

# ENERGY IN AFRICA: WHAT RELATIONS BETWEEN ITALY AND MOZAMBIQUE?

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#### **EXECUTIVE SUMMARY**

## **Italy and Africa**

The revival of relations between Italy and African countries, among them Mozambique, needs to be contextualized within a framework of renewed Italian interest in the African continent. In this framework, the Meloni government is actively working on a new strategic project for Africa, known as "Mattei Plan", which aims at establishing equal and mutually beneficial relations with African partners, in a "non-predatory" context.

Against this backdrop, Mozambique represents an extremely relevant partner for Rome, drawing on solid relations at both a governmental and civil society level.

The energy sector plays a crucial role in Italy's approach aimed at aligning domestic objectives with the economic development of African countries. In the wake of recent discoveries of huge gas fields in Mozambique, which now ranks as Africa's third country for largest gas reserves, the Italian relation with Maputo has mainly focused on the development of this sector.

# Gas for development?

So far, the history of gas in Mozambique is a history of failure. The country qualifies as a perfect example of the so-called "resource curse", the phenomenon whereby the discovery of natural resources, instead of generating wealth and development, leads to increasing debt, corruption and instability – often before production even starts. This is indeed where the country stands today: the discovery of gas has not spurred economic growth and industrialization, public debt has tripled until reaching 91% in 2021, poverty and inequality rates have increased and a conflict in the Northern, gas-rich province of Cabo Delgado quickly escalated. The related humanitarian crisis has led to the displacement of over 3% of the population, claiming over 4500 lives and worsening the already severe food insecurity situation. While the conflict in the North of the country was not directly caused by gas exploitation, the launch of gas projects did increase tensions in a context which was already extremely fragile, and where pre-existing socioeconomic and political claims were exacerbated by the dynamics associated with unequal access to opportunities arising from gas exploitation.

Gas projects in Mozambique constitute a risky gamble for the country's finances, namely given the extreme volatility of gas prices in the global markets. The perpetual state of indebtedness and uncertainty about future revenues prevents the development of other economic sectors, thus jeopardising a necessary economic diversification of the national economy. Hence, Mozambique has been caught into an inescapable vicious circle – especially as elites' interests grow increasingly tied to the gas economy.

Furthermore, the architecture of contracts favors international gas companies as the primary beneficiary of gas revenues, while revenues for the local government will only materialize 15 years after the launch of the projects and 10 years after the start of the first gas flows. Such an arrangement is clearly unbalanced, as it offloads the risks of the gas industry on the country system.

Besides, projections over future government revenues were outlined with reference to economic scenarios where gas prices would gradually increase over time. This leaves Mozambique particularly exposed to falling gas prices, as per the IEA's net-zero scenario: in the framework of global decarbonisation efforts, gas demand, LNG trade and consequently gas prices are expected to decline by the end of this decade already. In contrast, Mozambique's expected revenues from gas projects assume much higher gas price levels until 2050.

While both national and international attention has been focusing on gas development in Mozambique, the country is one of the most vulnerable to climate change impacts at a global level. Mozambique is already experiencing extreme weather phenomena, with devastating cyclones that in the past few years have claimed lives, displaced people and contributed to the spread of epidemics such as cholera. According to World Bank estimates, Mozambique is expected to spend USD 35.8 billion on emission reduction measures by 2030, equivalent to 30% of its GDP. Although this might look like a huge amount of money, the cost of inaction would be much higher.

#### The renewable model

Given the evident failure of an anachronistic economic development model centered on gas, which has proved to be detrimental from a socioeconomic, political, security and environmental point of view, a development model based on renewable energies might offer an alternative closer to the needs of the country and its population, far from the "resource curse" that has thrown Mozambique into a dangerous spiral of crisis.

After all, Mozambique can count on a huge potential for renewable energy, especially in hydro and solar power. These could generate significant social, political, and environmental benefits. Indeed, decentralized energy systems favor clean source integration through on- and off-grid electricity infrastructure, lead to an increase in local welfare, to improved electricity access in rural areas and to the creation of new jobs, thus directly benefiting local communities and their development. So far, however, renewable energy has only received a fraction of the attention and funding devoted to gas projects. The total international support for renewable energy projects in Mozambique is USD 230 million (2021), which amounts to only one sixth of public funding volume allocated to Mozambique LNG project alone.

