TAXATION AS A PHASE-OUT STRATEGY FROM MOZAMBIQUE'S FOSSIL FUEL INDUSTRY

Centro para Democracia e Direitos Humanos

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TAXATION AS A PHASE-OUT STRATEGY FROM MOZAMBIQUE'S FOSSIL FUEL INDUSTRY

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This study, published by the Centre for Democracy and Human Rights (CDD), is part of the project "Taxation as a phase-out strategy from Africa's fossil fuel industry", implemented in partnership with the Tax Justice Network Africa (TJNA).

The project seeks to explore tax scenarios and strategies to shrink the operating space of Africa's fossil fuel industry while pivoting to renewable energy, focusing on Nigeria and Mozambique. CDD is the implementing partner of the project in Mozambique.

Maputo, November 2025

Executive Summary

Mozambique's energy economy is deeply shaped by fossil fuels, both as a major exporter and as a net importer. Coal from Tete and natural gas from the Rovuma Basin account for over 50% of total exports and a growing share of foreign exchange earnings. Yet, Mozambique imports all refined petroleum products, making it vulnerable to international price volatility and supply disruptions. This dual dependency exposes the country to macroeconomic instability, while reinforcing structural reliance on fossil fuels for fiscal revenues. The challenge, therefore, is not only to manage extraction efficiently but to prepare for a gradual transition away from fossil dependence toward a more diversified, resilient, and low-carbon economy.

The current fiscal regime for fossil fuels remains heavily skewed towards multinational extractive companies. Concession contracts often include broad tax exemptions, low royalty rates–typically 2–6% for gas and coal, compared with 10–20% in peer economies–and stability clauses that "freeze" fiscal terms for up to 30 years (EITI, 2021). Such provisions severely limit the State's capacity to capture economic rents. Despite vast reserves–more than 20 billion tonnes of coal and 125 trillion cubic feet of natural gas–the extractive sector's fiscal contribution remains modest: in 2022 it accounted for less than 8% of total government revenue (CGE, 2023), far below the 20–40% average achieved by Nigeria and Angola during peak oil years (IMF, 2024). This imbalance has constrained Mozambique's fiscal space. Public debt has exceeded 100% of GDP since 2016, while key social sectors remain underfunded: only 55% of the population has access to electricity and half lack access to clean water (END, 2025). Climate shocks such as Cyclone Idai – which caused damages equivalent to 10% of GDP – highlight the urgency of strengthening domestic resource mobilisation.

In this context, the energy transition has a dual meaning for Mozambique. As an exporter, it implies progressively reducing the weight of fossil fuels in exports and public revenue, while investing in value-added industries and renewable energy infrastructure. As an importer and domestic consumer, it means reducing dependence on petroleum-based fuels in transport, manufacturing, and services sectors that remain almost entirely fossil-dependent. The transition therefore requires both economic diversification and technological transformation, ensuring that decarbonisation contributes to growth, employment, and energy access rather than constraining them.

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The fiscal cost of current incentives is significant. Mozambique's generous tax holidays, exemptions on VAT and customs duties, and reduced corporate income tax rates translate into large fiscal expenditures that are neither transparent nor systematically evaluated. These foregone revenues could otherwise finance climate adaptation, infrastructure, and social protection. Correcting these imbalances is not only a matter of fiscal efficiency but a precondition for long-term energy and climate resilience.

In parallel, the European Union's Carbon Border Adjustment Mechanism (CBAM) introduces new dynamics for Mozambique's energy and industrial policy. The CBAM applies a carbon price on imports of carbon-intensive goods–such as aluminium, steel, and cement–to prevent "carbon leakage" and align global production with the EU's climate goals. For Mozambique, this mechanism has asymmetric effects. On one hand, Mozal, the country's sole aluminium smelter, benefits from relatively low carbon intensity, improving its position in the global cost ranking from 49th to 44th after CBAM implementation. On the other, CBAM revenues are collected by the EU, not by producer countries, representing a lost fiscal opportunity for Mozambique.

To address this, there three fiscal options: (i) using carbon offsets to comply with CBAM, which offers limited domestic benefit; (ii) introducing an economy-wide carbon tax, which is comprehensive but may burden consumers; and (iii) adopting a targeted carbon tax for the aluminium sector, which balances competitiveness, fiscal returns, and climate effectiveness. The latter emerges as the most pragmatic and equitable path, ensuring that CBAM-related costs are retained domestically and reinvested in clean energy and industrial modernization.

This approach aligns with a broader framework of "Taxation as a Phase-Out Strategy", proposed by this study: "Taxation as a Phase-Out Strategy" should become a central pillar of Mozambique's transition agenda. This approach would combine phasing out unnecessary fossil fuel incentives with introducing new instruments to internalise environmental costs and mobilise revenues for the transition. A practical reform package could include a gradually increasing carbon levy, windfall-profit taxation when global prices surge, and stricter environmental and flaring penalties. Revenues from these instruments should be ring-fenced within a Sovereign Wealth or Green Transition Fund to finance renewable energy, climate adaptation, and rural electrification

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Aligning royalty rates for coal and gas with regional averages (10–15%) and replacing discretionary exemptions with rules-based depreciation and transparent fiscal reporting could significantly strengthen Mozambique's fiscal position.

Finally, the study outlines the need for a coherent fiscal regime for renewables. While Mozambique's current legal framework–the Electricity Law (2022), Renewable Energy Policy and Strategy (2014), and National Renewable Energy Plan (PNER)–sets ambitious targets for achieving 62% renewable energy use by 2030, fiscal instruments remain fragmented. The government could adopt time-bound VAT and customs exemptions for renewable equipment, tax credits for green investments, and differentiated land taxation for renewable concessions. Coupled with targeted support for households adopting solar systems or clean cooking technologies, these measures would ensure that fiscal policy not only reduces fossil fuel dependence but actively drives an inclusive and just energy transition.

Recommendations

The proposed recommendations are grouped into two complementary pillars that respond to Mozambique's dual challenge: reforming the fossil fuel fiscal regime to strengthen revenue mobilisation and linking taxation to the national energy transition agenda.

Group 1 – Fiscal Reform and Revenue Mobilisation

(1) Rationalise and Reform Fossil Fuel Tax Incentives

Review and progressively phase out unnecessary fiscal exemptions, preferential regimes, and stability clauses granted to coal and gas megaprojects. Priority should be given to correcting overly generous provisions on VAT, customs duties, and corporate income tax, while tightening rules on loss carry-forwards, accelerated depreciation, and thin capitalisation.

(2) Introduce Environmental and Windfall Taxes

Establish targeted environmental taxes – including carbon levies, methane charges, and flaring penalties – to internalise the environmental costs of fossil fuel extraction and use. Implement a windfall profits tax on LNG and coal operators during commodity price booms to capture extraordinary rents and stabilise public revenues.

(3) Enhance Transparency and Governance in Fiscal Management

Mandate the public disclosure of all tax incentive agreements, fiscal exemptions, and related revenue flows under the Extractive Industries Transparency Initiative (EITI) framework. Strengthen parliamentary and civil-society oversight of fiscal policy in the extractive sector to ensure accountability and equitable use of public resources.

Group 2 – Linking Taxation to the Energy Transition

(1) Earmark Fossil Fuel Revenues for Renewable Investment

Channel a defined share of fossil fuel tax revenues into a Green Transition Fund. Resources should finance solar, wind, hydro, and storage infrastructure, as well as climate adaptation and rural electrification initiatives.

(2) Integrate Fiscal Policy with Energy Transition Planning

Develop a coherent fiscal strategy that explicitly links fossil fuel taxation to incentives for renewable energy development. This should include VAT exemptions for clean-technology imports, tax credits for green investments, and reduced land and property taxation for renewable energy concessions.

(3) Support Inclusive Transition Through Targeted Incentives

Design progressive fiscal measures to make the energy transition socially inclusive. These could include tax rebates or subsidies for households adopting solar home systems or clean cooking technologies; investment allowances for public-sector renewable projects; and performance-based incentives for private investors who meet local content, employment, and sustainability criteria.

ABBREVIATIONS

ARENE – Energy Regulatory Authority

CSO – Civil Society Organisation

DGI – General Directorate of Taxes

EITI – Extractive Industries Transparency Initiative

EPCC – Exploration and Production Concession Contract

EPA – Environmental Protection Agency

FDI – Foreign Direct Investment

FMO – Budget Monitoring Forum

FUNAE – Energy Fund

GCF – Green Climate Fund

GDP – Gross Domestic Product

GHG – Greenhouse Gas

GoM – Government of Mozambique

IMF – International Monetary Fund

IRPC – Corporate Income Tax

IVA / VAT – Value Added Tax

LNG – Liquefied Natural Gas

MIREME – Ministry of Mineral Resources and Energy

MZN – Mozambican Metical

NGO – Non-Governmental Organisation

PNER – National Renewable Energy Plan

PPP – Public–Private Partnership

REDD+ – Reducing Emissions from Deforestation and Forest Degradation Plus

SISA – Property Transfer Tax

TA – Administrative Court

TFEC – Total Final Energy Consumption

UN – United Nations

ZEV – Zero Emission Vehicle

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1. Introduction

The fossil fuel industry has long been presented as a driver of development in resource-rich African countries, yet its devastating environmental, social, and economic impacts are increasingly evident. In Mozambique, the discovery of vast natural gas reserves in Cabo Delgado was initially celebrated as a pathway to prosperity. However, the country now faces a dual challenge: managing the escalating risks of climate change while remaining locked into a development model centred on fossil fuels. This trajectory threatens to exacerbate inequality, deepen economic vulnerabilities, and delay the urgently needed transition towards renewable energy sources.

Coal, exploited on a large scale since the early 2010s, and natural gas, whose offshore extraction in the Rovuma Basin is among the most promising in the world, are currently one of the main sources of revenue from the extractive sector. These resources have the potential to generate substantial fiscal revenues, create jobs, and finance investments in infrastructure and public services. However, the experience of Mozambique with coal and other gas projects in Inhambane shows that the fossil fuel industry is characterised by volatile revenues with an impact on economic growth, potential to increase social conflicts, if there is no responsible and sustainable management (Bebbington et al. 2018; Brynildsen and Nombora 2013; Lesutis 2019).

Against this backdrop, taxation emerges as a crucial policy tool to reshape incentives and disincentives in Mozambique's extractive economy. The literature suggests that by revisiting the fiscal regime that underpins fossil fuel investments, Mozambique could strengthen public revenues and expenditures. This, in line with the principles of transparency, accountability, and good governance, can also support the government in its energy transition strategy, making resources available to redirect public expenditures and investors' interest toward renewable energy and a just transition. In this sense, taxation can serve as both a phase-out strategy from fossil fuels and as a lever for accelerating climate-resilient and inclusive development.

This study is part of a broader research initiative exploring tax scenarios and strategies to shrink the operating space of Africa's fossil fuel industry (Focusing on Nigeria and Mozambique) while promoting renewable energy alternatives.

1. Introduction

In Mozambique, the project is implemented by the Centre for Democracy and Human Rights (CDD) in partnership with the Tax Justice Network Africa (TJNA). The general objective of the study is to conduct a comprehensive analysis of Mozambique's fiscal regime for the fossil fuel industry, assessing its transparency, governance, and impacts, while identifying reforms that could discourage fossil fuel expansion and incentivise investments in just energy transition initiatives.

The specific objectives are to: i) provide a full taxonomy and mapping of profit- and cost-based tax incentives in the fossil fuel sector; ii) evaluate the transparency, efficiency, effectiveness, and wider governance performance of these incentives; iii) assess Mozambique's climate and decarbonisation profile and the associated costs of continued fossil fuel dependency; iv) recommend fiscal reforms that could support a fair transition by reallocating incentives and revenues toward renewable energy and climate-resilient development.

This study is organised into twelve sections that together provide a comprehensive analysis of taxation as a phase-out strategy from Mozambique's fossil fuel industry. Section one introduces the research problem, objectives, and rationale, showing how taxation can discourage fossil fuel expansion while promoting a just energy transition. Section two outlines the mixed-methods approach combining literature review, fiscal analysis, and qualitative inquiry. Section three reviews environmental taxation theory, the role of environmental taxes in broader fiscal systems, and international experiences. Section four analyses Mozambique's fossil fuel industry, while section five examines the legal, regulatory, and institutional framework governing it. Section six explores the national energy transition profile and its alignment with climate goals. Section seven discusses taxation as a phase-out strategy through fiscal and non-fiscal measures and two case studies – TotalEnergies' LNG and Vulcan's coal operations. Section eight assesses the fiscal regime for renewables, section nine analyses the Carbon Border Adjustment Mechanism (CBAM), and the final three sections present conclusions, recommendations, and references.

2. Methodology

This study employed a mixed-methods approach, combining a comprehensive literature review, quantitative data analysis, and qualitative inquiry to assess the fiscal, economic, and environmental implications of Mozambique's tax incentives for the fossil fuel industry and their role in a just energy transition.

In the first phase, a systematic literature review was undertaken to establish the theoretical and empirical foundation of the study. The review focused on five themes: the governance of tax incentives; transparency and accountability in the extractive sector; climate and energy transition policies; socio-environmental impacts of fossil fuel projects; and international best practices for phasing out fossil fuel subsidies. National sources included the General Tax Code, Petroleum and Mining Laws, the Investment Law, and regulations from MEF, MIREME, and AT. Civil society reports (e.g., JA, CDD, SEKELEKANI) provided insights into the opacity and inefficiency of incentives, particularly around LNG projects in Cabo Delgado. International frameworks from the OECD, IGF, EITI, and the Africa Mining Vision were used to benchmark Mozambique's fiscal regime. Comparative lessons were drawn from countries such as South Africa (carbon tax), Angola (petroleum tax expenditures), and Nigeria (oil revenue capture mechanisms).

The study then applied a quantitative approach to measure the fiscal cost of tax incentives and the revenue foregone by the State. Data from the National Statistics Institute (INE) were used to analyse production, exports, and investment trends; the Bank of Mozambique provided information on FDI and profit repatriation; and the MEF's Fiscal Risk Reports and Budget Execution Reports supplied figures on tax expenditures and subsidies.

To complement quantitative findings, semi-structured interviews were conducted with policymakers, legal experts, and civil society actors. These interviews explored the political economy of tax incentives, oversight challenges, and pathways for reform. Stakeholder mapping classified actors by influence and interest, highlighting reform champions and institutional blockages. Additionally, qualitative content analysis of policy papers, laws, and media sources helped identify narratives around fiscal justice and the role of fossil fuels in national development.

3. Literature Review

3.1. Theory of Environmental Taxation and carbon tax

Environmental taxation is an economic instrument that seeks to internalise the environmental costs associated with polluting activities, encouraging sustainable practices while discouraging behaviours that are harmful to the environment and public health. The theory of environmental taxation is based on the principle that taxes can be used as corrective instruments to address negative externalities such as pollution. Inspired by Pigou (1920), this approach – known as Pigouvian taxation – proposes that the imposition of a tax on polluting activities corrects market failures by forcing producers and consumers to internalise social costs that would otherwise be ignored in their decision-making. In this way, it encourages emission reductions and more efficient consumption of goods and services, bringing production closer to the socially optimal level (Lans Bovenberg and Goulder 2002; Rubio and Escriche 2001).

The ideal tax would be set at the level of the marginal external damage, i.e., the additional cost borne by society when one more unit of a good is produced or consumed. By reflecting this cost in the price, the buyer pays the full social cost, and the market functions more efficiently. This reasoning can be applied in a differentiated way according to energy sources: for example, electricity generated from coal emits far more CO_2 than electricity from natural gas or wind power. Thus, different tax rates can be established for different electricity sources, or each tonne of CO_2 emitted can be taxed directly.

In practice, however, setting a theoretically ideal environmental tax is extremely difficult. Estimating marginal damages is complex, particularly when they only materialise in the future (as with climate change) or vary greatly across space (as with air pollution). Moreover, direct measurement of emissions is not always feasible, requiring the use of proxies such as the amount of fuel burned. In such cases, the tax tends to deviate from the theoretical ideal, but it remains a workable and straightforward tool for reducing environmental externalities and aligning private decisions with social efficiency objectives (Fullerton, Leicester, and Smith 2008; Williams 2016).

In Mozambique, this debate can be framed through the Specific Consumption Tax (ICE), which applies to certain goods produced domestically or imported. At present, the ICE is selectively applied to products considered luxury, superfluous, or harmful to health – such as alcoholic beverages, tobacco, and vehicles – with rates ranging from 15% to 75% .

3. Literature Review

3.1. Theory of Environmental Taxation and carbon tax

Although not yet applied directly to fossil fuels, the ICE provides an institutional and conceptual foundation that could inspire the introduction of an environmental tax targeting carbon emissions. The underlying principle is straightforward: the burning of fossil fuels is the primary driver of climate change, whose economic and social impacts are already tangible – from declining agricultural productivity and infrastructure destruction caused by cyclones to rising public health costs. Moreover, the combustion of gas and oil generates local air pollution, responsible for millions of premature deaths globally. This also applies to areas of coal exploitation. Putting a price on carbon seeks to correct these externalities by capturing part of the social costs and internalising them in the market (Confederation of Economic Associations of Mozambique 2020).

Carbon taxation operates in two main ways: first, it makes polluting options more expensive relative to clean alternatives – for instance, coal exploitation becomes more costly than investing in solar energy; second, it ensures that emitters bear the costs of the pollution and greenhouse gases they release. There are several policy approaches through which countries can price carbon. A carbon tax directly targets the production of greenhouse gas emissions or the fuels that generate them, making carbon-intensive goods and services more expensive. An emissions trading system (ETS) – also known as cap-and-trade – sets a maximum pollution limit (cap), requiring producers to purchase allowances to cover their emissions. The price of these allowances is determined by supply and demand and rises as pollution levels approach the cap. Many countries have adopted carbon pricing instruments, with varying results but, overall, positive outcomes in terms of emission reductions and technological innovation.

