

FROM ENERGY SECURITY TO SOVEREIGNTY

PATHWAYS FOR A JUST
ENERGY TRANSITION IN EGYPT,
MOROCCO, AND TUNISIA



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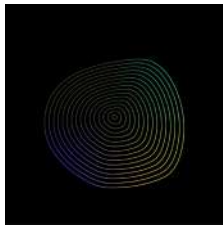
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LIST OF ABBREVIATIONS

AMEE	Agence Marocaine pour l'Efficacité Énergétique (Morocco)
ANME	Agence Nationale pour la Maîtrise de l'Énergie (Tunisia)
BOO	Build–Own–Operate
BOT	Build–Operate–Transfer
CSR	Corporate Social Responsibility
E&S	Environmental and Social
EBRD	European Bank for Reconstruction and Development
EGAS	Egyptian Natural Gas Holding Company
EGPC	Egyptian General Petroleum Corporation
ENI	Ente Nazionale Idrocarburi
ICJ	International Court of Justice
IEA	International Energy Agency
IEOC	International Egyptian Oil Company
IMF	International Monetary Fund
IOC	International Oil Company
IPP	Independent Power Producer
LNG	Liquefied Natural Gas
NREA	New & Renewable Energy Authority
ONEE	Office National de l'Électricité et de l'Eau Potable (Morocco)
PPA	Power Purchase Agreement
PPP	Public–Private Partnership
PSA	Production Sharing Agreement
PSC	Production Sharing Contract
RE	Renewable Energy
SME	Small and Medium-sized Enterprise
TES	Total Energy Supply (an IEA specific methodology)
TranSMED	Trans-Mediterranean Gas Pipeline

EXECUTIVE SUMMARY

This report maps how energy value is created, transferred, and captured across Egypt, Tunisia, and Morocco and uses an adapted Energy Sovereignty Index to assess who controls resources, who benefits, and how policy space is constrained. It traces the fossil-fuel value chain, current energy mixes, and the rise of utility-scale renewables to show that the region's transition is changing technologies faster than it is changing power relations. The central finding: pursuit of energy security and export-led hard-currency goals has been prioritized over energy sovereignty, delivering short-term adequacy while deepening external control over prices, technology, and planning.

Methodologically, the Energy Sovereignty Index assessment for the 3 North African Countries, was against four dimensions—Renewable/Energy “cleanness,” Independence & Resource Control, Accessibility & Justice, and Policy Autonomy, through concrete indicators (e.g., domestic control of production, rent capture, outage frequency, export-first obligations). Country readings converge on a sovereignty deficit, albeit for different reasons and were scored against an average score of 10. Egypt scores 4.5 as it is gas-dominant and contractually export-oriented, with IMF-era reforms pressuring affordability and policy autonomy. Tunisia scores 4.25 as it is import-dependent and implementation-constrained, with renewables still marginal and pipeline-anchored gas shaping dispatch. Morocco scores the highest at 5.5 as it has moved fastest on renewables and planning, yet remains coal-locked for domestic supply and heavily reliant on foreign-owned assets and export-facing projects.



The analysis identifies “false solutions” that entrench dependency such as technology “fixes” including carbon capture and storage that extend fossil lock-ins, and false narratives that rebrand many International Oil Companies as “energy companies” while externalizing costs. Furthermore, policy models (such as Build-Own-Operate BOO Model) that secure investor returns without guaranteeing public benefit or domestic offtake. Across the three countries, mega-projects often sit on public land and grids while profits, technology, and control flow outward.

Pathways forward focus on rule-changes, not just megawatt additions. There must be a phase down of new fossil exploration awards, publish decommissioning ladders, cut methane and flaring with fee-rebate designs, and domestic-priority clauses. Renewables must pivot to “distributed-first” systems (rooftops, microgrids, municipal/co-op models) that are decentralized by nature especially when considering the geography of the 3 countries, mandate minimum domestic offtake (25–15%) for export-oriented projects, establish community dividends funded from gross revenues, and bind local-content and workforce obligations into operation and maintenance. To finance a just transition and ensure accountability, the report outlines polluter-pays instruments (starter levies on IOC profits, methane/flare fees, strict liability and decommissioning bonds), strategic litigation grounded in the 2025 ICJ advisory opinion, and formula-based revenue sharing to ring-fence funds for environmental repair, water protection, public health, and just-transition livelihoods. International tracks (e.g., a UN tax convention) should complement, never replace, domestic accountability and guaranteed public returns when public assets are used. Together, these tools transition extraction into enforceable public obligations, reclaiming energy sovereignty and policy space across Egypt, Tunisia and Morocco.