# A new approach for a sustainable partnership with Mozambique

The case of Mozambique shows how shaping bilateral relations around fossil fuels exploitation is an anachronistic approach that does not guarantee fairness and sustainability. In fact, such an approach proves counterproductive both for Mozambique itself and for the promotion of stability and security on the African continent.

Pursuing investments in the gas sector exposes Italy and Europe to a significant range of social, economic, financial and security risks. Furthermore, Mozambican gas would have no relevant impact on Italy and Europe's energy security, neither in the short nor in the long run, as the necessary infrastructure and alternative technologies (primarily renewables and energy efficiency) to replace Russian gas flows is already available. Additionally, in the medium-term LNG plants built by Western countries (often with public guarantees such as in Mozambique), will benefit gas growing markets like India and China.

Therefore, there is room and opportunity for Italy to reconsider the assumptions and strategy of its approach to Maputo (and beyond), by taking the following directions:

- Commit to not supporting new gas exploration and production, both at a political level and through public finance, as these would extend well beyond the second half of the century.
- Review public finance incentives and use bilateral mechanisms (such as the Italian Climate Fund) and multilateral cooperation frameworks to unlock Mozambique's high potential for renewable energy and electricity infrastructure.
- Activate economic and industrial diplomacy to identify zero-emission projects, that can involve new and different private actors and mobilize private finance.
- Encourage the development of alternative economic sectors to fossil fuels that can foster sustainable and inclusive economic growth for the country and its people:
  - Mozambique is endowed with vast deposits of critical minerals such as lithium, graphite, and copper.
  - Climate-smart agriculture combines the development of the agricultural sector with the enhancement of food security and increasing resilience to climate change, which is causing huge losses in agricultural output.
  - With its 2700 km coastline, fisheries constitute a mostly untapped sector with largely unexploited potential.
  - o In view of the country's naturalistic credentials, Mozambique has enormous potential in tourism.
  - o The Italian government should increase efforts to support the conservation of Mozambique's rich biodiversity, soils and forests, which create long-term value, resilience and new jobs.

- Prioritise the support to effective adaptation policies and projects that will prevent and reduce the future damage and costs of climate change in Mozambique, given the country's high exposure to the impacts of global warming.
- Capitalise on Italy's increasing relevance on the African continent and on the strength of the Rome-Maputo relationship to advocate for Europe's "integrated approach" to the crisis in Mozambique to include the multidimensional consequences and dysfunctions associated with gas exploitation, thus emphasizing the development of alternative sectors as an important pillar of the strategy of crisis management in the country.

#### 1 THE MELONI GOVERNMENT'S FOCUS ON AFRICA

The attention that the Meloni Government is focusing on Africa reinforces a renewed and more comprehensive perspective on the continent that has characterized the last decade of Italian foreign policy, as codified in the "<u>Italy-Africa Partnership</u>," a document published by the Ministry of Foreign Affairs and International Cooperation at the end of 2020, defining Africa as "a long-standing absolute priority of Italian foreign policy."

Since its establishment in October 2023, the Meloni Government has placed particular emphasis on capitalizing on Italy's geopolitical position as a bridge between Europe and Africa. This is both to assert its prominent international role and to safeguard and promote its economic, energy, and migration-related interests.

This has also become evident through numerous initiatives organized by the Government on various levels to engage African partners and organizations active on the continent. Examples include the International <u>Conference on Development and Migration held in Rome in July 2023</u> and the fourth Italy-Africa Intergovernmental Summit.

In the coming weeks, the Government is expected to unveil the draft of its Mattei Plan, often described as a pragmatic, equitable, and non-exploitative approach to African partners. It is a model of partnership that focuses on mutual advantages and benefits, both for Italy and its national interests and within a broader European context.

In this framework, in the <u>words</u> of Meloni herself, energy represents a key element to "reconcile Italian national interest with the right of our partners to experience a season of development and progress" and is crucial to "give a fairer and more equitable direction to ecological transition." Thus, there is room for increasing Italian-African cooperation in the fields of energy transition and climate change mitigation.