There are multiple policy instruments available for reducing greenhouse gas emissions, including emission taxes, ETSs, tradable permits, technology standards, and subsidies for low-carbon alternatives. The economic literature generally highlights that the most efficient instruments are those that combine incentives with flexibility, allowing markets to determine, across different methods and emitters, which abatement options are least costly (van den Bergh et al. 2021; Requate 2005). This is precisely the strength of environmental taxes and ETSs: they internalise the social cost of pollution while leaving firms and consumers free to choose how best to adjust their behaviour.

By contrast, command-and-control instruments, such as technology or performance standards, often impose rigid solutions and provide limited incentives for emission reductions beyond the minimum required (Blackman, Li, and Liu 2018; Liu et al. 2014). Subsidies for cleaner alternatives can accelerate adoption but may distort market signals, encourage rent-seeking behaviour, and fail to ensure that abatement occurs at the lowest social cost (Hutchinson, Kennedy, and Martinez 2010; Tarola and Vergari 2024). In practice, the choice of instrument depends not only on economic efficiency but also on administrative capacity, uncertainty, and monitoring and enforcement costs.

3.2. Environmental Taxes and the Broader Tax System

Environmental taxes do not only serve to correct externalities; they also generate revenue, which can be a significant advantage in reducing (or preventing increases in) other taxes, financing public goods, addressing distributive goals, or supporting fiscal consolidation. This dimension introduces the debate on the so-called “double dividend”: beyond correcting pollution, the revenues could enhance overall efficiency by enabling cuts in pre-existing distortionary taxes (such as income tax) (Alexeev, Good, and Krutilla 2016; Freire-González 2018).

For example, in Mozambique, the excise tax applied to products such as sugar, soft drinks, and alcohol not only discourages harmful consumption but also raises revenues that could, in principle, be redirected to reduce other taxes or fund public health programmes. In this way, the excise tax illustrates how environmental or health-related taxation can serve multiple policy objectives simultaneously.

However, the strong version of this argument does not always hold. Later studies showed that the fiscal interaction effects with pre-existing taxes (particularly on labour and capital) reduce the real returns to factors of production – either directly or indirectly via higher prices of polluting goods – thus creating welfare losses (Williams 2016). In central scenarios, the additional cost of this interaction tends to outweigh the gain from revenue recycling, meaning there is no strong “double dividend”.

For Mozambique, for example, while increasing the excise tax on alcohol and sugary drinks may improve public health outcomes and raise revenues, it also increases the price of products commonly consumed by low-income households. Basic sugar-based goods such as bread rolls with sugar, simple biscuits, or inexpensive soft drinks form part of the everyday diet of poorer families.

Price increases in these products can disproportionately reduce purchasing power and raise the cost of living, producing regressive effects that may outweigh the intended welfare gains.

The literature, in short, does not converge on a single conclusion regarding whether interactions with the broader tax system imply an optimal environmental tax above or below marginal damage; the outcome depends on the institutional context and the design of the policy.

3.3. International Experiences with Fossil Fuel Taxation

Authors such as Liu (2024) emphasise that green taxation is only effective when integrated into broader public policies, capable of linking the energy transition with objectives of social justice and economic development. The author also notes that China has established a comprehensive green tax system, in which the environmental protection tax, resource tax, and arable land occupation tax serve as its core elements. These are complemented by a range of other instruments, including the consumption tax (covering eight categories), the vehicle purchase tax, vehicle and vessel tax, urban land use tax, and the urban maintenance and construction tax. Collectively, this framework plays a crucial role in promoting environmentally friendly practices and driving high-quality economic and social development.

Sweden was a pioneer, introducing a carbon tax in 1991 accompanied by a strategy of gradual and predictable increases, which reduced emissions by more than 25% without compromising economic growth. Canada, in turn, implemented a national carbon pricing system in 2019, incorporating revenue recycling mechanisms to support households and businesses, thereby strengthening the social acceptability of the measure. Within the European Union, other member states such as Finland and France also adopted carbon taxes to complement the EU Emissions Trading System (EU ETS). In Africa, South Africa introduced the continent's first explicit carbon tax in 2019, starting at R120 per tonne of CO_2e (around US$8), with allowances and offsets to ease the transition for energy-intensive industries. In Latin America, countries such as Chile, Colombia, and Mexico have adopted more modest carbon taxes, generally ranging from US$3 to US$5 per tonne. Although limited in scope, these represent important steps towards integrating carbon pricing into fiscal and environmental policy frameworks (Heerden et al. 2016; Kabundu, Mbanga, and Makasa 2022; Liu 2024; Resplandes et al. 2025; World Bank 2025)

ETSs constitute another market-based mechanism for carbon pricing. The EU ETS remains the most established, but several emerging economies have begun experimenting with similar systems. China launched the world's largest ETS in 2021, initially covering the power sector and gradually expanding to other industries, with the aim of creating a unified national market. South Korea operates an ETS covering more than 600 entities, representing nearly 70% of national emissions (Ritchie and Rosado 2022; World Bank 2025).

Beyond explicit carbon pricing, many resource-rich countries rely on royalties and production taxes in mining and petroleum sectors to capture resource rents. The case of Norway is often cited: its petroleum tax regime applies a special tax of 56% on profits, in addition to a 22% corporate income tax, with revenues largely channelled into the sovereign wealth fund, which underpins long-term economic stability and finances decarbonisation policies (Walby and Granly 2025).

4. Fossil fuel industry in Mozambique

The fossil fuel industry in Mozambique is characterised by the presence of both domestic and, predominantly, multinational corporations engaged in the exploration and production of coal and natural gas. The principal extraction zones are geographically concentrated in three provinces: Tete (coal), Inhambane (onshore gas), and Cabo Delgado (offshore gas in the Rovuma Basin). Each of these regions is marked by distinct technological configurations, production volumes, and socio-economic impacts (Lesutis 2019; Malipa, Mbalango, and Rui Mate 2024; Tovele 2024).

The key actors in sector are mainly major international corporations, including Vale S.A., Rio Tinto and currently Vulcan, in coal, and TotalEnergies, ExxonMobil, and Eni in natural gas. These companies operate under concession and production-sharing agreements with the Mozambican state. Alongside these multinationals, a range of smaller national and foreign firms participate in specific stages of the value chain, particularly in transport, logistics, and the supply of goods and services (Langa 2013; Langa and Mandlate 2013). The state itself, through the Ministry of Mineral Resources and Energy (MIREME) and the national oil company, Empresa Nacional de Hidrocarbonetos (ENH), retains shareholding interests and exercises regulatory and supervisory functions.

Table 1. Mapping Mozambique's fossil fuel industry

Resource	Area/Location	Main Operator(s)	Current Situation
Gas	Rovuma – Area 1 (Cabo Delgado)	TotalEnergies (lead), Mitsui, ONGC, ENH	Mozambique LNG, valued at USD 20 billion; suspended since 2021, expected to resume in 2025
Gas	Rovuma – Area 4 (Cabo Delgado)	Eni, ExxonMobil, CNPC, Galp, KOGAS, ENH	Coral Sul FLNG in operation since 2022 (3.4 mtpa); Rovuma LNG in pre-FID stage, postponed to post-2026
Gas	Pande and Temane (Inhambane)	Sasol, ENH	Onshore production for export to South Africa and domestic supply; Temane Thermal Power Plant (450 MW) under commissioning
Coal	Moatize (Tete)	Vulcan Mozambique (Adani Group)	Large coal mine, contested resettlements; under strong environmental and judicial pressure
Coal	Chirodzi (Tete)	Jindal	Active production, reported social and environmental issues
Coal	Benga (Tete)	ICVL	Ongoing operation, logistical challenges and environmental contestation

In the case of coal, Tete has emerged as one of the largest production hubs in Southern Africa, with both open-pit and underground mines. Production is overwhelmingly export-oriented, with Asia constituting the primary destination market. In the natural gas subsector, the Rovuma Basin represents a globally strategic asset, with reserves estimated at over 100 trillion cubic feet. Exploitation of this resource is tied to massive investments in liquefaction and liquefied natural gas (LNG) export infrastructure, targeting international markets, particularly in Europe and Asia (Standard Bank 2014, 2019).

The geographical configuration of extractive activities directly shapes logistics, costs, and localised impacts. Coal mines in Tete rely on intricate transport networks, notably the Nacala Corridor, which connects production sites to deep-water ports for export. By contrast, onshore gas production in Inhambane is of a smaller scale, with output divided between domestic consumption and exports to South Africa. Offshore operations in Cabo Delgado require complex floating and port infrastructures, complemented by an extensive onshore support network for services and logistics.

Taken together, these dynamics underscore the central role of foreign capital and large-scale infrastructure in Mozambique's fossil fuel industry, as well as the structural dependence on international markets. While these activities promise significant fiscal revenues and employment generation, they also expose the country to the risks associated with global commodity cycles, infrastructural bottlenecks, and socio-environmental pressures at the local level.

4.1. Trends in Investment, Production, and Export

National account data show that the fossil fuel sector has attracted billions of dollars in investment, primarily concentrated in natural gas megaprojects. The period between 2010 and 2014 was characterised by substantial capital inflows into coal, which positioned Tete Province as a regional hub of production. However, this momentum slowed in subsequent years due to a combination of falling international prices and persistent logistical constraints. From 2017 onwards, investment patterns shifted decisively towards natural gas, spurred by rising global demand for liquefied natural gas (LNG) as a transitional energy source and as an alternative to coal and oil.

In terms of production, coal has remained a key component of Mozambique's export profile. Nevertheless, natural gas is expected to gain increasing prominence as liquefaction plants in Cabo Delgado become fully operational. The projections of Mozambique's macroeconomic indicators reveal the country's structural dependence on fossil fuels, especially coal and, more recently, natural gas. Between 2019 and 2021, nominal GDP growth remained relatively modest, reflecting fluctuations in coal prices and logistical bottlenecks. However, the projections for 2023–2025 demonstrate that GDP expansion, as well as overall economic performance, is highly contingent upon the effective exploitation of natural gas resources.

Under the base scenario[1], Mozambique's GDP is projected to grow from MT 1,313,907 million in 2023 to MT 1,687,738 million in 2025 if natural gas projects proceed as planned. In contrast, without gas revenues, GDP in 2025 would be approximately MT 1,600,383 million – nearly MT 87 billion lower. This discrepancy illustrates the fiscal and economic risks of a resource-dependent growth model.

Such reliance on fossil fuels exposes the country to considerable vulnerability. International price volatility, environmental risks, and global decarbonisation pressures all threaten the sustainability of this growth trajectory. In essence, while coal positioned Mozambique as a major exporter in the early 2010s, the projections show that the future of the economy is increasingly tied to the exploitation of natural gas, perpetuating dependency on a sector with high risks and uncertain returns.

[1]These estimates are presented within the 2023–2025 medium-term fiscal scenario, considering the start of natural gas production in Area 4 – Coral Sul Project in the fourth quarter of 2022, as well as the gradual improvement in the Russia–Ukraine conflict situation.

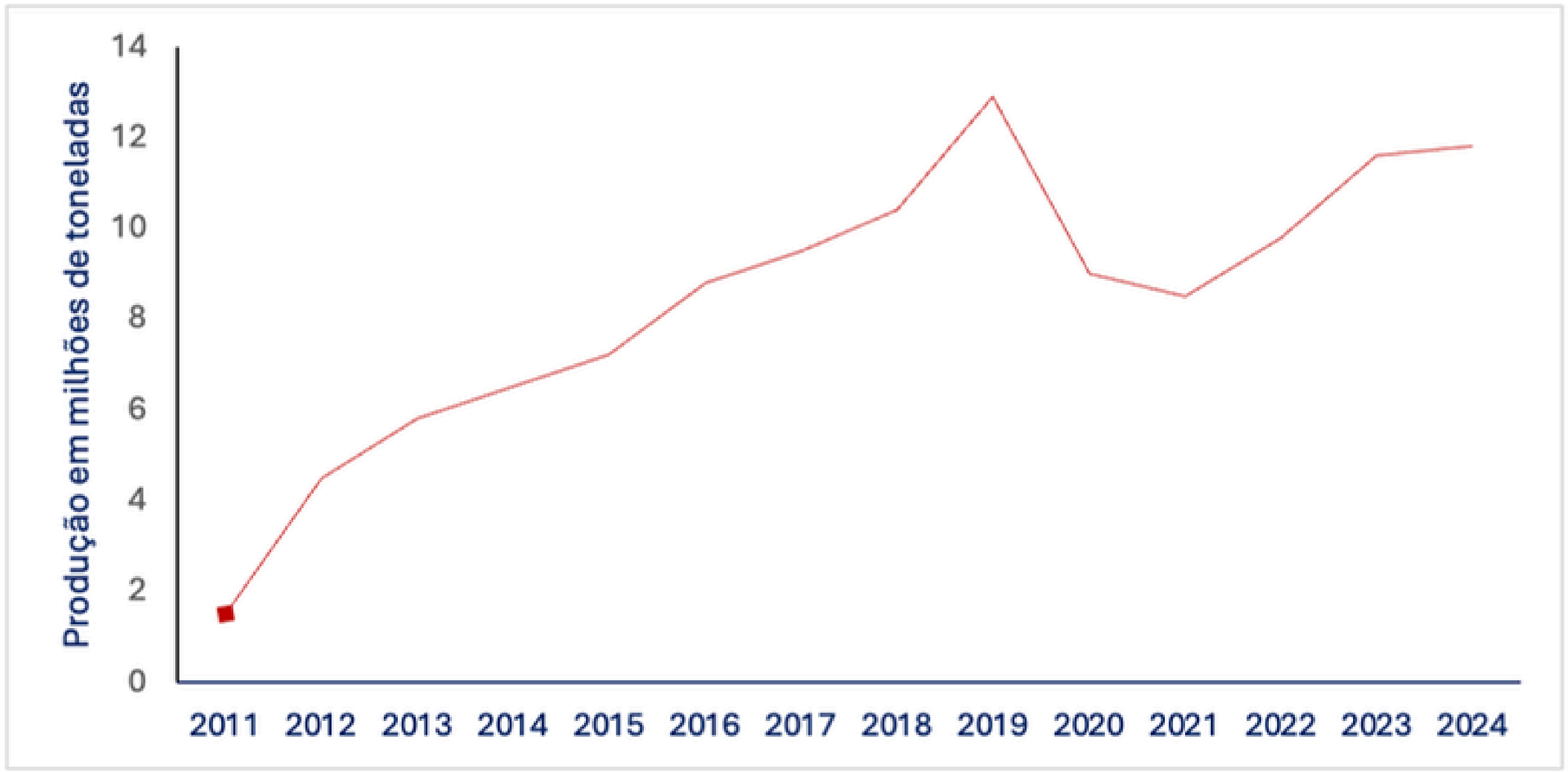
The dynamics of exports confirm this structural shift. In 2022, the country relied almost exclusively on coal, which accounted for around USD 2 billion in exports, while natural gas had only a residual presence. Just two years later, in 2024, the picture changed radically: natural gas rose to USD 1.97 billion, practically on par with coal at 2.01 billion. Overall, in just three years, gas moved from being marginal to rivalling coal, establishing itself as the main vector of change in the export profile.

Case Study: Vulcan in Moatize, Tete (Coal)

The coal exploitation in Moatize, in Tete province, is one of the most relevant examples of the trajectory of the extractive industry in Mozambique. The mine was developed by Vale S.A. starting in 2007, with exports beginning in 2011[2]. The implementation of the project involved resettlements in Cateme and 25 de Setembro, between 2009 and 2011, which affected more than one thousand families. Shortly afterwards, in January 2012, protests broke out when communities blocked the railway line demanding better living conditions. These events illustrate, from early on, the social and economic tensions associated with coal in Tete.

[2]Araujo, G. (2021, December 21). Brazil's Vale to sell Moatize coal mine, Nacala corridor to Vulcan. Reuters. https://www.reuters.com/article/business/brazils-vale-to-sell-moatize-coal-mine-nacala-corridor-to-vulcan-idUSKBN2J011Y/

Figure 1. National coal production in Mozambique (2011–2024)



Source: Bank of Mozambique (2025)

Between 2011 and 2019, production grew sharply, reaching its peak in 2019 with around 12.9 million tonnes. However, the trend proved volatile. The pandemic and logistical constraints reduced production to close to 9 million tonnes in 2020 and 2021. In 2022, Vale completed the sale of the mine and the Nacala Logistics Corridor to Vulcan Minerals, a subsidiary of the Indian Jindal group, for USD 270 million, including a 10-year royalty agreement. Since then, production has remained in the range of eleven to twelve million tonnes, but under strong exposure to fluctuations in international demand. In 2023, official production stood at 11.6 million tonnes.

The fiscal regime applicable to coal is based on the Corporate Income Tax, with a base rate of 32 percent, and on royalties levied on the value of production. However, companies benefited from significant exemptions, such as the exemption from customs duties and VAT on the import of equipment, as well as accelerated depreciation. This set of incentives reduced the effective tax burden and limited the State's capacity to mobilize revenue. At the same time, weak institutional capacity made monitoring and transparency in the enforcement of legislation difficult. The result was a model in which fiscal benefits accrued mainly to multinational companies, while the social and environmental costs fell on local communities.

The negative impacts were particularly visible in the resettlements. The new houses presented cracks and structural deficiencies, the relocation sites distanced families from their fertile lands, and water sources became scarce. The impoverishment of resettled communities led to recurrent tensions with the authorities and the company. On the environmental front, soil degradation, air and water pollution, and deforestation were observed. Such externalities were rarely internalized in the economic calculation of the projects, resulting in additional costs for the State and a loss of livelihoods for the population.