INTRODUCTION

This report provides an overview of the fossil fuel value chain and energy sector in Egypt, Tunisia and Morocco, with a focus on understanding the current state of energy sovereignty in each country based on a set of defined criteria. The context integrates the level of impact that the landscape of the fossil fuels value chain has had in the 3 respective countries. The report also considers each country's current energy mix, prospects for renewable adoption, and just transition pathways. It is intended for policymakers, civil society, environmental advocates, academics, and legal experts in the MENA region seeking to understand the current state and framework of energy sovereignty and transition in the region. By highlighting gaps in governance, fiscal systems, and environmental safeguards, it provides insights to strengthen energy sovereignty and advance equitable transition strategies that protect livelihoods, health, and community well-being.

The analysis in this report draws on annual reports of fossil fuel companies, publications from national petroleum and energy ministries, peer-reviewed literature, archival records, and legal and policy documents. To assess the state of energy sovereignty in North Africa, this report develops an adapted version of the European Council on Foreign Relations' Energy Sovereignty Index¹, recalibrated to reflect the region's distinct historical and structural conditions. The revised framework therefore integrates justice, social and environmental integrity for local populations, equitable access to energy, and policy autonomy, emphasizing the ability of states to make independent choices free from external conditionalities - an indicator of energy sovereignty. The research was guided by three core questions:

1. WHAT IS THE FOSSIL FUEL AND EXTRACTION VALUE CHAIN IN THE THREE COUNTRIES, AND THE RESPECTIVE ENERGY MIX IN EACH COUNTRY?

2. WHAT ARE COUNTRIES' CURRENT STATE OF ENERGY SOVEREIGNTY OF THEIR NATURAL RESOURCES, IN TERMS OF EXPLORATION AND PRODUCTION?

3. WHAT ALTERNATIVES & OPPORTUNITIES IN THE RENEWABLE ENERGY SECTOR ARE AVAILABLE FOR NORTH AFRICAN COUNTRIES WHICH ARE JUST AND INCREASE ENERGY SOVEREIGNTY?

¹ Methodology Note [Link](#)

Furthermore, the study was also benchmarked against the author's pre-analysis ontological view on Energy Justice and Sovereignty. Energy sovereignty means the power of people, communities, and the state in North Africa to decide how energy is sourced, produced, distributed, and used in ways that are locally accountable, socially fair, and ecologically sustainable. Energy justice is the companion principle that asks who bears the costs, who receives the benefits, and who has a voice across the system. More local production or fewer imports alone do not deliver sovereignty or justice if authority and value remain concentrated or if harms are shifted to households and workers.



SECTION 1.

THE ENERGY LANDSCAPE IN EGYPT, TUNISIA AND MOROCCO



1.1 OVERVIEW

Energy sits at the heart of national priorities for growth and stability. Geography strongly shapes how a country thinks about energy, since some nations are endowed with fossil fuels or strong renewable potential such as steady wind corridors or high solar radiation, while others expand their territory or influence to secure resources. Whether stated explicitly or not, governments craft energy strategies to ensure sufficient supply and infrastructure for current needs, to meet future demand with resilience, and to capture export opportunities when possible.

North Africa is uniquely positioned as a bridge between Africa and Europe and between west and east through the Mediterranean and the Suez Canal, a route that carries about 15–12 percent of world trade and roughly 30–25 percent of global container traffic. This geography has sharpened European interest in the region's energy role since 2022, as seen in the EU's REPowerEU diversification push and new partnerships with North African countries such as the EU–Egypt renewable hydrogen MoU signed on 16 November 2022, which largely came after Russia's invasion of Ukraine and the interruption of Russian fossil fuels to Europe.

Unfortunately, in Egypt, Tunisia, and Morocco, a persistent challenge is that policy and investment choices often prioritize energy security over energy sovereignty. This has delivered periods of predictable supply and price containment, yet it has not guaranteed real domestic control over the energy system. External suppliers, cross border financing terms, and private off takers or concessionaires can still influence key decisions, leaving governments exposed to foreign or non state influence when markets tighten or when contracts restrict policy space.