# 2 ITALY-MOZAMBIQUE RELATIONS

Within the framework of the network established by Italy in the African continent, Mozambique has represented and continues to be a crucial piece. While relations between Rome and Maputo date back to the pre-independence era from Portuguese colonial rule, achieved in 1975, the true catalyst for bilateral cooperation was the involvement of the Italian government and the Community of Sant'Egidio in the peace process that led to the Rome Accords in 1992, marking the end of a long civil war that had ravaged Mozambique for 16 years. Today, the Community of Sant'Egidio remains a

prominent player in Italian-Mozambican relations, especially in the field of international cooperation.

From a geopolitical perspective, the strategic importance of relations with Mozambique for Italy (and beyond) primarily lies in its geographical position on the Indian Ocean. Mozambique serves as the gateway to the sea for four neighboring countries (Malawi, Zambia, Zimbabwe, Eswatini), thus assuming a significant strategic role within the context of Southern Africa. Within this context, the Mozambique Channel, a maritime corridor stretching 1800 km and separating Madagascar from East Africa, is of paramount importance for global geo-economic balances. It plays a crucial role in maritime transportation, serving as a primary logistical hub on a global scale.

In recent years, Italian attention to Mozambique has particularly involved the energy sector. Following the discovery of vast gas reserves by international oil companies, including Eni, between 2010 and 2014, and given the optimistic development projections for the gas sector, Mozambique has become a stop on the tour undertaken by Italian authorities under various governments. This was especially emphasized following the Russian invasion of Ukraine, with the aim of securing energy partners to replace Moscow.

However, over a decade since the discovery of gas reserves in the country, the reality of the gas sector in Mozambique reveals a very different picture from economic and energy perspectives. It also has political and security implications, diverging significantly from the <u>expectations</u> that viewed gas development as a sustainable model for Mozambican prosperity and security.

# **3 THE REALITY OF GAS IN MOZAMBIQUE**

According to various analyses, Mozambique is experiencing a phenomenon known as the "resource curse" or "paradox of poverty," (<u>resource curse</u>) where the discovery of significant oil and gas reserves often leads to increased <u>indebtedness</u>, corruption, and instability, even before production begins. In the Mozambican context, this is occurring both at the macroeconomic level and in terms of the living conditions of the population, as well as from a security perspective.

#### 3.1 A TERRITORY RICH IN RESERVES

Mozambique is the third-largest country in Africa in terms of <u>proven natural gas</u> <u>reserves</u>, with approximately 2.8 trillion cubic meters. Over the past decade, following the initial discoveries of reserves starting in 2010, Mozambique has increased its domestic natural gas production, experiencing a 52% rise. However, domestic gas

consumption within the country has consistently represented very low percentages of the total production, with an average of 2-3%. On the contrary, when considering the total production, exports over the past decade have averaged 87%. In 2019, Mozambique exported 4.41 billion cubic meters of gas, against a production of 5.41 billion. This means that the country exports nearly all of the gas it produces, despite the fact that the population's access to electricity stands at 32%.

The currently operational gas reserves are concentrated in two areas of the country: near Quelimane in central Mozambique and in the northern province of Cabo Delgado. As mentioned, the vast majority of the gas production is directed towards export infrastructure, primarily through a pipeline connecting the country to South Africa and via a floating liquefied natural gas facility. The latter, the <u>Coral Sul FLNG</u>, primarily operated by Eni along with other international partners such as ExxonMobil, has positioned Mozambique as a new gas exporter to Europe¹. In contrast, there is only one gas-powered thermal power plant within Mozambique's territory, demonstrating that the gas produced in the country is not intended for domestic consumption. The lack of network connections, especially in rural areas, presents an additional obstacle.

Examining the development plans of international oil companies, including ENI, ExxonMobil, and TotalEnergies, it becomes clear that their presence in Mozambique is largely associated with the development of additional infrastructure to increase natural gas export capacity. Among these projects, the Mozambique LNG natural gas liquefaction plant, led by Total and involving the Italian company Saipem as a contractor, received Final Investment Decision (FID) in 2019 but has been on hold since 2021 due to the deteriorating security conditions in the province of Cabo Delgado following the attack on the town of Palma by the local Islamist militia known as al-Shabaab. According to statements from late September 2023, Total is planning to resume work by the end of the year due to the "improvement in security conditions." Another project is Rovuma LNG, managed by Exxon and Eni, which has not yet obtained an FID.