The Moatize experience demonstrates the risks of excessive dependence on fossil resources. Coal from Tete boosted exports and revenues in the short term but left behind a legacy of social contestation and economic vulnerability. The risk of stranded assets is high within a 30–40 year horizon, given the global energy transition that is reducing demand for thermal coal. In this context, taxation emerges as an essential instrument to correct perverse incentives. The progressive elimination of exemptions, the introduction of royalties linked to quality and price, the application of a local carbon tax per tonne exported, and stricter penalties for environmental degradation are measures that could make investments less attractive while at the same time creating fiscal space to finance social and energy alternatives.

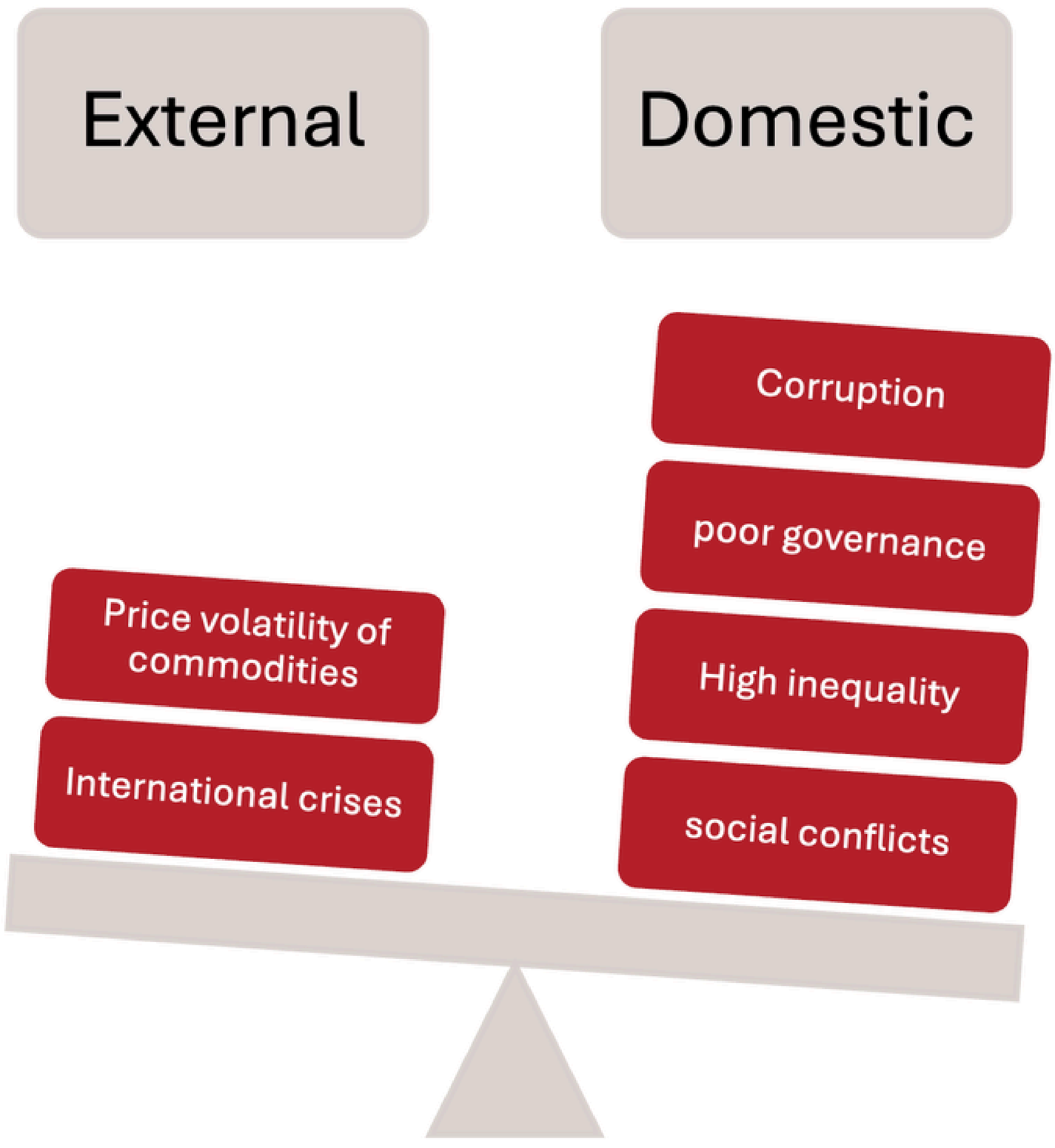
4.2. The “Resource Curse” Debate in Mozambique

The debate on the “resource curse” has become increasingly relevant in Mozambique as the country seeks to capitalise on its substantial coal and natural gas reserves. While these resources hold the potential to generate significant fiscal revenues, stimulate infrastructure investment, and create employment opportunities, they also expose the economy to high levels of volatility. Dependence on international commodity markets means that price shocks in coal or gas can quickly destabilise fiscal planning and exchange-rate stability, reinforcing a cycle of economic uncertainty (Nhabinde 2021).

Alongside volatility, the governance challenges associated with natural resource wealth are particularly critical. The influx of large-scale investments in the extractive sector has often been accompanied by concerns over corruption, elite capture, and weak institutional oversight (Hanlon 2022; Macuane, Buur, and Monjane 2018). This environment has fuelled inequalities, as revenues have not been evenly distributed across regions or social groups. In Tete Province, coal projects operated by Vale and other multinationals displaced thousands of households, many of whom reported inadequate compensation, loss of livelihoods, and deteriorating living conditions.

In Cabo Delgado, the discovery of world-class natural gas reserves has contributed to the escalation of armed insurgency since 2017, with militants exploiting local grievances over marginalisation, land dispossession, and the perceived exclusion of communities from the benefits of resource wealth (Morier-Genoud 2020).

Figure 2: Some of the key Issues in the Resource Curse Debate in Mozambique



5. Legal and Regulatory Framework

Mozambique's legal and institutional framework for fossil fuel exploitation is anchored in a dual system of mining and petroleum legislation adopted in 2014, complemented by subsidiary decrees, fiscal regulations, and environmental statutes.

Mozambique's legal framework for the mining sector aims to ensure transparency, competitiveness, and sustainable management of mineral resources. The Mining Law No. 20/2014 of 18 August regulates the prospecting, exploration, and exploitation of mineral resources, replacing the 2002 law. It is complemented by the Specific Tax and Fiscal Benefits Regime for Mining Activities (Law No. 28/2014 of 23 September), later revised by Law No. 15/2017 of 28 December and Law No. 15/2022 of 19 December. A series of decrees and ministerial diplomas[3] further define fiscal, environmental, and operational rules, while Resolutions No. 89/2013 of 31 December and No. 21/2014 of 16 May promote social responsibility and good governance in the extractive industry. Together, these instruments form a coherent legal foundation for regulating the mining sector, although enforcement capacity and institutional coordination continue to pose challenges.

With regards to gas, the key statute is the Petroleum Law No. 21/2014 of 18 August, that establishes state ownership of hydrocarbons, the licensing system, and the contractual models for exploration and production, such as concession and production-sharing agreements. It is complemented by the Specific Tax and Fiscal Benefits Regime for Petroleum Operations (Law No. 27/2014 of 23 September) and by Decree-Law No. 2/2014 of 2 December, which sets the special legal regime for the Rovuma Basin LNG projects in Areas 1 and 4. A broad set of decrees and ministerial diplomas[4] define operational, environmental, and fiscal rules, including licensing procedures, local participation, and the terms of exploration, production, and LNG development.

The institutional framework (Table 2) governing coal and natural gas exploitation in Mozambique involves a complex web of central, provincial, and local authorities, often with overlapping mandates. At the central level, the Ministry of Mineral Resources and

[3] Including Decrees No. 26/2004 of 20 August, No. 5/2008 of 9 April, No. 31/2015 of 31 December, No. 34/2019 of 2 May, No. 48/2022 of 13 October, and No. 76/2022 of 30 December; and Ministerial Diplomas No. 118/2022 of 21 November and No. 65/2022 of 15 June.

[4] Including Decrees No. 32/2015 of 31 December, No. 34/2015 of 31 December, Nos. 74–78/2016 of 30 December, No. 48/2018 of 6 August, Nos. 52–57/2018 of 3 September, No. 47/2019 of 5 June, No. 51/2019 of 12 June, No. 39/2020 of 12 June, No. 84/2020 of 18 September, Nos. 13 and 14/2021 of 1 April, and ministerial diplomas such as Nos. 66/2008, 272/2009, 31/2014, 210/2012, and 142/2012.

Table 2: Institutional Framework for Fossil Fuel Exploitation in Mozambique

Institution	Role / Responsibility	Relevance for Coal	Relevance for Natural Gas
Ministry of Mineral Resources and Energy (MIREME)	Defines policies, grants licences and concessions, oversees sector regulation.	Approves coal mining concessions (e.g., Moatize).	Oversees allocation of gas blocks and PSAs in Rovuma and Inhambane.
National Institute of Mines (INAMI)	Regulates mining activities, ensures compliance with the Mining Law.	Supervises coal exploration and production licences.	Limited direct role; coordinates with petroleum regulator.
Instituto Nacional de Petróleo (INP)	Regulates petroleum and natural gas operations, manages PSAs.	Indirect oversight (coal not included).	Central regulator for gas contracts with TotalEnergies, ExxonMobil, Eni, Sasol.
Empresa Nacional de Hidrocarbonetos (ENH)	State-owned company holding shares in petroleum/gas projects.	No formal participation in coal ventures.	Holds equity in Rovuma Basin projects (Areas 1 and 4) and in Sasol's Inhambane operations.
Tribunal Administrativo (TA)	External audit of State revenues, including extractive sector taxes and royalties.	Audits coal royalty payments and public revenue flows.	Reviews gas revenue flows and external financing arrangements.
Ministry of Economy and Finance (MEF)	Manages fiscal revenues, debt, and resource-related funds.	Receives coal royalties and taxes for the Treasury.	Key actor in LNG revenue management, sovereign wealth fund proposals.
Environmental Institutions (MITA / ANAC)	Assess Environmental and Social Impact Assessments (ESIAs), monitor compliance.	Approve and monitor coal resettlement and rehabilitation plans.	Regulate offshore/onshore LNG environmental licences, biodiversity impacts.
Parliament (Assembleia da República)	Approves sectoral legislation, oversees government contracts.	Debates mining legislation and fiscal regimes.	Approves petroleum agreements and fiscal reforms.
Civil Society & Research (e.g.: CESC, CIP, CDD…)	Independent monitoring, advocacy, and research on extractive governance.	Monitor social impacts of coal mining in Tete.	Monitor governance, transparency, and community rights in Cabo Delgado LNG projects.

Energy (MIREME), while its regulatory bodies – the Instituto Nacional de Minas (INAMI) for coal and the Instituto Nacional de Petróleo (INP) for gas – are charged with technical oversight. At the same time, the Empresa Nacional de Hidrocarbonetos (ENH) acts both as a commercial partner in petroleum projects and as a public entity with regulatory influence.

At the provincial and local levels, the institutional landscape is even more fragmented. Provincial directorates of mineral resources, environment, and finance are formally responsible for monitoring operations and community relations. However, district governments and municipal councils often demand parallel authorisations for resettlement plans, land use, and local content measures.

5.1. Fossil Fuel Tax Regime

Mozambique's fossil fuel tax regime is defined by a combination of general tax laws and specific regimes governing petroleum and mining operations. It is primarily based on the Specific Tax and Fiscal Benefits Regime for Petroleum Operations (Law No. 27/2014 of 23 September) and the Specific Tax and Fiscal Benefits Regime for Mining Activities (Law No. 28/2014 of 23 September), both of which entered into force on 1 January 2015 and were later amended by Law No. 14/2017 of 28 December and Law No. 15/2017 of 28 December . These regimes complement the general Corporate Income Tax Law (Law No. 33/2007 of 31 December) and apply to all entities engaged in extractive activities in Mozambique.

For the hydrocarbons sector, the Petroleum Production Tax (IPP) is levied monthly on the value of petroleum produced, with rates of 10 percent for crude oil and 6 percent for natural gas. Payments are typically made in cash, although the government retains the right to request payment in kind. In addition to the IPP, operators are subject to the Corporate Income Tax (32 percent), customs duties, and Value Added Tax (17 percent). Petroleum concessionaires also operate under a production-sharing mechanism, whereby output is divided between the State and the concessionaire according to contractual terms, ensuring state participation through the Empresa Nacional de Hidrocarbonetos (ENH).

In the mining sector, companies pay the Mining Production Tax (IPM), the Surface Tax (ISS), and the Mining Resource Rent Tax (IRRM). The IPM is calculated monthly based on the value of extracted minerals, with rates varying by commodity: 8 percent for diamonds, 6 percent for precious and semi-precious stones, 6 percent for heavy sands, and 3 percent for coal and base metals. The ISS is an annual fee determined by the size of the concession area, while the IRRM applies a 20 percent rate on net cash flows once the internal rate of return exceeds 18 percent.

Both regimes provide five-year exemptions from customs duties on imported capital equipment and selected goods, classified under Annex II of the respective laws, to encourage investment. Additional fees apply for licensing, renewal, and transfer of rights, as defined in the Petroleum Operations Regulation (Decree No. 34/2015 of 31 December) and the Mining Regulation (Decree No. 31/2015 of 31 December). These include charges for concession registration, development plan approval, and environmental licensing, ranging from MT 50,000 for minor requests to MT 2,000,000 for concession applications.

Extractive contracts may also include signature bonuses, typically 0.5 to 5 percent of project asset value, production bonuses triggered when output milestones are reached (e.g., 25,000 barrels of oil equivalent per day), and social contributions to institutional and community funds. Companies are further required to contribute to the Institutional Capacity-Building Fund and the Social Projects Fund to support training and local development in extraction zones.

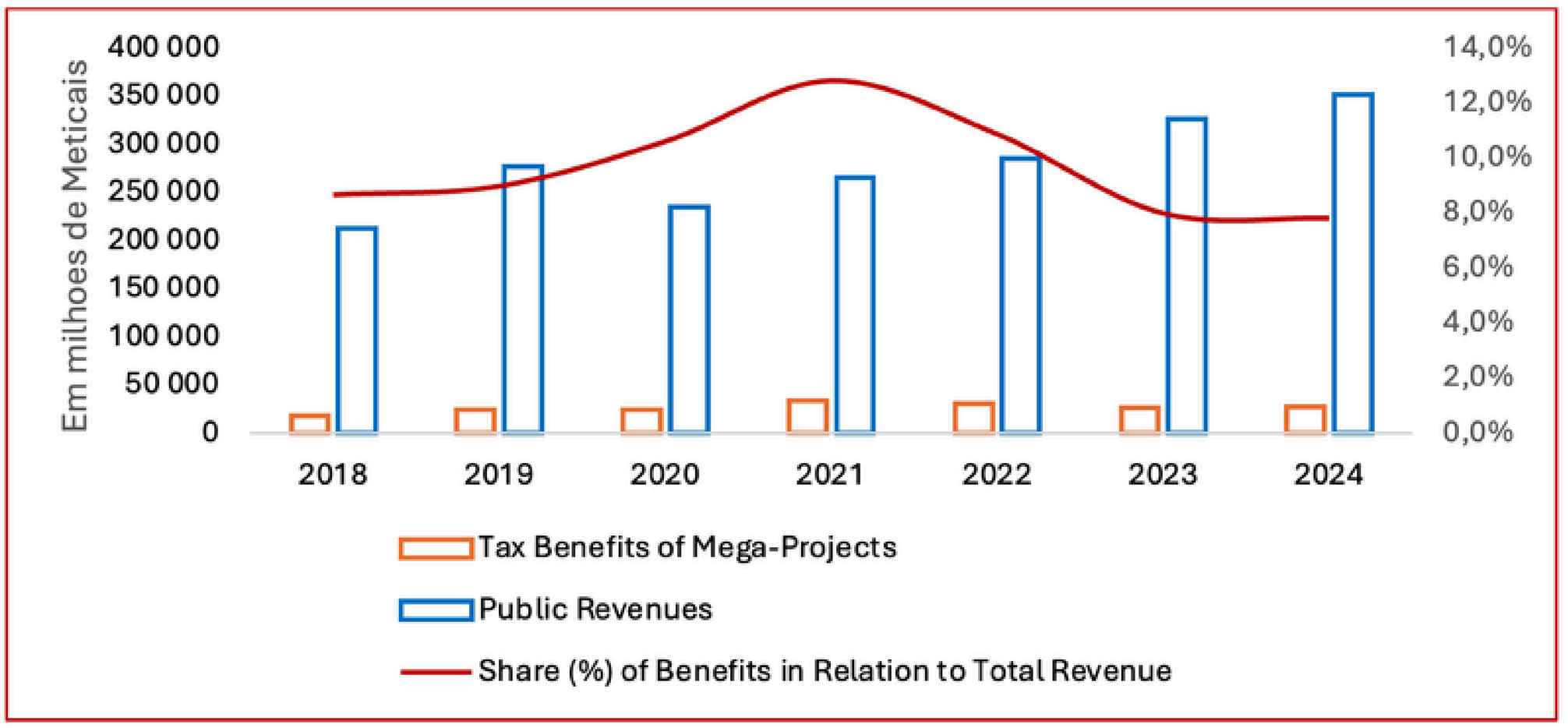
The regime offers both profit- and cost-based tax incentives. They include exemptions from customs duties, VAT, and excise taxes on imported equipment and materials, as well as reduced corporate income tax rates, accelerated depreciation, investment tax credits, and longer loss carry-forward periods. Some projects also benefit from fiscal stability clauses that guarantee unchanged tax conditions for a specified duration. While these incentives were intended to promote investment and technology transfer, they have often resulted in significant revenue losses and limited social returns, highlighting the need for more transparent, time-bound, and performance-based incentives that align with fiscal justice and equitable resource governance.