Energy security is the ability to ensure reliable, affordable, and sustainable access to energy with resilience to shocks. Energy sovereignty is the ability of a society to exercise control over energy resources, infrastructure, and revenues in a way that maximizes local value and policy freedom. The tilt toward energy security has often meant building supply fast through imports, legacy concessions, and private power deals, which stabilized availability in the short run, but locked in dependencies and limited leverage over pricing, technology choices, and long term planning.

In national energy strategies across the region, including Egypt's Petroleum Sector Energy Efficiency Strategy 2035–2022² and Tunisia's Energy Strategy 2035³, energy security is presented as a central objective, while sovereignty is not directly or indirectly discussed or included. This omission likely reflects the political sensitivity of questions about control, ownership, and revenue distribution, even though those questions ultimately determine how much of the resources remains in actual

²Egyptian Petroleum Sector Energy Efficiency Strategy 2035–2022 [Link](#)

³Tunisia's Energy Strategy 2035 [Link](#)

of questions about control, ownership, and revenue distribution, even though those questions ultimately determine how much of the resources remains in actual control of the country. This has set the scene largely for the post-independence era of Egypt and Tunisia, where International Oil Companies (IOCs) operating in both countries along with fossil fuel and renewable energy investors, have shaped and influenced the direction that the energy sector is taking.

To understand the scale of works needed to have a fair and just energy transition in Egypt, Tunisia and Morocco, three countries which will have different realities for their level of extraction, reliance on fossil fuels and energy production but are brought together by their geographical context, it is crucial to understand the actual framework by which the current energy landscape is governed and the mapping of the value chain. This includes a mapping of how energy value is created, transferred, and captured across Egypt, Tunisia, and Morocco. The analysis does not center any particular corporation. Instead, it follows the chain of decisions and infrastructures that determine who bears risk, who sets priorities, and who benefits. In short, does the country actually control its value chain or is it not and likely susceptible to global disruptions?

1.2 THE FOSSIL FUEL VALUE CHAIN

First, it is crucial to understand how fossil fuel companies engage with the governance and legal framework in all three countries and how this affects the non renewable value chain.

While all three countries rely on state ownership of sub-surface resources and require international partners to operate within national laws and under the supervision of state entities, the dominant contract forms differ. Egypt operates Production Sharing Agreements or PSAs embedded within a legal tradition that still uses the term “concession,” and it channels operations through joint ventures with national companies. Tunisia allocates rights through a hydrocarbons code that sequences research permits into concessions, with the state taking part through its national company under either a joint-venture regime or a production-sharing contract regime. Morocco relies on partnership and concession instruments overseen by the national hydrocarbons office, with ministerial approval rather than parliamentary ratification for most upstream titles.

Egypt and Tunisia require parliamentary ratification of concessions, which can entrench contract-specific fiscal terms and stabilize expectations, but can also narrow the space for future correction. Morocco's ministerial approval can move faster and may be attractive to investors, but it places greater responsibility on administrative oversight and public disclosure to protect the public interest. Relinquishment rules also differ. Tunisia and Morocco codify progressive relinquishment of acreage during exploration phases, which helps return unused land to the state and keeps the licensing system dynamic. Egypt negotiates relinquishment case by case in each agreement. Relinquishment still happens, especially where exploration does not proceed to development, but the timing and quantum are more flexible to investors. Flexibility can help in complex plays, yet it can also slow the recycling of acreage if not managed with clear milestones.

On fiscal design, the region uses two broad models. Under PSAs, which are prevalent in Egypt and used in Tunisia's PSC regime, the investor carries exploration and development costs and recovers them from a share of production up to an agreed ceiling. The remaining production after royalty and tax is split as profit oil or gas between the state and the investor. Under concession and association regimes, which structure Tunisia's JV model and Morocco's concessions, costs are deducted according to the tax code and incentives, royalty and income tax are paid on production, and profit is realized after those statutory charges. The practical effect is that audit rights, metering, and the definition of recoverable costs are decisive in PSA systems, while royalty-tax certainty and decommissioning securities are more central in concession systems. In all cases, bonuses, customs exemptions, and import rules for equipment also shape the real economics and should be assessed alongside headline royalty and tax rates.

Understanding the state of the fossil fuel consumption in each country is important to understand the scale of dependence and extraction. Each country balances domestic production with imports in ways that shape exposure to price swings, fiscal pressure, and operational risk. The main three forms of fossil fuels are Oil, Gas and Coal which all are utilized or extracted in the countries at different capacities.