The development projects in Mozambique's gas fields require substantial <u>investments</u>. Between 2020 and 2025, an estimated mobilization of \$60 billion has been projected to harness Mozambique's gas resources. These investments necessitate guarantees, and from the Italian perspective, SACE (Italy's export credit agency) <u>has provided assurances</u> for Eni's Coral South project (\$700 million) and covered Saipem's risks with financing totaling \$950 million within the Mozambique LNG project.

<sup>&</sup>lt;sup>1</sup> In September 2023, it was <u>reported</u> that Eni is currently seeking a partner to conduct offshore drilling operations in Area 4 of the Rovuma Basin (in the Cabo Delgado province) and is initiating procedures to develop a second floating liquefied gas export platform, known as Coral Norte. This platform would double the gas extraction from Area 4.

Risk management is pivotal in this region. The success of Coral Sul FLNG, on one hand, and the stall of the two LNG projects on the other, are linked to their locations. While the two LNG terminals are planned for construction onshore, the *offshore* floating platform of Coral Sul has allowed operations to proceed without being affected by conflicts in the Cabo Delgado area, thus preventing potential delays in development.

#### 3.2 GAS, CONFLICTS AND DENIED RIGHTS

The text provided discusses the eruption of violent conflicts near gas projects, resulting in a <u>humanitarian crisis</u>. In 2017, an Islamist insurgency erupted in Cabo Delgado, progressively worsening into a conflict that displaced over 3% of the national population, causing over <u>4,500 victimes</u> and exacerbating the already dire food insecurity situation in the country.

Six years after the outbreak of violence, and following more or less effective interventions by external actors alongside the Mozambican government, tension has decreased due to the military pressure exerted against the al-Shabaab insurgents. However, the conflict has primarily been addressed through a strategy of militarization, involving multiple actors such as the military, private contractor groups working for the government, and the al-Shabaab militants. This has quickly devolved into a situation of heightened insecurity and continuous <a href="https://doi.org/10.2016/journalists">human rights violations</a> against civilians, journalists, and those suspected of being part of the insurgency. While protecting gas infrastructure has become a priority, strategies to address the root causes of the conflict have not been effectively implemented, threatening a continuation of low-intensity conflicts in the near future. The deep socio-economic inequality in the region remains largely unaddressed, making young people living in conditions of poverty and marginalization more susceptible to joining militant groups.

While the conflict in Cabo Delgado may not have been directly caused by the development of gas, the initiation of gas exploitation projects has certainly exacerbated an already fragile context. Preexisting socioeconomic and political grievances were further inflamed by the unequal access to opportunities arising from natural gas exploitation. This has occurred on two levels. On one hand, the personnel required for research and development in the gas sector were primarily recruited from abroad, or at the very least from other provinces. Therefore, there was no connection between the local population and the dynamics related to the natural resources abundant in their territory from the outset. On the other hand, the situation of inequality was opportunely fueled by the international gas companies themselves. They successfully exerted pressure on the Mozambican government to limit the legal strength of local laws in the context of supply chain development and to restrict access to information about the contracts they had signed.

This created a context of limited to non-existent accountability regarding the consequences of the sector's development, while simultaneously leading to the displacement of numerous local communities to make way for gas development projects, thus exacerbating conflicts related to land use. Not only access to land but also access to the sea has been called into question by the gas reserve exploitation processes, dealing another blow to the traditional economy and <a href="mailto:means of livelihood">means of livelihood</a> of the population. In essence, both in the context of exploiting local resources and managing the conflict, local communities have paid the highest price – without receiving anything in return.

#### 3.3 DISAPPOINTED ECONOMIC GROWTH EXPECTATIONS

As anticipated, in Mozambique, the gas sector has failed to drive the national economy as projected. In stark contrast to the IMF's 2016 projections of a 34% GDP growth in 2021, Mozambique's actual economic growth was 2.3%. Specifically, the country's economic growth rates have progressively declined in the years following the initial gas discoveries. Other unfulfilled forecasts relate to the improvement in the population's access to energy in Mozambique – which currently stands at just 32% for electricity and 5% for clean cooking, and the level of national industrialisation.