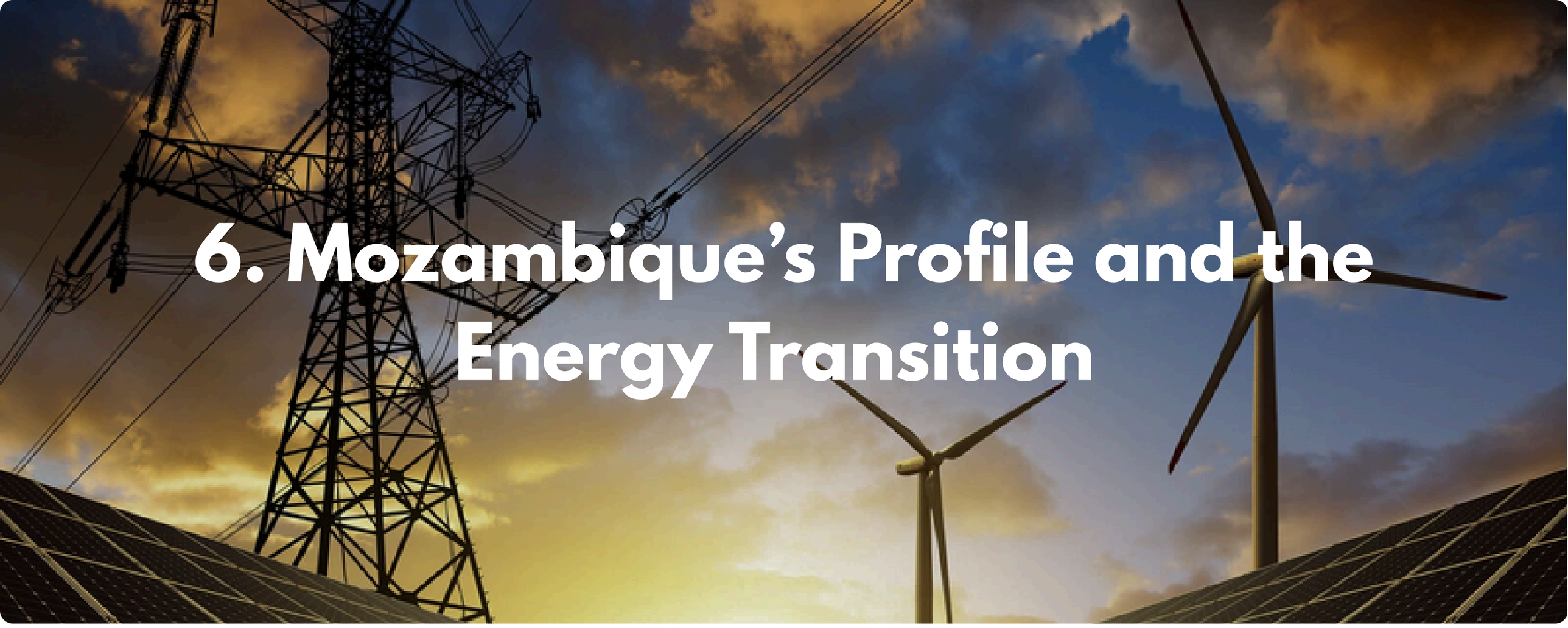
Additionally, oversight capacity within the Ministry of Economy and Finance (MEF), the Tribunal Administrativo, and sectoral regulators remains limited, weakening revenue monitoring and audit processes. Furthermore, the lack of environmental or carbon taxes means that the fiscal framework still does not internalize the environmental costs of fossil fuel extraction.

Official statistics in Mozambique do not provide a clear, sector-disaggregated estimate of the annual fiscal costs of tax incentives granted to the fossil fuel industry. Available evidence confirms that MNEs benefit from a wide array of profit- and cost-based tax expenditures, yet neither the Ministry of Economy and Finance nor the Administrative Court publishes company-level figures on foregone revenue. As a result, it is impossible to quantify with precision the degree to which incentives reduce the effective tax burden of these firms, even though independent observers argue that the magnitude is substantial and reduces Mozambique's ability to capture rents from fossil fuel projects.

The following chart confirms that the tax benefits associated with extractive sector mega-projects in Mozambique have represented a significant forfeiture of public revenue, reaching around 13% of total tax collection in 2021. This dynamic results from customs duty and VAT exemptions, immediate cost deductions, and the cost-oil regime – mechanisms that secure favorable conditions for investors but significantly reduce the tax base in the short term. While the model reinforces the country's competitiveness, it entails high opportunity costs for public finances, further aggravated by the fiscal stability clause, which constrains the adaptation of the regime to the requirements of sustainability and the energy transition.

Figure 3. Fiscal Costs of Fiscal Regime for Fossil Fuels





6. Mozambique's Profile and the Energy Transition

Mozambique has committed to international decarbonisation frameworks, including the Paris Agreement, and has set national targets through its Nationally Determined Contributions (NDCs). At the national level, the country has adopted the National Strategy for Mitigation and Adaptation to Climate Change 2013–2025 (GdM 2012) and a series of National Adaptation Plans (GdM 2018; GdM, IIED, and UEM 2019), prioritising climate resilience, clean technologies, and mitigation measures.

The country's NDCs emphasise both mitigation and adaptation, with a focus on renewable energy, forestry, and sustainable land management. However, the implementation of these commitments is constrained by institutional weaknesses, limited technical capacity, and the dominance of fossil fuel megaprojects in national planning. Furthermore, the country's developmental agenda continues anchored to fossil fuel extraction. The contradiction between projected growth in natural gas exports and the need to meet decarbonisation goals reflects the tension at the heart of Mozambique's development strategy.

In the energy sector, the Electricity Law (2022) and the Energy Master Plan (2014–2024) guide diversification of the energy matrix, while the Renewable Energy Policy and Strategy (2014) promotes solar, wind, hydro, and biomass development (A.R 2022; GdM 2014). The National Strategy for Sustainable Electrification (2020) sets the goal of universal energy access by 2030, with a focus on decentralised and sustainable solutions. At the same time, Mozambique continues to manage fossil fuel exploitation, particularly natural gas, under the Natural Gas Master Plan (2014), reflecting the tension between climate commitments and reliance on hydrocarbons for development.

The energy transition agenda operates within a complex institutional. The Ministry of Mineral Resources and Energy (MIREME) is the lead authority, supported by regulatory bodies such as the Instituto Nacional de Petróleo (INP) for hydrocarbons and the Instituto Nacional de Minas (INAMI) for coal.

The Empresa Nacional de Hidrocarbonetos (ENH) participates commercially in gas projects, while the Ministry of Land and Environment plays a central role in climate policy. Legally, the Petroleum Law (2014) and the Mining Law (2014) establish the foundations for fossil fuel exploitation, while the Renewable Energy Strategy (2011, updated 2022) and climate legislation guide transition efforts. However, overlaps and redundancies between institutions–particularly at central and provincial levels – often undermine coherence, delaying reforms needed to align extractive activities with transition goals.

The main challenges include Mozambique's high dependence on fossil fuel exports, limited fiscal transparency on tax incentives, and weak enforcement of environmental and social safeguards. Communities in Tete and Cabo Delgado continue to experience displacement and conflict linked to coal and LNG megaprojects, creating a significant governance challenge. Furthermore, the country remains highly vulnerable to climate shocks, as evidenced by recurrent cyclones and droughts.

On the opportunity side, Mozambique possesses abundant renewable energy potential – particularly solar, hydro, and wind resources, that remain underexploited. International climate finance and donor support present openings to scale up renewables, though these flows remain small compared to fossil fuel investments.

7. Tax as a phase-out strategy

Taxation is one of the most powerful instruments available to governments seeking to accelerate the energy transition. In Mozambique, the challenge is unique: the country appears on one side as a major exporter of fossil fuels – principally coal from Tete and natural gas from the Rovuma Basin – and on the other as a structurally dependent importer of refined petroleum products, which are essential for transport, electricity generation, and industrial use. This dual position requires a differentiated fiscal strategy: one that raises the cost of domestic fossil fuel extraction and export, while also addressing the vulnerability created by heavy reliance on imported fuels.

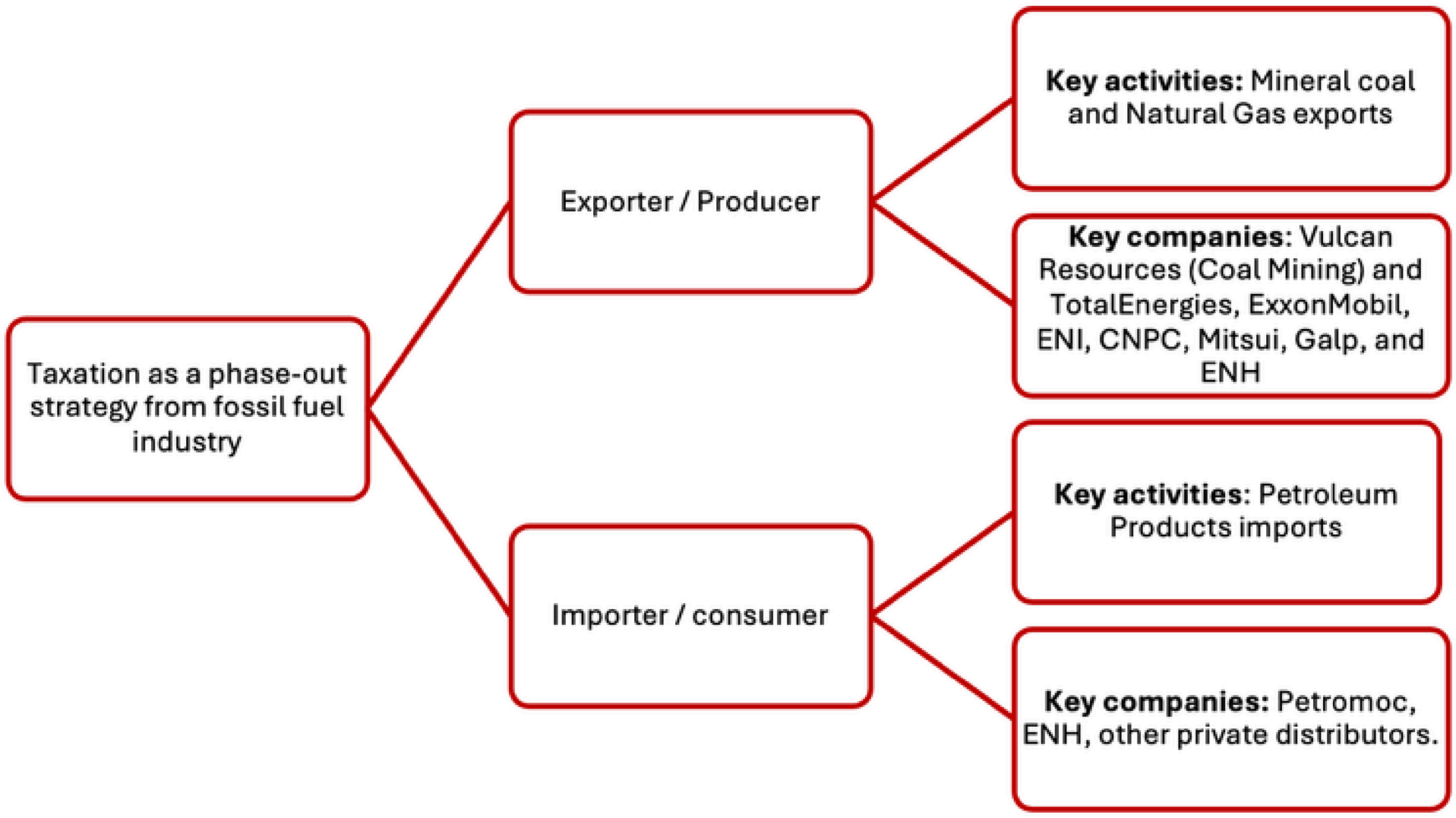
There are two complementary ways in which taxation can serve as a phase-out strategy in this context. The first is by penalising the extraction and expansion of coal and gas, using higher corporate income tax rates, royalties, windfall levies, or environmental taxes that internalise the social and ecological costs of extraction. The second is by restructuring the tax and subsidy framework for petroleum products, gradually reducing costly fuel subsidies and replacing them with targeted social protection measures, while simultaneously investing revenues into renewable alternatives. In this way, taxation becomes both a disincentive to fossil fuel dependency and a driver of investment in cleaner technologies.

This study intentionally focuses on the production aspect of Mozambique's fossil fuel economy, leaving the consumption element for a future study, given the country's minimal contribution to global emissions. Mozambique accounts for only 0.22% of total greenhouse gas emissions[5], indicating that domestic energy use has a limited impact on its overall carbon footprint. In contrast, fossil fuel extraction and export are the primary sources of both future carbon exposure and fiscal leverage.

For fossil fuel exports, Mozambique could deploy a range of fiscal reforms: adjusting royalties, tightening eligibility for tax incentives, phasing out accelerated depreciation and customs exemptions, and inserting sunset clauses into fiscal stability agreements. Progressive regimes could link effective tax rates to international price cycles, ensuring fairer rent capture during commodity booms.

[5] https://climatepromise.undp.org/what-we-do/where-we-work/mozambique

Figure 4: Taxation as a phase-out strategy from fossil fuel industry key dimensions for Mozambique



This would be particularly relevant for LNG projects in Cabo Delgado, where long-term contracts and volatile prices create opportunities for extraordinary profits. A carefully designed windfall tax on gas exports could both stabilise fiscal revenues and capitalise a green fund dedicated to energy transition investments (BdM 2020; Siúta and Mosca 2020).

Environmental taxes remain an important lever. Carbon taxes applied at the point of production or export would ensure that coal and LNG projects internalise the environmental costs they generate. Similarly, methane levies on LNG operations, penalties for gas flaring, and stricter licensing fees for land, water, and biodiversity impacts would force extractive industries to bear costs they currently externalise. In parallel, higher excise duties on polluting imported fuels, combined with a roadmap for their gradual substitution, would align the import regime with Mozambique's climate and energy transition goals.

Table 3: Summary of Fiscal and Non-Fiscal Instruments for Phase-Out

Dimension	Description	Mechanism / Options	Intended Effect
Approach 1: Penalising Fossil Fuels	Use taxation to make fossil fuel extraction less attractive	- Raise corporate income tax for fossil fuel companies. - Introduce windfall taxes on extraordinary profits. - Eliminate or reduce tax incentives (customs/VAT exemptions, accelerated depreciation, fiscal stability clauses). - Apply environmental tax instruments: carbon tax, methane levy, flaring penalties, higher licensing and environmental fees.	Increase operational costs for coal and gas projects, internalise environmental and social externalities, and discourage long-term fossil fuel dependence.
Approach 2: Incentivising Renewables	Redirect fiscal incentives and revenues to clean energy	- Provide tax breaks and subsidies for solar, wind, hydro, and biomass. - Apply VAT exemptions on renewable energy equipment. - Create green investment funds financed by fossil fuel taxes. - Mobilise climate finance and align donor support for renewable projects.	Attract private and foreign investment in renewables, expand access to sustainable energy, and accelerate the just transition.
Cross-Cutting Measures	Combine fossil fuel penalties with renewable incentives to ensure coherence	- Phase out fossil fuel subsidies and redirect funds to renewables. - Establish a Green Fund from windfall and environmental tax revenues earmarked for transition. - Condition any remaining fossil fuel incentives on measurable decarbonisation and social-benefit milestones.	Ensure fiscal coherence, maximise social and economic benefits, and align Mozambique's energy policy with Paris Agreement commitments.

Mozambique faces two intertwined fiscal challenges in advancing a fossil fuel phase-out: the persistence of generous tax incentives that erode revenue from coal, and gas, and a structural budget deficit that limits the State's capacity to fund social and energy transition investments. Addressing these constraints requires a dual strategy.

First, reform the fiscal framework to reduce revenue losses through measures such as higher royalties, removing tax exemptions, implementing differentiated land and emissions taxes, and imposing windfall levies. The second is to strengthen revenue mobilization to fund renewable energy, rural electrification, and social protection. By earmarking fossil fuel revenues for a Green Fund and introducing progressive carbon and reconversion incentives, taxation becomes not only a disincentive to dependence on fossil fuels but also a structural tool for promoting equity, fiscal resilience, and a just transition toward sustainable development.

Box 3: Fiscal Measures According to Key Assumptions

- **Assumption 1: Correct Mozambique's fiscal framework to reduce losses from tax incentives and align with international standards**

Measures linked to tightening fiscal discipline on fossil fuels

Nº	Fiscal Measure	Objective	Time Horizon	Revenue Potential / Impact
1	**Higher coal royalties**	Reduce the attractiveness of coal and favour transition minerals	2025–2030	**Moderate** – depends on production levels
2	**Removal of fossil fuel tax benefits**	Eliminate tax holidays, accelerated depreciation, and customs/VAT exemptions	Immediate (2025)	**Medium** – prevents revenue leakage
3	**Differentiated land taxation**	Penalise fossil fuel concessions and favour solar/wind projects	2025–2035	**Moderate** – increases pressure on land use choices
4	**Export taxes on coal**	Discourage thermal coal exports	2026–2032	**High** – captures rent during price booms
5	**Local emissions tax**	Internalise environmental costs of fossil-fuel power plants	2025–2030	**Moderate** – depends on emission levels
6	**Automatic phased tax increases**	Provide predictability and gradually reduce fossil fuel competitiveness	2025–2040	**High** – cumulative over time
7	**Windfall profits tax**	Capture excess rents during commodity booms (e.g. LNG, coal)	Variable	**High** – cyclical but significant revenues

- **Assumption 2: Increase Mozambique's revenue mobilisation to finance social projects and the energy transition**

Measures linked to channelling revenues into renewables and social protection

Nº	Fiscal Measure	Objective	Time Horizon	Revenue Potential / Impact
1	**Progressive carbon tax**	Gradually increase the cost of coal, oil and gas; send a strong market signal	2025–2035	**High** – revenues rise with fossil fuel consumption
2	**Green Fund with fossil revenues**	Finance renewables, energy efficiency, and rural electrification	Permanent	**High** – earmarks fossil revenues for the transition
3	**Tax incentives for reconversion**	Support firms and workers transitioning into green sectors	2025–2035	**Indirect** – reduces social costs and supports alternatives

To illustrate these proposals, the analysis will focus on Mozambique's own case studies. The first is TotalEnergies' LNG project in Cabo Delgado (Rovuma Basin), one of the largest energy investments in Africa. The second case is Vulcan's coal operations in Tete (Moatize), where large-scale extraction for export markets continues to generate environmental and social externalities but delivers limited fiscal returns due to exemptions and low royalty rates.