Table 1.1 Comparison of the current status, domestic availability and import of different fossil fuels in the 3 countries

	COUNTRY	FUEL	CURRENT USE (2025–2023 SNAPSHOT)	DOMESTIC AVAILABILITY	IMPORT DEPENDENCE
	Egypt	Gas	Gas is the dominant fuel for power and industry; LNG exports in 2023 swung to higher import needs in 2025–2024 as domestic output fell	Large offshore endowment led by Zohr; field output slipped starting January 2024	Rising , including pipeline imports from Israel and occasional LNG to cover shortages
	Egypt	Oil	Moderate domestic production; refined product imports still needed	Proven reserves ~3.3 bn bbl	Persistent net imports of some products
	Egypt	Coal	Limited use mainly in cement; no significant coal-fired power	Small reserves (~tens of Mt)	When used - is fully imported
	Tunisia	Gas	~47% of gas needs met by imports in 2023	Modest and declining domestic production (~1.8 bcm in 2024)	High and mainly from Algeria
	Tunisia	Oil	Small output; declining fields	Small proven reserves	High for crude/products
	Tunisia	Coal	Not used for power; no meaningful reserves	Negligible	When used - is fully imported
	Morocco	Gas	Small share of power mix growing from a low base	Gharb supplies local industry and Essaouira hosts legacy gas/condensate at Meskala and tested Sidi Moktar (Kechoula) structures. Current activity is mainly appraisal/exploration; production remains marginal.	High; relies on imports and future LNG options
	Morocco	Oil	No commercial oil production at scale	Negligible proven reserves.	Very high
	Morocco	Coal	Backbone of power mix in 2023–2024 yet entirely imported	No meaningful reserves	Very high

Taken together, the fossil fuel profile highlights where each country sits on domestic supply, import exposure, and infrastructure depth, which is the starting point for reading the energy mix.

1.3 RENEWABLE ENERGY

Second, understanding the renewable energy value chain requires an overview of understanding the strategies that all 3 countries have adopted. All three countries have adopted national strategies that explicitly aim to transform their energy systems, targeting significant renewable integration and emissions reduction by 2030 and 2035. However, the approaches, ambition levels, and implementation capacity vary significantly, shaped by political economy, resource endowment, and energy dependency.

EGYPT

According to the Global Solar Atlas, most of Egypt receives annual global horizontal irradiation (GHI) above 2,200 kWh/m²/year, particularly in Upper Egypt and the Western Desert. Wind potential is also concentrated along the Gulf of Suez and Red Sea coast, with average speeds exceeding 9 m/s, ranking among the best globally. However, current utilization is modest relative to this potential. As of 2024 Renewables (solar, wind, hydro) contribute only around 12% of Egypt's total **electricity generation** mix, bulk of investment remains skewed toward gas, driven by new discoveries, centralized megaprojects like the Benban Solar Park and the Gulf of Suez Wind Farm rather than optimizing decentralized solutions. The Egyptian government, through the NREA⁴, has allocated significant land tracts for solar and wind energy projects. According to official NREA data, several major wind and solar farms have become operational or are under development.

⁴New and Renewable Energy Authority

Table 1.2 High Level Summary of Mega Renewable Energy Projects in Egypt ⁵

NAME	TYPE	LOCATION	INFORMATION
RSWE Wind Farm	Wind 	Red Sea	Operational since December 2024, this 306 MW facility includes 84 wind turbines and was financed largely through loans from the EBRD and JBIC. Profits from its 25-year Power Purchase Agreement likely flow mostly to the consortium of shareholders (ENGIE, Toyota, Orascom). ⁶
Upper Egypt Wind Farm	Wind 	Minya	Signed in 2024, this \$15–11 billion UAE-led project will reportedly be the first large-scale wind facility outside the Red Sea zone. ⁷
Zafarana and Gulf El Zayat Wind Farms	Wind 	Red Sea	Legacy projects with capacities of 545 MW and 220 MW respectively, with varying degrees of efficiency and outdated technology. ^{8,9}
Benban Solar Park	Solar 	Aswan	One of Africa's largest, launched in 2018, this grid-connected park is fully operational with more than 50 ,40 MW solar plants but primarily investor-controlled under BOO arrangements. ^{8,10}