Looking at the conditions of the population, Mozambicans are now poorer compared to a decade ago, and inequality has increased: In 2021, 90% of the population was below the international poverty threshold of \$1.90 per day. Instead of increasing after the gas discoveries, Mozambique's fiscal space has significantly reduced; external debt as a percentage of GDP has tripled since the first gas discovery, reaching 91% in 2021. In part, this increase in debt is a direct consequence of gas projects, particularly public financing toward the Mozambican national oil company, ENH. In 2019, Maputo issued a sovereign guarantee of \$2.2 billion to enable ENH's participation in the Mozambique LNG project. This guarantee has weighed on the national finances so far because the ongoing force majeure status on the project, which is expected to be resolved by the end of 2023, has halted its development.

The development of the Rovuma LNG project will also have consequences for the debt situation, <u>if it proceeds</u>, ENH would need additional sovereign guarantees to participate, further burdening Mozambique's debt. On the other hand, if the project does not continue, according to estimates from the World Bank, the national oil company would remain a source of public debt until as late as 2047.

Gas projects pose a risky bet for Mozambique's finances, given the risk of collapsing prices on global markets. <u>The Natural Resource Governance Institute</u> estimates that the total value at risk of ENH's capital expenditure in a decarbonisation scenario, which

keeps gas prices low due to reduced global gas demand, is equivalent to 179% of Mozambique's total annual government spending.

In this context, the perpetual state of indebtedness and uncertainty about the future availability of gas sector revenues, compounded by the unstable security conditions undermining its progress, hinder the development of other economic sectors that would support the necessary diversification of the national economy. The country is thus caught in a vicious cycle that is increasingly difficult to break, especially as the interests of the elite become more closely tied to the gas economy.

#### 3.4 THE TRAPS OF CONTRACTS

The structure of the gas contracts makes the situation even more challenging, deviating from the principles of equal partnership and non-predatory logic that the Meloni government would like to pursue through the Mattei Plan. Upon analyzing the contracts, the needs of the gas industry are well represented, while the risks are shifted onto the country's system. In fact, the contracts are designed in such a way that investors and project developers recover their initial investment before all other parties involved, allowing government revenues to mature only at a later stage. In the current reference scenarios, most of Mozambique's state revenues would not arrive until at least 15 years from the start of construction and 10 years from the commencement of the first gas flow. Cost overruns and project implementation delays could further postpone these revenues. Consequently, this leads to an imbalance of benefits among the parties.

For example, for the Mozambique LNG project, it is unlikely that Maputo will <u>receive</u> <u>significant revenues before 2035</u>; estimates indicate that 70% of the revenues will only mature after 2040. As a result, the estimated public revenues of \$18 billion have a net present value of only \$3.4 billion (assuming a discount rate of 10%).

This amounts to less than a quarter of Mozambique's current national debt – a figure far from the tens or hundreds of billions of revenues initially declared and projected.

In addition to this, another piece of the puzzle is that: the projections for future government revenues have been outlined with reference to a scenario in which the gas sales price would gradually increase over time. At the same time, the contract structure makes Mozambique particularly vulnerable to risk if future prices were to decrease instead of rise. This is not a remote risk by any means: in the IEA's net-zero scenario, gas demand, LNG trade, and gas prices decrease rapidly by the end of this decade. Mozambique's expected revenues from gas projects, however, are calibrated to much higher gas price levels until 2050.

<u>Analysis</u> of the contractual terms for the Coral South LNG projects has also shown that Eni risks having overestimated Mozambique's potential revenues by about 38%.

Therefore, the revenue estimates from the Mozambican Ministry of Energy would amount to more than double of what is likely to be realized. The situation worsens further when considering a lower-demand scenario triggered by global climate policies in line with the 1.5-degree target. If prices were to fall to the levels estimated in the IEA's net-zero scenario for 2030-2050, Mozambique's government revenues would collapse by 50-70%.

### 3.5 CLIMATE CHANGE

To all of this, there's yet another piece of the puzzle: Mozambique is one of the world's most vulnerable countries to the impacts of climate change. The country is located in the Intertropical Convergence Zone, a narrow band characterized by humidity and precipitation that is expected to shift in a non-uniform manner, affecting water availability, food production, and disease distribution. With the majority of Mozambicans residing along the coasts, enduring chronic poverty, inadequate healthcare services, and a strong reliance on subsistence agriculture, any changes in ecosystems are bound to have an immediate impact on the population.