7.1. The Case of Natural gas

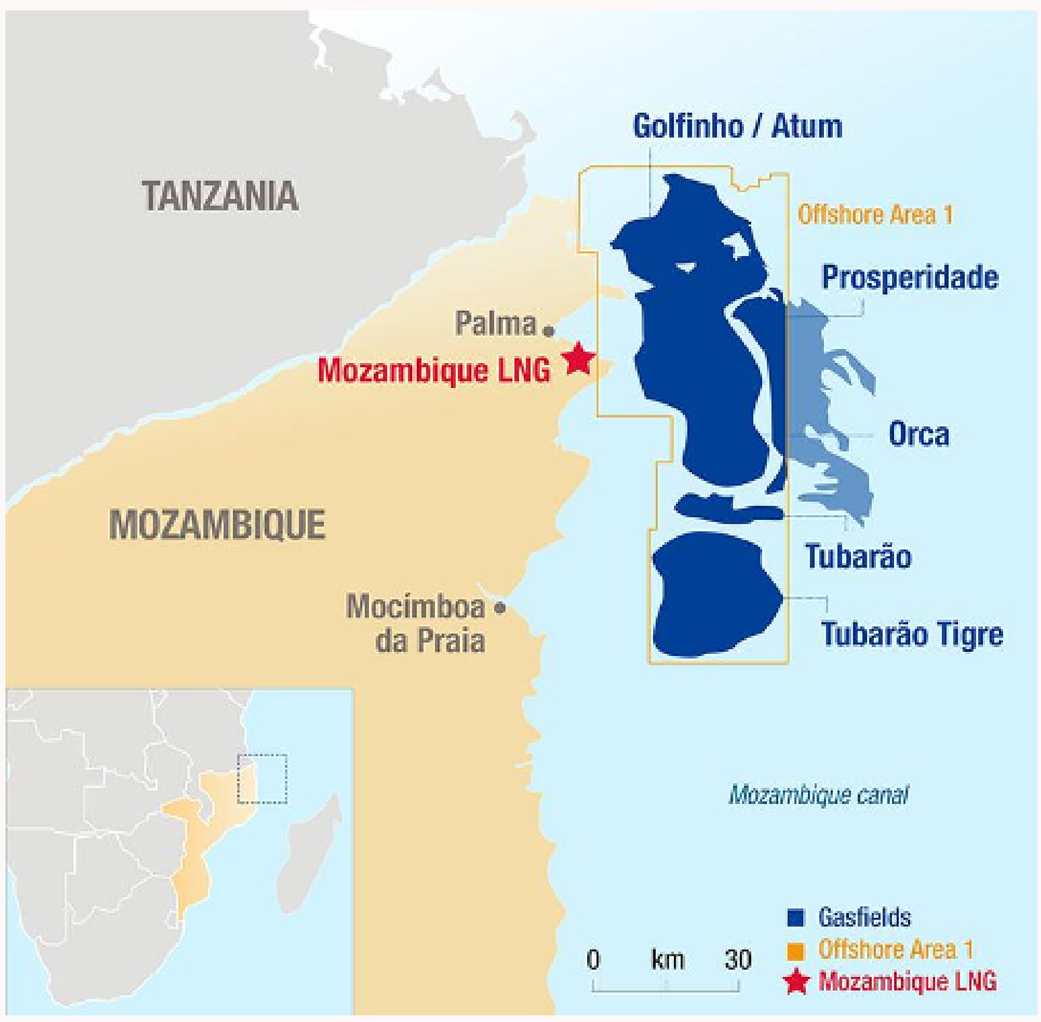
Box 2: TotalEnergies in Mozambique

1. Activities in Mozambique

TotalEnergies is the lead operator of the Rovuma Basin LNG project (Area 1), located in Cabo Delgado. This project, one of the largest energy investments in Africa, focuses on the development of offshore gas reserves estimated at over 65 trillion cubic feet of natural gas. The company's activities include the extraction of gas from deep offshore fields and the construction of an onshore LNG liquefaction plant in Afungi.

Beyond exploration and production, TotalEnergies is also involved in infrastructure development such as roads, airstrips, and the relocation of communities near the project site. The Afungi site has become a symbol of Mozambique's ambition to become a global LNG exporter.

2. Areas of Gas Exploration



Source: TotalEnergies (2020)

Offshore Rovuma Basin (Area 1): TotalEnergies is the operator with partners including Mitsui, ONGC, Bharat Petroleum, PTTEP, and ENH (Empresa Nacional de Hidrocarbonetos).

Products: Liquefied Natural Gas (LNG), condensates, and related by-products.

Planned Output: 12.9 million tonnes per year of LNG in the initial phase, destined largely for Asian and European markets.

3. Associated Externalities

While the project promises to generate revenues and jobs, it comes with major economic, environmental, and social externalities:

Environmental:

- Methane emissions from LNG operations, a greenhouse gas far more harmful than CO_2.
- Risks of gas flaring and impacts on marine ecosystems from offshore extraction.

Social:

- Large-scale resettlement of local communities in Afungi, with reports of loss of livelihoods for farmers and fishers.
- Intensification of conflict and insecurity in Cabo Delgado, with insurgent groups targeting project zones.

Economic:

- Heavy fiscal incentives and tax exemptions reduce the State's capacity to capture revenues.
- Strong dependency on volatile international LNG markets.

4. Tax Contributions in Mozambique vs Other Countries

According to the 2023 Payments in Cash & in Kind Report:

Mozambique:

TotalEnergies paid only 4,930 thousand USD (~5 million), distributed between license fees (2,120) and infrastructure improvements (2,810). Notably, there were no income taxes, royalties, or production entitlements recorded.

Comparison with Other African Countries:

- Angola: 2,342,124 thousand USD (≈ 2.3 billion), mainly through income taxes, royalties, and production entitlements.
- Nigeria: 1,552,456 thousand USD (≈ 1.5 billion), with significant contributions via corporate income tax, license bonuses, and production entitlements.
- Republic of the Congo: 412,867 thousand USD.
- Gabon: 128,024 thousand USD.
- Africa Total: 4,446,233 thousand USD, with Mozambique's contribution representing barely 0.1% of the continental total.

Europe Total: 7,884,805 thousand USD, more than 1,500 times Mozambique's receipts, with countries like Norway (≈ 4.9 billion) and the UK (≈ 2.3 billion).

Mozambique's fiscal regime applied to hydrocarbons continues to face a structural imbalance between the scale of extractive investments and the limited fiscal returns generated from them. Although megaprojects such as Mozambique LNG (Area 1) represent some of the largest capital inflows in the country's history – over USD 26 billion in total investment – government revenues remain modest due to extensive tax exemptions and preferential fiscal treatment. These fiscal expenditures, while justified initially as incentives for high-risk investments, have substantially constrained public revenue mobilisation and increased the country's reliance on public debt to finance social and infrastructure spending.

The data presented in the table below illustrate the magnitude of these foregone revenues. For instance, the government forfeited potential receipts exceeding USD 700 million in VAT and customs duties on drilling activities, and approximately USD 560 million from similar exemptions applied to subsea infrastructure. Furthermore, capitalised interest and commissions during the construction phase – valued at USD 3.6 billion – were only partially taxed, leading to an estimated loss of USD 360 million. The floating production unit (FLNG), which functions as a long-term revenue-generating asset, also benefited from full customs and VAT exemptions, despite its durable and profitable nature. These examples highlight the fiscal cost of an excessively permissive incentive regime.

To improve fiscal sustainability, Mozambique should move towards a phased and conditional approach to tax incentives, ensuring that exemptions are time-bound and linked to measurable local benefits. The government could consider treating capitalised interest as taxable financial income during the construction phase and reclassifying floating production units as depreciable assets subject to standard tax treatment once operational. Similarly, VAT exemptions could be limited to critical capital imports, with cost recovery verified ex post through audited project accounts. Introducing a modest minimum corporate tax rate and revising accelerated depreciation rules would help secure a more stable revenue flow without deterring investment.

Table 4: Estimated foregone revenues

Category	Capital Costs (USD bn)	Tax Type	Standard Rate (%)	Petroleum Regime Effective Rate (%)	Estimated Foregone Tax (USD milion)
Exploration Capital – Drilling ***	28	VAT and Customs Duties	16	0	448
		Customs	20	0	560
		Corporate Income Tax (IRPC)	32	25	196
Development Capital – Drilling ***	3	VAT and Customs Duties	16	0	480
		Customs	20	0	600
		Corporate Income Tax (IRPC)	32	25	210
Pre-Development (FEED, studies, etc.) ***	12	VAT	16	0	192
		Withholding Tax on services	20	0	240
Floating Production Unit (future compression)	8	Customs Duties	20	0	160
		IRPC	32	25	56
Capitalised Interest & Commissions (Trains 1 & 2)	36	Withholding Tax on interest	20	10	360
Subsea Engineering and Design	4	VAT	16	0	64
		Withholding Tax on services	20	0	80
		Customs Duties	20	0	80
Gas Pipeline	8	VAT	16	0	128
Subsea Infrastructure / Wells	28	VAT and Customs Duties	16	0	448
		Customs	20	0	560
		IRPC	32	25	196
LNG Facilities (plants, tanks, utilities)	10	VAT and Customs Duties	16	0	1600
		Customs	20	0	2000
		IRPC	32	25	700
Abandonment Capital	8	VAT and Customs Duties	16	0	128
		Customs	20	0	160
		IRPC	32	25	56
Total	262				

To improve fiscal sustainability, Mozambique should move towards a phased and conditional approach to tax incentives, ensuring that exemptions are time-bound and linked to measurable local benefits. The government could consider treating capitalised interest as taxable financial income during the construction phase and reclassifying floating production units as depreciable assets subject to standard tax treatment once operational. Similarly, VAT exemptions could be limited to critical capital imports, with cost recovery verified ex post through audited project accounts. Introducing a modest minimum corporate tax rate and revising accelerated depreciation rules would help secure a more stable revenue flow without deterring investment.

In Table 5, the proposed alternative framework, as outlined in the final column, proposes a series of reforms designed to broaden the tax base and increase fiscal returns during the fossil fuel phase-out period. Firstly, it advocates a progressive production tax system, where rates increase with profitability or production volume (e.g. 8–12% for oil, 6–8% for gas). It also reintroduces production bonuses linked to output milestones, with payments between USD 500,000 and 2 million as production scales. The stabilisation clause would be shortened to a 5–7-year “green transition” period, allowing the government to revise fiscal terms as global markets evolve and carbon pricing expands.

Another critical reform concerns cost recovery and depreciation rules. The proposed model reduces the cost-recovery ceiling from 80% to 50%, limiting excessive deductions that currently delay government revenue inflows. Depreciation of development and exploration costs would shift from full acceleration in the first year to 75% deductibility spread over five years, aligning fiscal benefits with project lifespans. Likewise, operational expenses would be capped at 90% of declared costs, and deferred depreciation would no longer be allowed except under accrual principles.

On profit-sharing and corporate taxation, the model maintains the R-factor mechanism but raises the State’s share at higher profitability bands (up to 50%). The corporate income tax (IRPC) would move from a fixed 32–35% rate to a progressive structure (30% + 2–4% surcharge), capturing excess profits during price booms. In addition, VAT and customs exemptions would be replaced by targeted and time-bound incentives, with only 50% exemptions on approved import lists.

Table 5: Proposed Alternative Framework (Phase-Out Model)***

Fiscal Regime	Generic EPCC**	Terms of the Law**	Pande-Temane**	Mozambique LNG (Area 1) ***	Proposed Alternative Framework (Phase-Out Model) ***
Petroleum IPP	10%	8%	8%	2%–6% (royalty based on price bands)	8–12% (progressive by Brent price or R-factor)
Natural Gas IPP	5%	6%	6%	2% (Area 1 EPCC)	6–8% (progressive with LNG netback value)
Production Bonuses					
Start of commercial production	200,000	200,000	200,000	Exempt	USD 500,000–1,000,000 (tiered by project size)
25,000 bpd threshold	200,000	200,000	200,000	Exempt	USD 1,000,000
25 million barrels cumulative	200,000	200,000	200,000	Exempt	USD 2,000,000
Stabilisation clause	Yes	Yes	Yes	Yes (30 years)	Limited "green stability" (5–7 years, renewable taxes excluded)
Petroleum recovery cost limit	65–75%	65–75%	65–75%	80% (EPCC Area 1)	50% ceiling with ring-fencing per project
Cost Recovery / Depreciation					
Depreciation of exploration/development costs	100%	100%	100%	100% accelerated (Year 1)	75% deductible, spread over 5 years
Operational expenses	100%	100%	100%	100%	90% (10% non-deductible cap)
Deferred depreciation option	Yes	No	Yes	Yes	No (apply accrual principle only)
Production Sharing (Profit Oil/Gas)					
1st band (R-Factor < 1)	10–15%	10–15%	10–15%	10%	15%
2nd band (R-Factor < 2)	20–25%	20–25%	20–25%	20%	25%
3rd band (R-Factor < 3)	30–35%	30–35%	30–35%	35%	40%
4th band (R-Factor < 4)	40–45%	40–45%	40–45%	45%	50%
5th band (R-Factor < 5)	50–70%	50–70%	35%	50% (ENH share)	60–65% (windfall threshold)

State participation	10%	10%	10%	10% carried by contractor	15% with option for additional paid equity
Corporate Income Tax (IRPC)	32%	35%	35%	25%	30% + 2–4% minimum tax on net revenue
Loss carry-forward period	6 years	8 years	8 years	Unlimited under EPCC	5 years
VAT					
Imports	Exempt	Exempt	Exempt	Exempt	50% exemption ceiling (list of essential imports)
Exports	Exempt	Exempt	Exempt	Exempt	Exempt
Customs Duties					
Imports for operations	Exempt	Exempt	Exempt	Exempt	Selective exemption (equipment only)
Petroleum exports	Exempt	Exempt	Exempt	Exempt	2% export levy (to Green Transition Fund)
Withholding Tax					
Foreign subcontractors	Exempt	Exempt	Exempt	0% under EPCC	10% (recoverable under DTA)
Dividends	10%	10%	15%	0% for ENH / 10% for others	15%
Interest	20%	20%	20%	10% (treaty-reduced)	15% (thin cap: 30% EBITDA)
Carbon / Environmental Levy	–	–	–	None	US$ 5–10/tCO_2e (starting 2026, ramped annually)
	Source : Standard Bank (2014) * Author's elaborations				

The proposed fiscal reforms can be swiftly applied to new extractive projects. For existing projects, however, implementation is more complex because most are governed by stabilization clauses that protect investors from changes in the fiscal regime. These clauses limit the government's ability to introduce new taxes without negotiation. In this context, reform must proceed through cautious engagement with multinational companies to avoid legal disputes. The issue of contract renegotiation has recently gained political prominence, with growing public and political commitments to revisit the terms of major extractive projects – although with no concrete steps taken so far.

7.1. The Case of Coal Mining

Box 3: Case Study: Vulcan Resources in Mozambique

1. Activities in Mozambique

Vulcan Resources, a subsidiary of the Indian Jindal Group, took over Vale's coal operations in Moatize, Tete province, in 2022. The company operates one of the largest coal mining concessions in Mozambique, focusing on both metallurgical coal (for steelmaking) and thermal coal (for energy generation). Most of Vulcan's production is exported to India, China and other Asian markets, making Mozambique one of Africa's key coal exporters. The project also includes transport infrastructure, with coal transported via the Nacala and Beira corridors to international markets.

2. Areas of Operation

Vulcan's main activities are concentrated in the Moatize district, an area rich in coal deposits.

3. Associated Externalities

The coal industry in Moatize has been heavily criticised for its environmental and social impacts. Communities have been resettled multiple times with limited compensation, leading to loss of livelihoods for farmers and miners. The mining operations have caused land degradation, water pollution, dust emissions and deforestation, intensifying health risks for local populations.

Note: The fiscal incentives where initially granted to Vale. The included exemptions from customs duties, VAT, and excise taxes on imported equipment and machinery removed a crucial source of short-term fiscal inflows during the investment phase, while the 25% reduction in corporate income tax for the first five profitable years and the 50% cut in SISA further weakened direct revenue collection. In addition, the provision allowing losses to be carried forward and deducted for up to 15 years effectively delayed the point at which corporate taxation could generate meaningful contributions to the Treasury. Although royalties were maintained at 3%, this rate is low by international standards and insufficient to offset the extensive tax benefits granted.

Mozambique's current fiscal framework for coal mining, is also marked by generous tax exemptions, has substantially limited the state's ability to mobilise revenues from one of its most significant extractive sectors. Correcting these distortions requires phasing out excessive incentives such as VAT and customs duty exemptions, shortening loss-carry-forward periods, and aligning royalty levels with international standards. By adopting progressive taxation on coal linked to global price fluctuations and revising stability clauses, Mozambique could reduce revenue leakages while ensuring that extractive companies contribute a fairer share to public finances. Such reforms would help strengthen the fiscal base without deterring responsible investment, while also bringing Mozambique closer to global best practices in resource taxation.

At the same time, international dynamics – especially the accelerating shift towards decarbonisation – demand that Mozambique plan proactively for a future where coal will lose competitiveness and external financing. To prepare, the state may channel revenues from coal into a sovereign wealth fund and prioritise investment in renewable energy, rural electrification, and climate adaptation. Introducing carbon taxes, windfall levies, and environmental fees would not only raise additional revenues but also internalise the social and ecological costs of coal exploitation.