All four of the projects listed in Table 1.2 are backed by long-term Build-Own-Operate or BOO agreements. Although the specifics of these agreements are not readily made available, such agreements usually translate to ownership and profits remaining with private or foreign entities with agreed upon percentages in contracts, after which ownership transfers to government—despite Egypt providing land, permits, and often absorbing the environmental and social impact. Additionally, in some cases, loan repayments for infrastructure development further erode the net public benefit. While these projects do contribute to increasing generation capacity and reducing fossil fuel dependency, the question remains: Who benefits? Beyond improved grid capacity and indirect economic stimulus, many of these mega-projects reportedly offer minimal returns to local communities or the national budget during the 20–25 year concession period. Meanwhile, promising decentralized energy efforts led by local Egyptian renewable energy companies such as KarmSolar, which has pioneered private solar-powered industrial and commercial solutions, and NoorNation, a youth-founded startup providing off-grid solar technologies for irrigation—demonstrate the potential for renewables to support inclusive and resilient development models.

⁵Summary by the American Chamber of Commerce in Egypt basd on data published by the New and Renewable Energy Authority in Egypt 2024 - [Link](#)

⁶Red Sea Wind Energy - RSWE 2025 [Link](#)

Both are independent private sector initiatives, and have advanced largely through entrepreneurial innovation and private financing rather than shifts in government policy. Yet, despite their success in niche markets, decentralized PV models remain marginal in Egypt's energy vision and are not prioritized in national strategy.

TUNISIA

Tunisia benefits from excellent solar radiation, with most inland and southern regions receiving 2,300–2,000 kWh/m²/year, and moderate wind speeds in the northern and central areas. The government aims to harness this with a goal of 30% renewables in electricity generation by 2030. Similar to Egypt, decentralized solar PV remains a strong untapped opportunity, especially for agriculture, small industry, and rural electrification. Tunisia's potential to expand community energy, solar cooperatives, and local employment in the renewables sector is high—but requires stronger governance reforms and access to climate finance. Tunisia has long been recognized for its considerable solar and wind energy potential, particularly in its southern and central interior regions, where solar irradiance levels rank among the highest in North Africa. The country's Plan Solaire Tunisien (PST), launched as early as 2009 and updated multiple times, outlines ambitions to reach 30% renewable energy in the electricity mix by 2030. However, the current share remains below 5% as of 2024, signaling a substantial implementation gap.¹²



⁷African Energy Council 2024 [Link](#)

⁸American Chamber of Commerce in Egypt [Link](#)

⁹JICA - Gulf of Zayt Wind Power Project - [Link](#)

¹⁰Nubian Sun - World Bank Report [Link](#)

¹¹North Africa Policies and Finance for Renewable Energy and Deployment - IRENA 2023 [link](#)

¹²IEA 2022 [link](#) - Tunisian Ministry of Energy 2024 Press Release STEG

Table 1.3 High Level Summary of Mega Renewable Energy Projects in Tunisia

NAME	TYPE	LOCATION	INFORMATION
Sidi Daoud Wind Farm	Wind 	Nabeul	Tunisia's first large wind site with 45–54 MW, and operational since 2000. ^{13,13}
Bizerte Wind (Metline & Kchabta)	Wind 	Bizerte	Twin sites brought online 2016–2012 with 190 MW combined, and is operated by Tunisian Electricity and Gas Company. ^{12,14}
Tozeur I & II	Solar 	Tozeur	First utility PV plants; in Tunisia each ~10 MW. Tozeur I commissioned 2019; Tozeur II connected in 2022. ^{12,15}
Kairouan Solar IPP	Solar 	Kairouan	100 MW IPP under concession; financing approved by AfDB/IFC, PPA/guarantees in place and construction/preparation began as of 2024. ^{12,16,17}

Tunisia's first utility-scale solar plant was Tozeur I (10 MW) which was financed by KfW and entered operation in 2019/2020 and the Tozeur II (10 MW) extension was inaugurated in March 2022.. Separately, ENI/ETAP's 10 MW Tataouine PV plant is already grid-connected. On the other hand, TuNur is reportedly pursuing a multi-GW Sahara-to-Europe export scheme (CSP/PV hybrid) with a dedicated link to Italy/Malta. This is separate from the Tataouine concession and remains in the development/permitting phase. A growing number of foreign investments, including from Gulf and European entities, are geared toward producing electricity for green hydrogen production or for direct export to Europe, as seen in proposals like the Elmed interconnector project with Italy. These raise critical questions about energy sovereignty and domestic benefit. Wind energy development has similarly remained modest. Projects such as Sidi Daoud (54 MW) and Korbous are operational, but new large-scale additions have been minimal over the last decade. The technical potential for wind energy in Tunisia, especially in coastal areas and elevated interior plateaus, remains largely untapped.