Extreme weather events have already struck Mozambique, with devastating cyclones in recent years causing casualties, displacements, and contributing to the spread of diseases such as cholera. This is why the Mozambican government has declared adaptation and climate risk reduction a national priority in its national contribution to achieving the goals of the Paris Agreement. While this awareness is crucial, it is also important to take an additional step to safeguard the country from the impact of climate change by actively working towards the goal of climate neutrality by 2050. This involves gradually abandoning fossil fuel projects in favor of alternative paths and seizing new opportunities. In other words, the focus should not only be on adaptation and resilience but also on increasing investments in renewable energies, harnessing Mozambique's potential.

According to the World Bank's <u>estimates</u>, Mozambique needs to spend \$35.8 billion on climate change mitigation measures by 2030, which is equivalent to 30% of its GDP. While this may seem like a substantial amount, the cost of inaction would be much higher.

# **4 BEYOND GAS: RENEWABLES IN MOZAMBIQUE**

An economic development that brings social, political, and environmental benefits cannot disregard the development of renewable energy sources. A decentralized energy system promotes the integration of clean sources, leads to increased local well-being by improving access to electricity in rural areas, and creates new job

opportunities, thereby empowering local communities and fostering their development. This scenario is in stark contrast to what has occurred so far with the attempt to develop the gas sector.

Above all, Mozambique is not new to renewable energy. In 2011, the country approved its "Renewable Energy Strategy," aiming to introduce 450 MW of clean energy technologies over a 15-year period (2011-2024). The document acknowledges the need to accelerate electrification efforts, prioritizing rural areas through the expansion and enhancement of the national grid, the utilization of renewable sources, optimization of low-cost solutions, and the implementation of measures to ensure productive and efficient use of electricity.

Given the low electricity access rate for Mozambican citizens, under the "Energy for All" program launched in 2018, the government has worked to increase the availability of electricity by promoting public-private investments in new production infrastructure, with a growing contribution from renewable energies in the national energy mix. In this same direction, the Mozambican government also approved the "Electricity Infrastructure Plan 2018-2043." Within this framework, Mozambique's involvement in the "ElectriFl Country Window" program, which several other African countries are participating in, financed by the EU in close collaboration with the national government, provides a suitable tool to meet these ambitions. Launched in 2022, it includes an allocation of 15 million euros funded by the European Development Fund and the PROMOVE Energia program, and it is managed by the EU delegation and the Mozambican government.

To date, in the face of a 32% electricity access rate, <u>renewable energy</u> accounts for about 80% of the total primary energy consumption. However, 85% of this is represented by traditional biomass (wood fuels, agricultural byproducts, and animal dung burned for cooking and heating instead of direct electrification), with only the remaining 15% coming from hydropower. The installed renewable capacity as of 2020 was 2.3 GW, of which 95% was from hydropower, 4% from solar, and only 1% from bioenergy. Consequently, the share of electricity generation covered by renewables is significant. Out of a total of 15,603 GWh, 95% is represented by hydropower.

Mozambique also has one of the highest potentials for hydroelectric energy development in Africa, estimated at over 12,000 MW. The country is blessed with numerous rivers, especially in the Tete and Zambezi provinces. With 2.2 GW installed as of 2022, the largest contribution comes from the Cahora Bassa Dam with 2,075 MW installed. This dam plays a crucial role in providing electricity to nearby villages and neighboring South Africa. It is located in an area with significant development potential. One of the ongoing projects is the expansion of Cahora Bassa with an additional 1,245 MW. Just 60 kilometers away, another plant, Mphanda Nkuwa, with a capacity of 1,500 MW, is in development.

**Mozambique also has tremendous solar potential.** The country's solar radiation ranges from 1,785 to 2,206 kWh/m2 per year, equivalent to a total of 23 TWp. The Mozambique Energy Fund has identified 189 suitable sites with a potential of 2.7 GW, which is nearly equivalent to the current installed electric capacity. Currently, the selected gridconnected sites reach 599 MW.