Box 5: Fiscal Measures in Coal Mining (Moatize and other concessions)

🔹 **Assumption 1: Correct Mozambique's fiscal framework to reduce losses from tax incentives and align with international standards**

- Review and phase out excessive tax incentives (e.g. exemptions from VAT, customs duties, ICE on equipment imports).
- Raise royalty rates on coal from the current 3% to a progressive system linked to international coal prices (e.g. 5–10%).
- Limit loss-carry-forward provisions to a shorter period (e.g. 5–7 years instead of 15).
- Introduce stricter conditions for fiscal stability clauses, with sunset provisions ensuring periodic renegotiation.
- Apply differentiated land-use taxes that impose higher charges on coal concessions compared with renewable energy projects.

Box 5: Fiscal Measures in Coal Mining (Moatize and other concessions)

🔹 Assumption 2: Increase Mozambique's revenue mobilisation to finance social projects and the energy transition

- Introduce a carbon tax or levy on coal exports, internalising environmental costs and capturing rents during periods of high demand.
- Implement a windfall profits tax to secure extraordinary revenues during commodity booms.
- Earmark part of coal revenues for a Sovereign Wealth Fund dedicated to financing renewable energy, rural electrification, and climate adaptation.
- Channel royalties and corporate tax receipts into social protection and infrastructure, particularly in coal-producing provinces such as Tete.
- Provide tax incentives for companies that reinvest in green energy, rehabilitation of mining areas, and community development programmes.

8. Fiscal regime for renewables

The fiscal regime for renewables in Mozambique is embedded in a broader set of legal and policy instruments governing the energy sector. The Electricity Law (2022) and the Energy Master Plan (2014–2024) establish the principles of diversification and the gradual integration of renewable energy into the national energy matrix. The Renewable Energy Policy and Strategy (2014) provides specific guidance for the expansion of solar, wind, hydro, and biomass projects, while the National Strategy for Sustainable Electrification (2020) sets the goal of universal energy access by 2030, privileging decentralised and sustainable solutions. Institutional responsibility lies primarily with the Ministry of Mineral Resources and Energy (MIREME), supported by the Energy Regulatory Authority (ARENE), which regulates tariffs and licensing, and the Fundo de Energia (FUNAE), which implements off-grid renewable energy projects.

Table 6 summarises the strategic objectives of Mozambique's National Renewable Energy Plan (PNER) in the short and medium term, focusing on expanding access to modern and sustainable energy services while promoting technological development and private sector participation. The plan emphasises three main pillars: (i) improving household access to electricity and clean energy for domestic use; (ii) developing and mapping renewable energy technologies, including solar, wind, hydro, geothermal, co-generation, and ocean energy; and (iii) strengthening the regulatory and financial frameworks to attract investment in renewable energy. Activities to implement this plan, include promoting factories for solar and wind equipment, developing small and mini-hydropower schemes, connecting bioenergy projects to the national grid, and introducing credit and fiscal incentive schemes to accelerate investment and private sector engagement in the renewable energy transition.

Table 6: Strategic Objectives of the National Renewable Energy Plan (PNER) in the Short and Medium Term

Objectives	Programme Areas	Indicators
Improve access of domestic consumers to modern and renewable energy services.	**Domestic Consumption**	- Level of access to electricity for domestic lighting from grid-connected or off-grid sources. - Degree of reduction in the use of wood biomass for cooking. - Level of access to domestic, individual or community refrigeration equipment. - Level of access to radio or television for individual or community use.
Develop and map technology for the use and conversion of renewable energy sources.	**Solar Energy**	- Factory for production and assembly of solar water heaters. - Factory for assembly of low-cost photovoltaic panels.
	Wind Energy	- Factory for production and assembly of wind pumps. - Wind map for small- and medium-scale power generation.
	Hydropower	- Hydrological resource map for micro and mini hydropower scales.
	Co-generation Energy	- Connection to the national grid (RNT) of two electricity generation units using sugarcane residue.
	Geothermal Energy	- Map of geothermal resources.
	Ocean Energy	- Map of ocean energy resources.
Promote and accelerate investment and private sector participation in renewable energy sources.	**Regulation**	- Opinion studies evaluating the quality and attractiveness of the legal framework for public and private investments, concession licensing procedures, tax incentive regimes, and the adequacy of technical standards.
	Financing	- Credit schemes for mini-, micro-, and small-scale systems for production, commercialisation, or exploration of renewable energy sources or conversion technologies.

Table 7 summarises the main fiscal incentives and eligibility conditions applicable to renewable energy and infrastructure investments in Mozambique, as established under the Fiscal Benefits Code (Law No. 4/2009). These incentives include full exemptions from customs duties and value-added tax on the import of equipment classified under Class K, which covers materials and technologies used in energy generation, transmission, and distribution. Investors in priority sectors such as energy, water, and infrastructure may also benefit from corporate income tax reductions of up to 80% during the first five fiscal years, gradually declining over a 15-year period, as well as accelerated depreciation for capital assets.

Additional incentives are available for projects located in rural areas or within manufacturing and assembly industries, promoting local production of renewable energy equipment and rural electrification initiatives. To qualify, companies must be formally registered as industrial or energy enterprises, maintain an annual turnover of at least MZN 3 million, and demonstrate a minimum value-added rate of 20%. Together, these fiscal measures aim to lower upfront investment costs, enhance project profitability, and stimulate private sector participation in Mozambique's renewable energy transition (Assembleia da República 2009).

Table 7: Fiscal Incentives Applicable to Class K Goods and to the Manufacturing and Assembly Industry (Focus: Energy Sector)

Legal Article / Provision	Type of Fiscal Incentive	Description of Incentive	Goods / Activities Covered (Class K & Manufacturing Industry)	Relevance to the Energy Sector
Article 21 – Exemption from Customs Duties and VAT (Class K)	Exemption from customs duties and VAT	Full exemption on the import of equipment classified under Class K of the Customs Tariff.	Electrical and energy equipment: generators, turbines, transformers, solar panels, cables, meters, and control systems.	Reduces import costs and supports the deployment of renewable energy projects and grid expansion.
Article 22 – Corporate Income Tax (IRPC)	Corporate income tax reduction	80% reduction in IRPC during the first five fiscal years; 60% from the 6th to the 10th year; 50% from the 11th to the 15th year.	Energy and basic infrastructure companies (generation, transmission, and distribution).	Enhances the profitability and financial sustainability of large-scale energy investments.

Article 23 – Rural Area Incentives	Exemption from customs duties and VAT	Applies to energy equipment destined for rural electrification projects.	Refrigeration units, water pumps, generators, solar panels, wind turbines, meters, and power controllers.	Promotes rural electrification and the use of decentralised renewable technologies.
Article 25 – Eligible Investments (Manufacturing and Assembly Industry)	Specific framework for manufacturing industry	Applies to industrial and assembly projects in productive sectors, including the manufacture of energy-related equipment.	Factories for assembling electrical equipment, solar panels, batteries, and wind turbines.	Stimulates industrialisation and local production of renewable energy equipment.
Article 26 – Exemption from Customs Duties (Manufacturing and Assembly Industry)	Exemption on the import of raw materials	Full exemption from customs duties on the import of raw materials and components used in industrial production.	Raw materials and parts for assembling electrical, electronic, and renewable energy equipment.	Encourages local manufacturing and assembly of clean energy technologies.
Eligibility Conditions (Article 26, Nos. 3 & 4)	Eligibility requirements	Entities must be registered as industrial enterprises, with annual turnover ≥ MZN 3,000,000 and value added ≥ 20%.	Energy-sector companies transforming or assembling products locally.	Supports companies with national production and local value-chain linkages in the energy industry.

Assembleia da República (2009)

Although Mozambique has the National Renewable Energy Implementation Strategy and has set a target of achieving 62% renewable energy use by 2030, access to renewable energy remains limited and uneven across the country. Compared with global trends presented in the Renewables 2024 Global Status Report, Mozambique ranks among the countries with a low share of renewables in total final energy consumption (TFEC) – below 20% – awith a strong dependence on traditional biomass and limited deployment of modern renewable sources such as solar, wind, and small-scale hydropower. While countries such as Iceland, Norway, and Brazil already exceed 50% renewable energy penetration – driven by hydropower, geothermal, and biofuels – Mozambique continues to face structural challenges in expanding its electricity grid, mobilising green finance, and developing local manufacturing for renewable technologies.

Figure 5: Renewable Share of Total Final Energy Consumption, by Country, 2021

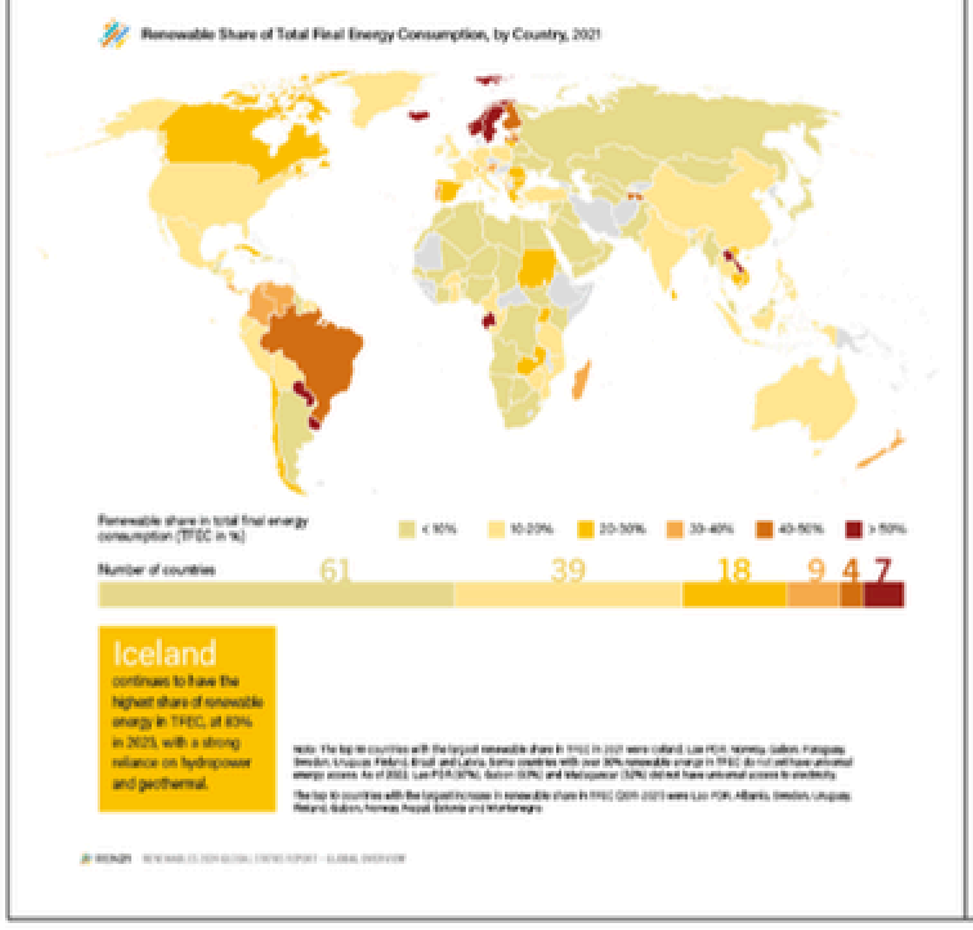
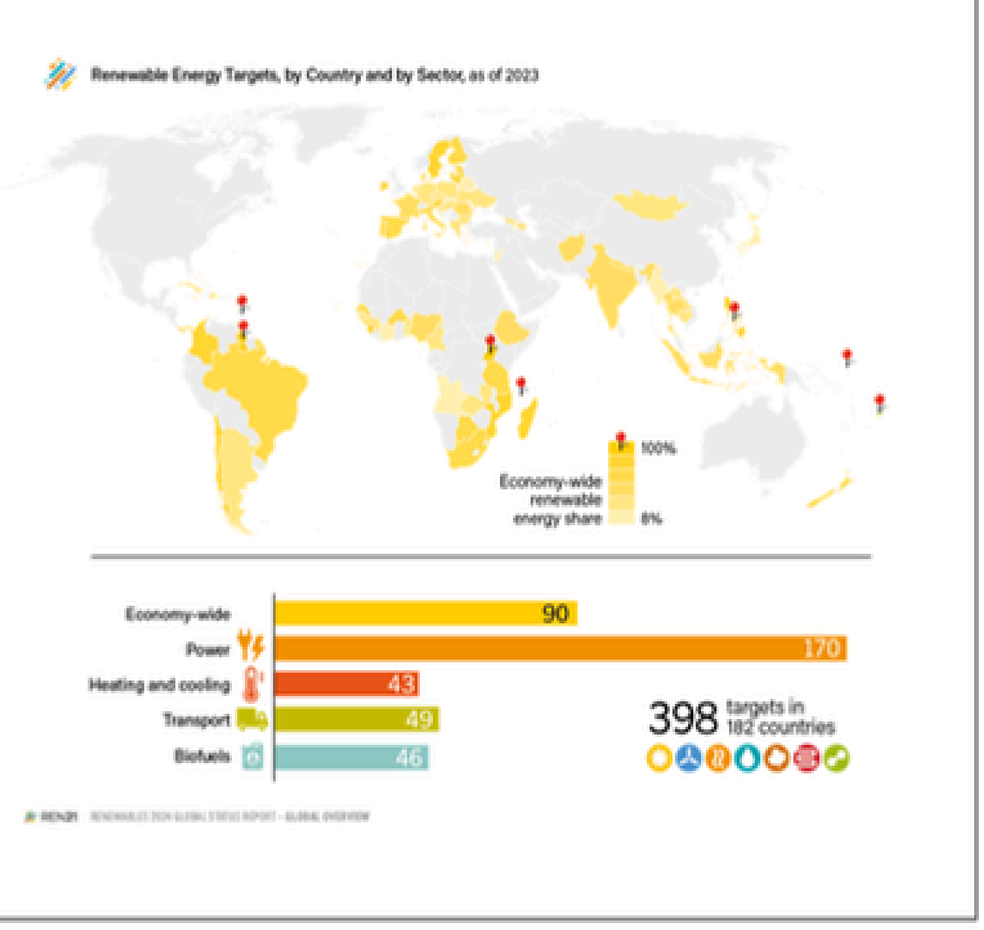


Figure 6: Renewable Energy Targets by Country and by Sector, as of 2023



On the other hand, the low purchasing power of citizens reduces the commercial viability of renewable energy solutions, particularly in rural areas. Over 65% of Mozambique's population lives below the poverty line and poverty rates rose from 48.4% to 62.8% between 2014/15 and 2019/20 (World Bank 2023a). This economic fragility constrains household capacity to afford electricity tariffs or invest in off-grid technologies such as solar home systems, even when available.

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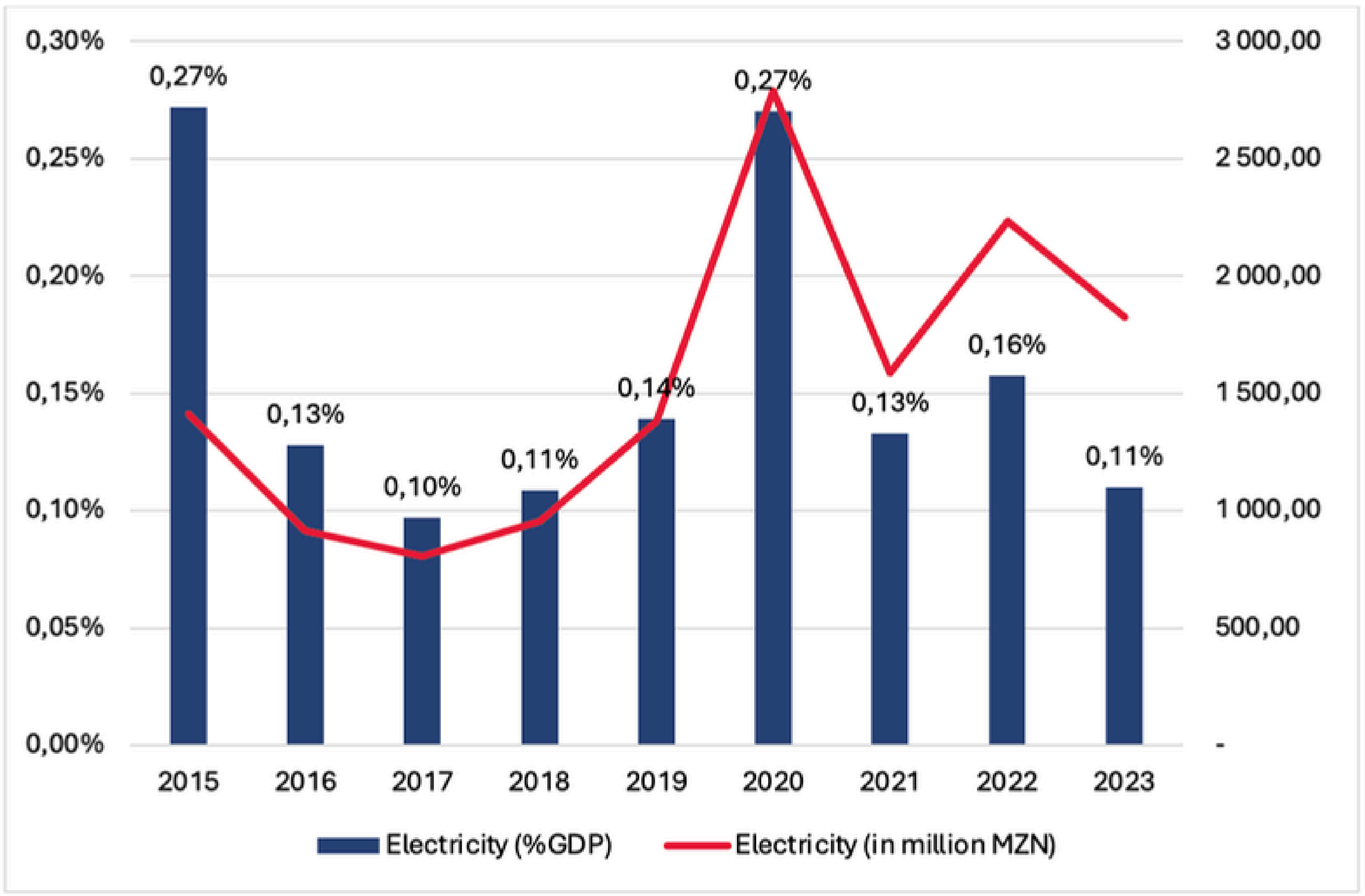
Figure 7: Public investment in electricity in Mozambique between 2015 and 2023 (nominal values)



8.1. A Fiscal Blueprint for Renewables and Green Minerals

Tables 16-18 present a proposal for a balanced fiscal regime to promote the energy transition in Mozambique, considering the need to avoid excessively generous regimes such as those previously granted to coal and natural gas megaprojects. The core assumptions underpinning these proposals are: (i) incentives should be temporary, conditional, and fiscally sustainable; (ii) the measures should simultaneously strengthen social inclusion, the State's investment capacity, and the attractiveness of the private sector; and (iii) there should be transparency and limits on fiscal expenditure, ensuring that public resources effectively contribute to economic diversification and the reduction of fossil fuel dependence.