The structural disconnect between ambition and institutional capacity is a challenge in Tunisia. While Tunisia has made notable legal and policy progress, the operationalization of these frameworks is undermined by administrative complexity, financial barriers, and limited technical capacity at local and subnational levels. The report further emphasizes that community-level ownership and benefit-sharing mechanisms are almost entirely absent from national planning (which is a recurring theme regionally although there are numerous remote communities in the region). While IPP frameworks exist, they are often geared toward larger actors with the financial and legal resources to navigate slow-moving regulatory channels. This reinforces inequality in access to renewable energy benefits and limits public buy-in for the energy transition.²¹

¹³ Friedrich-Ebert-Stiftung (2021) [Link](#)

¹⁴ National Agency for Energy Conservation Tunisia [Link](#)

¹⁵ Fichtner Tozeur Plant [Link](#)

¹⁶ AMEA Power (2019) [Link](#)

¹⁷ World Bank (2024) [Link](#)

¹⁸ KfW 2022 [Link](#)

¹⁹ ENI 2020 [Link](#)

²⁰ Although it is still reportedly facing significant challenges in preconstruction and has stalled. IRENA 2023 [link](#) Scatec 2019 [link](#) KfW 2022 [link](#) TuNur 2022 [link](#)

²¹ The IRENA Renewable Readiness Assessment (2021) – Importantly, IRENA points to a missed opportunity in leveraging Tunisia's decentralized governance structure, especially the role of municipalities and regional councils, which remain underutilized in planning and implementation.



MOROCCO

Morocco's energy governance stands out in the region for its strategic long-term planning, centralized coordination, and early commitment to renewable energy integration. The institutional backbone is Morocco Agency for Sustainable Energy (MASEN), established in 2010 and empowered to lead the development of large-scale renewable energy projects. MASEN operates in close coordination with the Ministry of Energy Transition and Sustainable Development and ONEE (Office National de l'Electricité et de l'Eau Potable). Additionally, the National Agency for the Development of Renewable Energy and Energy Efficiency (ADEREE) supports decentralized energy efforts, energy audits, and awareness campaigns. These efforts have made renewable energy expansion in Morocco grow at a visible pace. Morocco's natural endowments are among the most favorable in North Africa. It possesses high GHI across the south and southeast making it an ideal hub for solar PV and CSP technologies. The NOOR Ouarzazate Solar Complex, one of the largest in the world, is a 580 MW flagship project that combines CSP and PV technologies and has become emblematic of Morocco's international energy diplomacy. Despite its status as a flagship renewable project, the NOOR Ouarzazate Solar Complex has been criticized for its high costs and water consumption in an arid region with potential negative impacts on local community access to water resources.^{22,23,24}

Table 1.4 High Level Summary of Mega Renewable Energy Projects in Morocco

NAME	TYPE	LOCATION	INFORMATION
NOOR Ouarzazate Complex (I–IV)	Solar CSP 	Ouarzazate	Flagship multi-phase complex totaling ~580 MW and is CSP with storage plus some elements are PV. It is currently in operational stages ²⁵
Tarfaya Wind Farm	Wind 	Laâyoune-Sakia El Hamra	301 MW onshore wind, operational since 2014 (Nareva/Engie JV). ²⁶
Aftissat Wind (Phases I–II)	Wind 	Boujdour	It is currently being expanded to have capacity of 400 to 416 MW and is focused on industrial energy supply ^{27,28}

NAME	TYPE	LOCATION	INFORMATION
NOOR PV I – Laayoune	Solar 	Laayoune	80–85 MW PV plant under the NOOR PV I program (ACWA Power/MASEN). ²⁹
NOOR PV I – Boujdour	Solar 	Boujdour	20 MW PV plant under NOOR PV I (ACWA Power/MASEN) ²¹ .

Morocco's wind power capacity is also among the highest in Africa. Strong wind corridors along the Atlantic coast, particularly in Tarfaya, Essaouira, Laâyoune, and Tangier, have led to the development of several high-performing wind farms. A recent 2025 study shows that Morocco has already 1.28 GW of installed wind capacity and continues to develop additional capacity through public-private partnerships.³⁰ Projects like Tarfaya Wind Farm (300 MW) and Akhfenir (200 MW) are already operational and integrated into the national grid.