Finally, the identified <u>potential wind energy capacity</u> is 4.5 GW, primarily concentrated in the southern provinces and the hinterland. Of these, 1,100 MW can be immediately connected to the grid, while the remaining sites are weakly connected at the moment. 230 MW are considered high potential, mainly located in the Maputo and Gaza areas, characterized by over 3,000 equivalent hours per year at nominal capacity.

The United Nations Environment Programme (UNEP) is promoting a program focused on the "Demonstration of the Commercial Feasibility of Rural Renewable Energy MiniGrids." The planned activities center around the selection of energy-access-deprived sites suitable for hosting a mini-grid and the development of business cases based on local needs, resources, and conditions. This process defines appropriate financial mechanisms while considering local policies and regulations.

Renewable energy not only contributes to electrifying rural areas through mini-grid solutions but also creates new job opportunities and professional development. Investments in renewable energies in Mozambique have already generated employment opportunities. The construction of the <u>Mocuba solar plant</u>, for example, provided work for over 1,050 Mozambicans during its peak activity period.

However, so far, renewable energies have received only a fraction of the attention and funding compared to gas projects. <u>The total international support</u> for all renewable energy projects in Mozambique by 2021 amounted to \$230 million – only a sixth of the public financing volume allocated to the Mozambique LNG project alone.

# **5 A NEW APPROACH WITH MOZAMBIQUE**

Mozambique represents a key country in Italy's projection towards a continent that has gained increasing importance in Italian and European foreign policy, as well as in global dynamics.

In particular, the Mozambique case demonstrates that building a bilateral relationship centered on the exploitation of fossil fuels is not only unsustainable given Italy's commitment to the energy transition, but it also proves counterproductive for the country's development, considering the negative economic, security, and social consequences. In this context, the interest that the government is showing internationally for the African continent provides the right opening to rethink the bilateral cooperation strategy to focus more on sectors alternative to gas – particularly on renewable energies.

For Italy and, more broadly, for Europe, persisting in investing in the gas sector exposes a significant range of risks. Current contracts and policies are not designed to generate short-to-medium-term benefits for the Mozambican people but risk exacerbating social fractures and, therefore, the possibilities of conflict and instability. On the other hand, the progressive decrease in gas demand in the medium term, both at the European<sup>2</sup> and global levels, and the prospect of lower prices than previous expectations imply that continuing to invest in the gas sector risks generating stranded assets, i.e., investments that become unproductive or unremunerative in the near future. Finally, Mozambique's gas will not have a significant impact on the energy security of Italy and Europe. Even without Russian gas supplies, Italy already has the necessary infrastructure for its energy security, without the need for new investments in infrastructure or gas fields. In Italy, renewables and energy efficiency have the potential to replace up to 80% of Russian gas imports by 2025, and the same applies to Europe. Scenarios for the coming winter of 2023-2024 also show energy security can be achieved without the need for new gas investments, which, in any case, won't have any short-term impact on energy security.

In light of all this, the new LNG infrastructure in Africa built by Western companies, often with public guarantees as in the case of Mozambique, is expected to <u>benefit</u> growing gas markets such as India and China, whose gas demands are projected to increase by +66% and +11% in 2030, respectively, compared to 2021 <u>under current and announced policies</u>, while gas demand for Italy and Europe is estimated to decrease by -50% by 2030 compared to 2021 in the <u>RepowerEU scenario</u>.

In this context, focusing the relationship with Maputo on the gas issue risks, at this stage - and increasingly in the future, to lock the relationship with the African country into an anachronistic approach and a vicious circle that will be increasingly difficult to break, making choices that are difficult to justify from both a climate and geo-economic perspective.

<sup>&</sup>lt;sup>2</sup> Snam projects Italian gas demand for 2030 to be in the range of 42 to 59 billion cubic meters, which is a decrease of 15% to 40% compared to 2022. The updated National Integrated Plan for Energy and Climate (PNIEC) for 2023 anticipates Italian gas demand for 2030 to decrease by 26% compared to 2022. Similarly, this trend in gas demand is also observable at the European level. In 2021, European gas demand was 414 billion cubic meters, and the European Commission estimates a 42% decrease by 2030 and a 69% decrease by 2040. Source: ECCO analysis based on data from Snam, PNIEC 2023, and the European Commission.