The measures in Table 8 focus on promoting access for households and small enterprises to renewable energy sources by lowering acquisition costs and stimulating sustainable consumption. They propose reductions or exemptions of VAT and customs duties on small-scale equipment, as well as tax deductions for families installing solar systems or accessing clean cooking technologies. In the Mozambican context, where the rural electrification rate remains low and household purchasing power is limited, these measures aim to reconcile social justice with the energy transition, ensuring that access to clean energy is not an urban privilege but a basic right.

Table 8: Fiscal Incentives to Support Household Access and Use of Renewable Energy

Policy Area	Instrument / Measure	Description and Rationale	Safeguards and Conditions	Expected Impact
1. VAT and Import Duties	Reduced VAT (e.g.: 5-10%) and exemption from import duties on small-scale solar, biogas and clean-cooking systems	Reduces upfront costs for low-income households and SMEs adopting renewables.	Exemptions limited to certified low-emission technologies listed by MIREME and MEF; no resale permitted.	Expands access to affordable clean energy.
2. Income Tax Rebates for Households	Tax deduction (up to 15%) on purchase of renewable energy systems for domestic use	Encourages middle-income households to invest in home solar, water heating, and clean cooking.	Only applicable for registered suppliers; proof of installation required.	Increases household adoption and formal market growth.

3. Subsidy and Vouchers for the Poor	Targeted consumption vouchers or tax credits financed from fuel levies	Helps vulnerable households access off-grid solutions without distorting market prices.	Implemented through social registry; time-bound (max 3 years).	Promotes social equity and just transition.
4. Productive Use Incentives	VAT rebate on renewable-powered agricultural and refrigeration equipment	Supports productive activities powered by renewable energy.	Capped per household or enterprise; requires proof of use for income-generating activities.	Boosts rural income and employment.
5. Carbon-linked Incentives	Reduced fees for carbon-efficient technologies	Encourages clean energy use in cooking and mobility (e.g. electric motorcycles).	Only for certified products; monitored through standardised labelling.	Reduces emissions and deforestation.

Table 9 sets out a series of fiscal mechanisms designed to enhance the State's capacity to finance renewable energy projects, thereby reducing dependence on donors and external loans. These include the introduction of a carbon levy or fuel surcharge, whose revenues would be channelled into a Green Fund; tax deductibility for public investments in green infrastructure; and the fiscal regulation of carbon credit revenues, ensuring that a significant portion is reinvested in the sector. This approach recognises that the Mozambican State faces severe budgetary constraints, with public investment in electricity rarely exceeding 0.2% of GDP, as recent data show. By establishing predictable and sustainable domestic funding sources, these measures would enable the government to lead the energy transition process, rather than depend exclusively on international partners.

Table 9: Fiscal Instruments to Strengthen Government Capacity to Invest in Renewables

Policy Area	Instrument / Measure	Description and Rationale	Safeguards and Conditions	Expected Impact
1. Green Fiscal Reform	Introduce earmarked carbon levy or fossil-fuel excise surcharge	Generates predictable domestic revenue for renewable investments.	Cap levy at ≤1% of fuel price; publish annual revenue use report.	Diversifies funding base for renewables.
2. Green Fund	Create a Green Fund	Earmark at least 10–15% of LNG/coal revenues for renewables and electrification.	Governed by independent board; subject to public audit.	Ensures long-term funding for transition projects.
3. Public Investment Tax Rules	Deductibility of renewable capital investments in public infrastructure	Allows the government to classify renewable infrastructure as deductible for fiscal purposes.	Limited to strategic national projects.	Increases fiscal flexibility for green investments.
4. Carbon Credit Fiscalisation	Tax carbon-credit revenue and recycle proceeds into renewables	Creates fiscal mechanism to capture and reinvest proceeds from carbon markets.	Legal clarity required on ownership of credits; public registry.	Encourages sustainable forest and land-use projects.
5. Public Procurement Reform	Apply green tax rebates for government procurement of renewables	Reduces the cost of electrifying public facilities (schools, hospitals).	Green certification mandatory; capped by budget ceiling.	Stimulates domestic demand and local green industry.
Note: The rates presented in this table are indicative only. Their determination requires further studies to ensure an appropriate balance between incentives for renewable energy development and the State's revenue mobilisation objectives.				

The measures in Table 10 aim to attract domestic and foreign private investment, but under strict efficiency and social return criteria. They provide for VAT and customs duty exemptions conditional on local content and job creation, accelerated depreciation for renewable energy infrastructure, and temporary reductions in the Corporate Income Tax (IRPC) linked to verifiable environmental and social targets. For green minerals, differentiated royalty rates are proposed to favour companies that undertake local processing using clean energy, thus promoting value addition and sustainable industrialisation within Mozambique's fiscal framework.

Table 10: Fiscal Regime to Attract Private Investment in Renewable Energy and Green Minerals

Policy Area	Instrument / Measure	Description and Rationale	Safeguards and Conditions	Expected Impact
1. Targeted CAPEX Incentives	Conditional VAT/customs exemption for renewable infrastructure	Reduces upfront costs but limits fiscal losses through project certification.	Time-bound (max 5 years); projects must achieve 60% local content.	Attracts credible investors while avoiding revenue leakage.
2. Accelerated Depreciation	100% depreciation for renewable energy assets; 50% for R&D	Reduces taxable profit in early years to improve project viability.	Only for projects meeting employment and environmental targets.	Stimulates early-stage private investment.
3. Reduced Corporate Income Tax (IRPC)	Temporary 25% rate for compliant renewable projects	Links tax relief to measurable social and environmental outcomes.	Capped at 5 years; performance-based review.	Aligns private incentives with national goals.
4. Green Bonds and Finance	WHT relief for certified green bonds	Lowers cost of capital for renewable and transition projects.	Bonds must meet green taxonomy standards.	Attracts long-term private finance.
5. Royalty Differentiation (Green Minerals)	Lower royalty (−1–2 p.p.) for processed minerals using renewable power	Incentivises downstream value addition with clean energy.	Verified renewable power usage ≥50%; periodic audits.	Promotes clean industrialisation.
6. Export Fee on Unprocessed Ore	Small export fee on unprocessed raw minerals	Discourages raw exports while remaining WTO/AfCFTA-compliant.	Transparent and earmarked for processing infrastructure.	Strengthens domestic and regional value chains.
7. Transparency and Fiscal Cap	Publish annual report on tax incentives	Limits cumulative energy-related tax expenditure to ≤0.5% of GDP.	Joint oversight by MEF, MIREME and Tribunal Administrativo.	Prevents fiscal erosion and enhances accountability.
Note: The rates presented in this table are indicative only. Their determination requires further studies to ensure an appropriate balance between incentives for renewable energy development and the State's revenue mobilisation objectives.				

9. Introduction of a Carbon Tax under the CBAM: An Opportunity for Mozambique's Energy Transition Agenda

The growing concern over climate change and the urgent need to transition toward low-carbon economies have driven the adoption of innovative policies across the globe. Among these, the Carbon Border Adjustment Mechanism (CBAM) stands out as one of the European Union's most ambitious climate policy instruments. As a key component of the European Green Deal, the CBAM aims to ensure the reduction of greenhouse gas (GHG) emissions and to prevent carbon leakage–a phenomenon in which companies relocate their production to countries with less stringent environmental regulations, thereby undermining global mitigation efforts (European Commission, 2021).

Through this mechanism, the EU seeks to align the carbon price of imported goods with that of domestically produced goods, promoting fair competition while encouraging cleaner production practices among exporting countries.

The CBAM will be phased in gradually, with full implementation expected by 2026, covering sectors characterized by high carbon intensity. These include cement, steel, aluminium, fertilizers, electricity, and hydrogen, selected for their significant contribution to global emissions and their exposure to unfair competition risks. In particular, the aluminium sector is highly relevant for exporting countries due to its dependence on energy-intensive processes such as electrolysis and smelting (Cosbey et al., 2020).

In this context, the impact of CBAM on Mozambique deserves special attention. Aluminium is one of the country's top export products, accounting for about 17% of total exports and generating approximately USD 2 billion in revenue in 2022 (OEC, 2022).

Mozal, the country's only aluminium smelter, located in Maputo Province, plays a strategic role in Mozambique's economy. Established as a joint venture between international shareholders and the Mozambican government, Mozal is one of the largest aluminium smelters in Africa and has a direct impact on the nation's economic and social development. The company employs around 2,500 people directly and thousands more indirectly in supply chains, logistics, and maintenance. In addition, it contributes substantially to fiscal revenues and foreign exchange earnings, standing as a vital pillar of Mozambique's GDP (IEA, 2021).

Despite these competitive advantages (such as the use of relatively modern, lower-carbon technologies compared to many global smelters) aluminium production remains an energy-intensive process. The International Energy Agency (IEA, 2021) estimates that over 60% of the sector's carbon emissions stem from fossil fuel-based electricity generation. This presents a major challenge for Mozambique, which, although endowed with vast renewable energy potential, still relies partly on non-renewable sources.

Consequently, the introduction of the CBAM may impose additional carbon-related costs on Mozambican aluminium exports, potentially undermining their competitiveness in European markets unless domestic adaptation and regulatory alignment measures are adopted.

On the other hand, the CBAM also creates strategic opportunities for Mozambique. Mozal's relatively low emission intensity positions it favourably in global terms. Since the CBAM's initial phase will apply only to direct (Scope 1) emissions, Mozal could become more competitive than producers with higher carbon footprints. Moreover, the mechanism could serve as an incentive for technological modernization within the sector and for the establishment of a domestic carbon-pricing framework that allows Mozambique to retain the fiscal revenues generated by such regulation.

Several studies suggest that implementing a carbon tax targeted at the aluminium industry could both offset CBAM-related costs and generate additional fiscal resources for investment in clean technologies and sustainable infrastructure (Branger & Quirion, 2014; Cosbey et al., 2020).

More broadly, the CBAM's significance for Mozambique extends beyond the aluminium sector, raising important questions about the country's ability to align its trade and environmental policies with evolving international standards. Given its structural dependence on raw-material exports such as aluminium, Mozambique must adopt a proactive national strategy – one that prioritizes investment in renewable energy, industrial modernization, and economic diversification. At the same time, it is essential to establish a political and technical dialogue with key international partners, including the European Union, the World Bank, and the International Monetary Fund (IMF), to secure financial and technical support for the country's transition toward a low-carbon economy.

industrial modernization, and economic diversification. At the same time, it is essential to establish a political and technical dialogue with key international partners, including the European Union, the World Bank, and the International Monetary Fund (IMF), to secure financial and technical support for the country's transition toward a low-carbon economy.

9.1. Impacts of the CBAM on Mozambique's Aluminium Competitiveness

To analyse the implications of the CBAM for Mozambique's aluminium sector, particularly the operations of Mozal, it was based on the study of Wolfman, et al (2024) where they employed secondary and firm-level data on production, exports, and carbon intensity, sourced from institutions such as UNCTAD, the European Commission, the Observatory of Economic Complexity (OEC), and Mozal itself. These data were complemented with international benchmarks to assess Mozal's relative position in the global aluminium cost and carbon intensity curve.

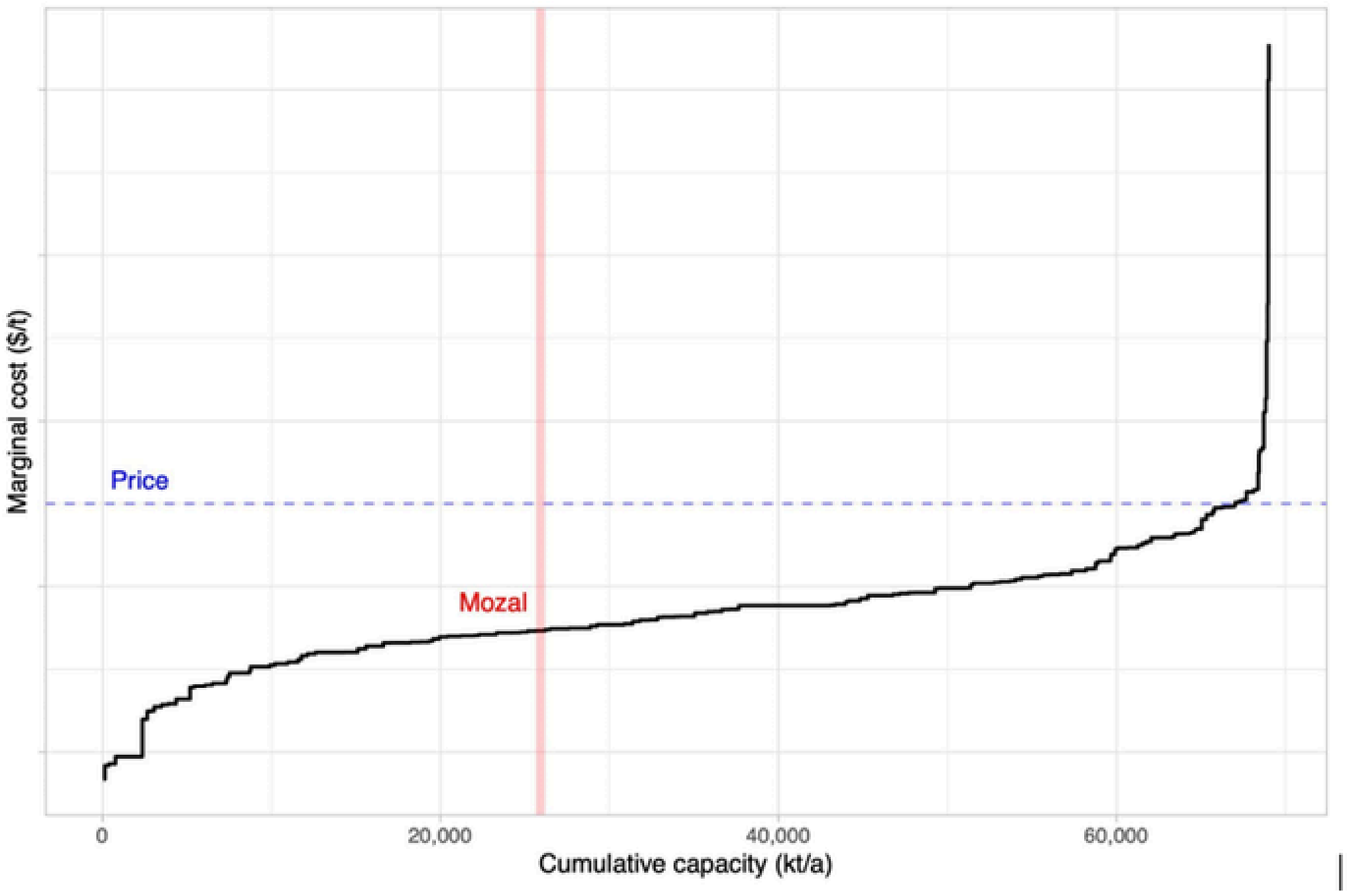
The authors did Economic simulations to model the impact of CBAM on aluminium prices, competitiveness, and profitability. Two scenarios were compared: a baseline scenario (without CBAM), and a CBAM scenario, reflecting the additional costs linked to carbon-adjusted tariffs. Complementary simulations using a Computable General Equilibrium (CGE) framework were performed to estimate the broader macroeconomic and fiscal impacts on Mozambique, including potential effects on exports, employment, and government revenue. The results indicate that the implementation of CBAM will have differentiated effects across aluminium producers, depending on their cost structures and carbon intensity.

Figure 5 illustrates the global aluminium supply curve, showing the marginal production costs against cumulative production capacity (in thousand tons per year). The horizontal axis represents cumulative global capacity, while the vertical axis shows marginal production costs per ton (in USD). The upward-sloping black line reflects the distribution of production costs across global producers – with the most efficient, low-cost producers on the left, and less efficient, high-cost producers on the right.

The blue horizontal line denotes the international market price for aluminium, serving as a reference for competitiveness. Producers whose costs lie below this line operate profitably, while those above it face financial pressures. The relatively flat segment of the curve indicates that a large number of producers maintain competitive costs, whereas the steep end of the curve shows the presence of marginal, high-cost producers vulnerable to market changes.

Mozal's position, marked by a red vertical line, lies below the global price line, indicating that its marginal production costs are lower than those of many competitors. This cost advantage reflects operational efficiency, access to relatively affordable energy, and moderate carbon intensity compared to smelters in more carbon-dependent economies.