In view of this analysis, there is room for Italy to review the assumptions and practice of its approach towards Maputo (and beyond), taking the following directions:

- Commit to not supporting new gas exploration and production, which would continue well beyond the second half of the century, both at the political level and through public finance. The government should require Italian energy companies to follow the political direction expressed repeatedly by the government since the beginning of its term, namely pursuing non-predatory development in the collective public interest. Today, new investments in gas are not compatible with a sustainable development trajectory for Mozambique, with the climate goals of both countries, or with the security and stability goals pursued by the government. Instead of perpetuating dependence on fossil fuels, the Italian government should assist the Mozambican government in integrating decarbonisation and climate resilience into the country's economic and industrial development plans and financial plans, helping to calculate the costs of both climate action and inaction.
- Review public finance incentives and bilateral and multilateral cooperation
  mechanisms, such as the Italian Climate Fund, to unlock the high potential in
  renewable energy, providing guarantees for private investments in clean energy
  and sustainable development. A concrete plan for the development of electrical
  infrastructure and mini-grids across Mozambique, involving various private actors,
  would increase access to electricity, especially in rural areas. This would contribute
  to generating socioeconomic well-being and, consequently, stability in areas
  where widespread poverty currently fuels discontent and creates fertile ground
  for radicalisation.
- Activate forms of economic and industrial diplomacy for the identification of zero-emission projects that are open to the participation of new and diverse private actors and can mobilize private finance. The contribution of these actors should not be limited to providing support for the construction of facilities but should support long-term planning, including innovation and capacity building along the value chain.
- Encourage the development of additional economic sectors alternative to fossil fuels that can promote sustainable and inclusive economic growth for the country and its population:
  - Mozambique is endowed with vast deposits of critical minerals that will play a key role in the global energy transition, such as lithium, graphite, and copper. Therefore, supporting the development of a sustainable extractive industry that respects human rights and United Nations environmental and labor standards would allow for the responsible exploitation of these resources. Simultaneously, it is necessary to support the development of an industrial sector capable of processing these materials to create and retain as much value as possible locally and avoid a return to the old extractive model.

- climate-smart agriculture (CSA) combines agricultural sector development, improved food security, and increased resilience to climate change, which is causing significant losses in agricultural production. A strategic approach to the agricultural sector, which employs 80% of the workforce, would enable the country to move beyond subsistence agriculture to harness Mozambique's immense agricultural potential (currently, only 16% of arable land is cultivated) and its strategic geoeconomic position. In an extremely climate-vulnerable context like Mozambique and for long-term sustainability, the adoption of climate-smart techniques is crucial.
- o With 2,700 kilometers of coastline, another very promising and mostly untapped sector for Mozambique is fisheries, which could make a significant contribution to food security, employment, and sustainable and inclusive economic growth for local communities. This sector also has the potential to generate significant revenue for the state. However, to do so, it is essential to promote a different approach to fishing, one that is based on the sustainable, not just the exploitative, management of marine resources. This also involves particular attention to the impact of the extractive industry, especially offshore gas extraction, on Mozambique's coastal and marine ecosystems.
- o Considering the country's natural assets, Mozambique also has **enormous potential in the tourism sector**, largely unexplored to date due to the instability caused by the conflict that erupted in 2017 and the crisis related to COVID-19, which had a <u>significant impact</u> on the country's tourism infrastructure, which was not particularly advanced to begin with. Italy's strong tourism industry could be the key to strengthening bilateral cooperation in this sector, which has the potential to become a cornerstone of the Mozambican economy provided that security conditions remain stable.
- The Italian government should increase efforts to support conservation programs for Mozambique's rich biodiversity, soils, and forests, which create long-term value, stability, and new job opportunities.
- Given Mozambique's high exposure to the impacts of climate change, the Italian
  government should prioritize supporting effective adaptation policies that allow
  for the prevention and reduction of future climate change-related damage and
  costs. In this case as well, precise project identification is needed, linked to
  financial flows that provide the necessary resources for project implementation.
- Capitalize on Italy's growing relevance in the African continent and the strength of the Rome-Maputo relationship to insist that the EU includes in its <u>"integrated approach"</u> to the crisis in Mozambique the multidimensional consequences and dysfunctions associated with gas field exploitation. This

should include an in-depth focus on economic development in sectors alternative to gas as an integral part of the strategy for overcoming the crisis in the country.



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