Figure 5: Global Aluminium Supply Based on Marginal Production Costs (Wolfman, 2024)



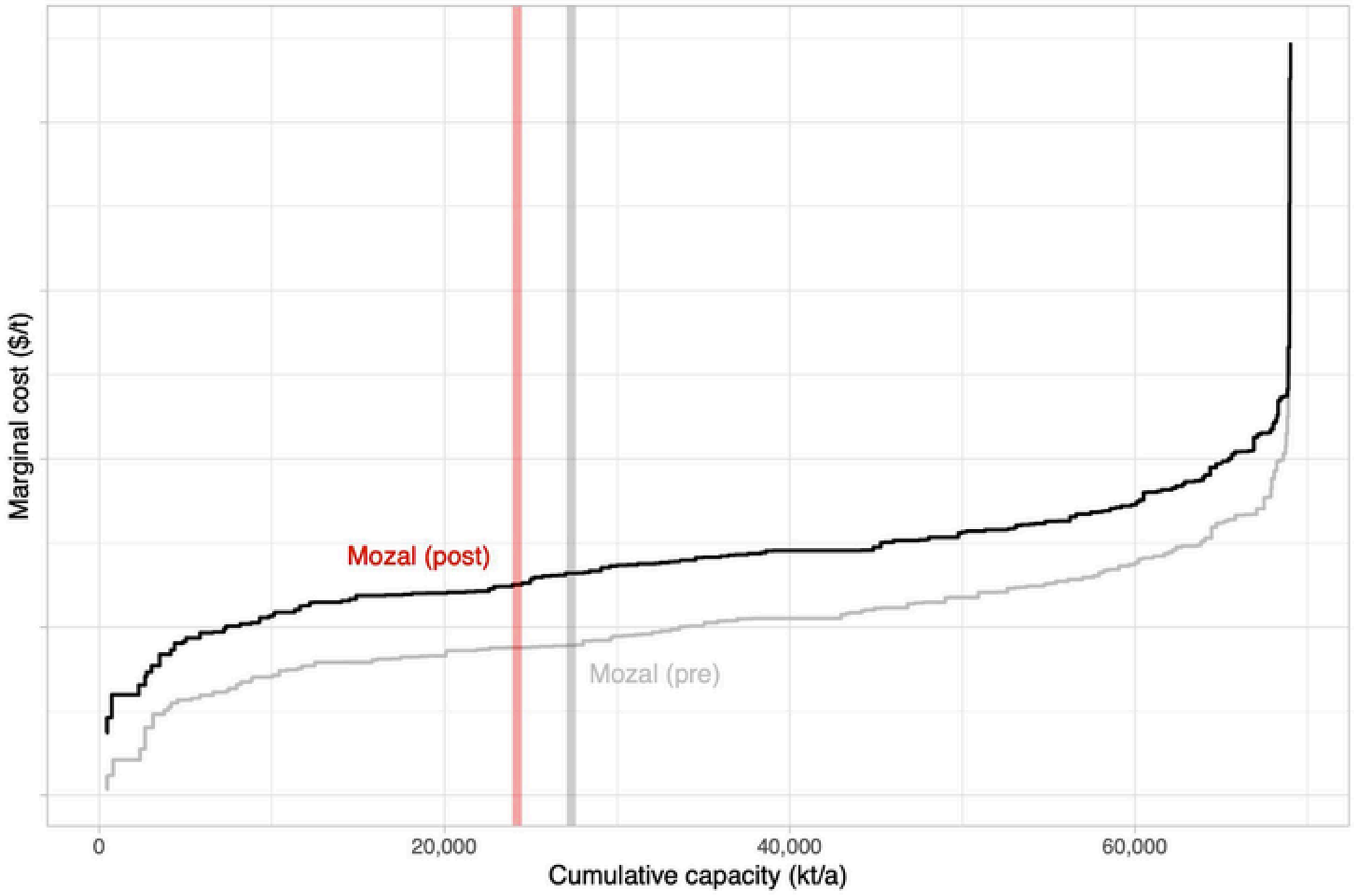
Note: Cash costs include the following elements: delivered alumina cost, raw materials, consumables, labour, repair and maintenance materials, services, and other operational expenses, as well as the total cost of energy. Depreciation values and costs associated with the carbon market are not included.*

As CBAM introduces a carbon-based adjustment on imports to the EU, producers with higher carbon emissions will see their costs increase, effectively shifting their position upward on the cost curve. Mozal, by contrast, stands to maintain its competitiveness due to its lower emissions per ton of aluminium, especially since the initial phase of CBAM (2026–2030) targets direct (Scope 1) emissions only.

Figure 6 presents the supply curve adjusted to reflect the additional carbon-related costs introduced by the CBAM. The grey lines represent the pre-CBAM supply curves (for reference), while the black line incorporates the impact of the EU/UK weighted-average carbon price applied to direct (Scope 1) emissions of smelters. This results in an upward shift of the supply curve, signifying an overall increase in marginal costs due to the carbon tariffs.

Mozal's updated position, indicated as "Mozal (post)", also moves upward–showing that while its operational costs increased as a result of the CBAM, it remains cost-competitive relative to most other global producers, particularly those positioned toward the right end of the curve. This outcome highlights that Mozal's lower carbon intensity limited the impact of CBAM on its total production costs.

Figure 6: EU/UK Supply Curve Before the CBAM (Wolfman, 2024)



Note: The grey lines represent the pre-CBAM supply curves. The EU/UK weighted-average carbon price is applied to Scope 1 emissions for all smelters, excluding on-site power generation.*

The comparison between the two figures clearly demonstrates the distributive effect of the CBAM on the global aluminium market. Before CBAM implementation, Mozal already held a moderately competitive position on the global cost curve. After the introduction of carbon-adjusted tariffs, production costs rose for all producers, but the impact was asymmetric: high-emission producers experienced significantly greater cost increases, while lower-emission producers like Mozal faced more moderate adjustments.

In general, the results show that Mozal, Mozambique's main aluminium producer, improves its relative cost position in the global aluminium market following the implementation of CBAM. Its ranking rises from 49th to 44th place, reflecting the company's lower carbon intensity compared to global competitors.

Because Mozal emits less carbon per ton of aluminium, it faces smaller carbon-related cost increases, while higher-emission producers are penalized with steeper tariffs. This differential effect strengthens Mozal's competitive advantage within a more carbon-constrained global market.

However, the fiscal dimension remains a key challenge. Under current EU rules, CBAM revenues are collected by the European Union, representing a lost fiscal opportunity for Mozambique. This highlights the importance of introducing a domestic carbon pricing policy aligned with the CBAM to retain fiscal revenues and reinvest them in energy transition and industrial decarbonization.

9.2. Fiscal Implications for Mozambique's Energy Transition

Building on the previous results, the implications of the CBAM for Mozambique are substantial and call for strategic policy decisions to mitigate negative impacts while maximizing potential economic opportunities. Three policy options are discussed below, outlining the benefits and challenges of each approach.

Option 1: Using Carbon Offsets to Comply with CBAM

One of the simplest short-term alternatives for Mozambique would be to use carbon offsets as a mechanism to meet CBAM requirements. In this case, companies such as Mozal could invest in domestic or international offset projects (such as reforestation or conservation programs) to compensate for their carbon emissions.
Although this approach may appear attractive at first, as it avoids the need for domestic carbon taxation, it raises several economic and political concerns:

1. Loss of Fiscal Control: Offset payments are likely to flow to external programs or intermediaries, leaving the Mozambican government with no direct control over these financial resources. This limits the country's ability to reinvest such funds in local mitigation and industrial development initiatives.

2. Limited Climate Benefits: Evidence from studies such as Badgley et al. (2021) shows that many offset programs overstate their real emission reductions, a problem known as over-crediting. As a result, the climate impact of offsets is often marginal.
3. Questionable Additionality: Calel et al. (2021) note that many offset-funded projects would likely have been implemented even without carbon credits, reducing their additional contribution to emission reduction.
4. External Dependence: Relying on external market mechanisms perpetuates Mozambique's dependency on international systems, diverting focus from building domestic climate and fiscal resilience.

Hence, while carbon offsets offer a relatively easy short-term path, they sacrifice fiscal sovereignty, yield limited mitigation results, and fail to drive the structural transformation needed in the industrial sector.

Option 2: Implementing an Economy-Wide Carbon Tax

The second option involves adopting a comprehensive carbon tax across the Mozambican economy, extending beyond the aluminium sector. This approach aims to internalize the true cost of carbon emissions while promoting cleaner production processes.

The main implications include:

1. Greater Mitigation Effectiveness: Carbon taxes are generally more effective than offsets in reducing emissions, as they directly incentivize producers to decarbonize. By raising the cost of carbon-intensive activities, the tax creates a clear economic signal for adopting sustainable technologies and practices.
2. Retention of CBAM-Equivalent Revenues: Instead of paying CBAM tariffs directly to the EU, a domestic tax would enable Mozambique to capture these revenues internally, reinvesting them in energy transition, infrastructure, and industrial upgrading.
3. Significant Fiscal Revenue Potential: Among all options, a carbon tax offers the highest potential for government revenue generation, which could finance priority areas such as education, healthcare, and climate mitigation, thereby strengthening fiscal capacity.
4. Consumer Impact and Equity Concerns: A broad-based carbon tax could impose higher costs on consumers, particularly low-income households, as it may raise the prices of carbon-intensive goods and services.

Thus, while an economy-wide carbon tax is ambitious and effective, it requires compensatory measures–such as targeted subsidies or social transfers–to protect vulnerable consumers and ensure a just transition.

Option 3: Implementing a Carbon Tax Targeted at Aluminium Producers

The third and most pragmatic approach involves introducing a sector-specific carbon tax focused on the aluminium industry, particularly Mozal. This option offers a more targeted and balanced policy instrument, with manageable economic and political trade-offs.

1. Targeted Focus and Flexibility: Limiting the tax to the aluminium sector allows the government to control its scope and magnitude, tailoring the policy to industry-specific conditions. It also enables the restructuring of existing fiscal instruments, maintaining Mozal's international competitiveness.
2. Domestic Revenue Generation: Like the broader tax, this option ensures that CBAM-related costs remain within Mozambique, allowing revenues to be reinvested in industrial decarbonization, low-carbon energy infrastructure, and social programs.
3. Limited Impact on Consumers: Unlike an economy-wide tax, a targeted approach minimizes price effects on households, ensuring a fairer distribution of the carbon cost burden.
4. Promotion of Competitiveness and Sustainability: A focused carbon tax would incentivize Mozal to further reduce its carbon intensity, strengthening its global position while signalling Mozambique's commitment to green industrial policies. This could also attract international investment in sustainable production sectors.

Among the three alternatives, Option 3–introducing a carbon tax targeted at the aluminium sector–emerges as the most advantageous for Mozambique. It strikes an effective balance between economic competitiveness, fiscal revenue generation, and climate mitigation, without placing excessive pressure on consumers.

However, this policy should be accompanied by complementary measures, including investment in clean energy infrastructure, technological upgrading of Mozal, and strategic reinvestment of carbon tax revenues. Doing so would maximize both the economic benefits and the environmental gains of Mozambique's engagement with the CBAM framework.

In general, the implementation of a targeted carbon tax would not only align Mozambique's fiscal regime with global climate standards but also create a new domestic source of green fiscal revenue. This mechanism would enable the government to:

- Retain funds that would otherwise flow to the EU under CBAM;
- Finance the expansion of renewable energy and modernization of the national grid;
- Support industrial innovation and efficiency improvements; and
- Lay the fiscal foundations for a just and sustainable energy transition.

In this way, the CBAM, though initially designed as an external carbon regulation, can become a catalyst for fiscal reform and energy transformation in Mozambique, turning climate policy compliance into an opportunity for long-term economic resilience and green growth.

10. Conclusion

This study has shown that Mozambique's current fiscal regime for the fossil fuel industry is characterised by extensive tax incentives, weak rent capture, and limited alignment with the country's decarbonisation commitments. While multinational companies such as TotalEnergies and Vulcan have benefited from preferential arrangements and low royalty rates, the government's fiscal capacity has been significantly undermined. This has constrained Mozambique's ability to finance social expenditure, invest in infrastructure, and prepare for the long-term challenge of an energy transition. At the same time, international trends in decarbonisation and climate finance signal that Mozambique must plan for an inevitable phase-out of coal and gas dependence, both as an exporter of fossil fuels and as an importer of petroleum products.

Equally important, the emergence of CBAM adds a new external dimension to Mozambique's fiscal and industrial strategy. By imposing a carbon price on imports of emission-intensive products such as aluminium, the CBAM effectively links international trade to climate policy. For Mozambique, this presents both risks and opportunities: risks in terms of potential cost increases and competitiveness pressures for exporters, but also opportunities to capture value domestically if appropriate carbon-pricing instruments are introduced and revenues are directed towards energy-transition initiatives. The Mozal case demonstrates that a relatively low-carbon producer can improve its global ranking under the CBAM, yet without domestic policy alignment, the fiscal benefits of this adjustment will accrue to the European Union rather than to Mozambique's Treasury.

The analysis of comparative experiences offers valuable lessons. Sweden's carbon tax, widely recognised as a global benchmark, illustrates how environmental taxation can simultaneously reduce emissions and strengthen public finances. Similarly, South Africa's carbon tax and Ghana's progressive royalty framework for extractives show that African economies can implement fiscally responsible yet environmentally conscious regimes. These cases demonstrate that well-calibrated taxation can incentivise efficiency, curb excessive profits in the fossil sector, and direct revenue towards strategic national priorities.

For Mozambique, the energy transition carries a dual and complex meaning. On one hand, more than 50% of the country's export revenues currently derive from fossil fuels – primarily coal and natural gas – which play a critical role in generating foreign exchange and sustaining GDP growth. In this sense, the transition implies a progressive reorientation of the economy towards a more diversified and sustainable export base, ensuring that the gradual decline of fossil fuel demand in global markets does not undermine fiscal stability or external balances. On the other hand, most of Mozambique's productive sectors – including transport, manufacturing, and services – remain heavily dependent on fossil fuels for their daily operations. Here, the transition means fostering technological adaptation and investment in renewable infrastructure to reduce production costs, enhance energy security, and improve competitiveness.

Building on these lessons, Mozambique's path forward lies in restructuring its fiscal regime to gradually phase out fossil fuel dependence while enabling a fair and inclusive energy transition. This would involve reducing excessive concessions, aligning royalty and income tax rates with regional standards, and introducing environmental levies proportional to carbon intensity. Crucially, the revenues from these reforms should be ring-fenced and channelled into renewable energy expansion, decentralised electrification, and social protection programmes. Such an approach would not only strengthen fiscal resilience but also position Mozambique to lead by example in Africa's transition towards a low-carbon, inclusive development model.

In this context, taxation as a phase-out strategy represents a pivotal policy instrument. Mozambique can progressively introduce targeted fiscal measures – such as higher royalty rates on coal and gas, windfall-profit taxes on multinational extractors, and carbon levies on emissions and fuel consumption – to internalise environmental costs and discourage continued fossil-fuel dependency. Incorporating CBAM-aligned carbon pricing into this framework would further ensure that international climate mechanisms translate into domestic fiscal gains and industrial upgrading.

At the same time, these revenues should be earmarked for renewable-energy investment, energy-efficiency programmes, and social-protection schemes for communities and workers affected by decarbonisation. By linking taxation to environmental and social objectives, the government can transform fiscal policy from a tool of extraction into a driver of transformation, positioning Mozambique to finance its own transition, strengthen governance of multinational operations, and advance towards a fair, resilient, and sustainable post-carbon economy.

11. Recommendations

The recommendations presented below are organised into two complementary groups, reflecting the dual challenge Mozambique faces in reforming its fiscal framework while advancing a just energy transition. The first group focuses on strengthening revenue mobilisation through the correction of excessive tax incentives, improved rent capture, and enhanced fiscal governance – recognising that sustainable public finances are a prerequisite for any long-term transition strategy. The second group links taxation directly to the energy transition, outlining how fiscal instruments can promote renewable energy adoption, incentivise private and public investment, and support households in accessing clean technologies.

Group 1 – Fiscal Reform and Revenue Mobilisation

i) Rationalise and Reform Fossil Fuel Tax Incentives

Review and progressively phase out unnecessary fiscal exemptions, preferential regimes, and stability clauses granted to coal and gas megaprojects. Priority should be given to correcting overly generous provisions on VAT, customs duties, and corporate income tax, while tightening rules on loss carry-forwards, accelerated depreciation, and thin capitalisation.

ii) Introduce Environmental and Windfall Taxes

Establish targeted environmental taxes – including carbon levies, methane charges, and flaring penalties – to internalise the environmental costs of fossil fuel extraction and use. Implement a windfall profits tax on LNG and coal operators during commodity price booms to capture extraordinary rents and stabilise public revenues.

iii)Enhance Transparency and Governance in Fiscal Management

Mandate the public disclosure of all tax incentive agreements, fiscal exemptions, and related revenue flows under the Extractive Industries Transparency Initiative (EITI) framework. Strengthen parliamentary and civil-society oversight of fiscal policy in the extractive sector to ensure accountability and equitable use of public resources.

Group 2 – Linking Taxation to the Energy Transition

i) Earmark Fossil Fuel Revenues for Renewable Investment

Channel a defined share of fossil fuel tax revenues into a Green Transition Fund. Resources should finance solar, wind, hydro, and storage infrastructure, as well as climate adaptation and rural electrification initiatives.

ii) Integrate Fiscal Policy with Energy Transition Planning

Develop a coherent fiscal strategy that explicitly links fossil fuel taxation to incentives for renewable energy development. This should include VAT exemptions for clean-technology imports, tax credits for green investments, and reduced land and property taxation for renewable energy concessions.

iii) Support Inclusive Transition Through Targeted Incentives

Design progressive fiscal measures to make the energy transition socially inclusive. These could include tax rebates or subsidies for households adopting solar home systems or clean cooking technologies; investment allowances for public-sector renewable projects; and performance-based incentives for private investors who meet local content, employment, and sustainability criteria.

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