Morocco's renewable energy policy is structured under Law 09-13, enacted in 2010 and amended in 2015. It opened the electricity market to private renewable energy producers for both self-consumption and sale to high-voltage consumers (excluding residential-level supply). However, the law maintained a monopoly over transmission and distribution infrastructure, which limits the expansion of small and community-scale actors. Despite these limitations, the legislative framework enabled Morocco to attract significant foreign and private sector investments in both solar and wind energy. While Morocco has made tremendous progress in expanding its renewable energy portfolio, a critical gap remains in distributive justice and domestic benefit sharing. The vast majority of mega-projects are developed under public-private BOT or PPP models, with long-term PPAs ensuring secure returns to foreign and private investors. Research suggests local communities where renewable energy projects are sited express critiques of non-inclusive planning and long-term benefit sharing beyond short-term employment.³¹

²² Reuters 2024 - VOA 2024

²³ Hamouchene (2016) [Link](#)

²⁴ Laaroussi et al., (2023) [Link](#)

²⁵ World Bank Report [Link](#)

²⁶ Nareva Projects Tarfaya [Link](#)

²⁷ Nareva Projects Aftissat 1 [Link](#)

²⁸ Nareva Projects Aftissat 2 [Link](#)

²⁹ ACWA Power Noor PV1 (3 PV Projects) [Link](#)

³⁰ Hafdaoui et al., 2025 [Link](#)

³¹ Haddad et al., 2022 [Link](#)

1.4 ENERGY MIX OF EACH COUNTRY

*This section utilizes data by the **International Energy Agency** and the World Bank Group public **datasets**. For cross-country comparability, all “energy mix” and “import dependence” figures in this report use the IEA definition of Total Primary Energy Supply (TPES). Shares are expressed as a percentage of TPES and volumes in thousand tonnes of oil equivalent. Electricity data use gross generation in terawatt-hours and generation shares, not installed capacity. “Energy import dependence” is calculated as net imports divided by TPES.*

Egypt’s gas dominance, Tunisia’s import dependence, and Morocco’s coal-heavy dispatch are not only policy preferences; they reflect inherited infrastructure and contract incentives from the concession/PSA era, then reinforced by 1990s–2010s liberalization packages and export offtakes. The country snapshots below should therefore be read as constrained outcomes, not clean expressions of state intent.

Colonial era concessions built energy systems around oil and gas. Since the 1990s, IMF supported liberalization and power contracts such as build own operate (BOO) and public private partnerships (PPP) have reinforced this dependence by favoring fossil infrastructure over alternatives. In Egypt, the 2016 program accelerated subsidy cuts and cost recovery rules, keeping the power sector tied to gas while new import deals with Israel locked in supply through the EMG pipeline, first via the 2018 Dolphin agreement of about 64 billion cubic meters over ten years and later an expanded Leviathan deal that aims to nearly triple volumes by 2029^{32,33}. Periodic LNG purchases to cover shortfalls keep prices and schedules set abroad, making gas reliance appear inevitable even as renewables grow.

³² Egypt Oil and Gas (2018) [Link](#)

³³ Reuters (2025) [Link](#)



Egypt presents a complex picture. Historically a net energy exporter, the country maintained an export surplus for most of the early 2000s. However, following the 2011 revolution and subsequent political and economic instability, Egypt's energy balance shifted sharply, becoming a net importer. This period saw a decline in local production, particularly in gas output, and growing domestic demand. Reforms initiated in the mid-2010s, including price liberalization, subsidy reduction, and upstream investment, led to a temporary recovery. By 2019–2020, Egypt returned to net exporter status, buoyed by new gas discoveries like the Zohr field by ENI. Yet this was short-lived. From 2021 onwards, another steep decline occurred as domestic demand surged, production plateaued, and imports once again overtook exports heading into 2024. Today, gas makes up around 57% of Egypt's domestic energy production, and when applying the IEA's Total Energy Supply (TES) methodology, oil and gas combined account for nearly **93%** of Egypt's total energy supply, underlining a profound fossil fuel reliance. This gas-heavy turn and LNG build-out mirror PSA cost-recovery incentives that privilege rapid gas monetization over demand-side measures or distributed renewables.



In contrast, Tunisia and Morocco have remained firmly energy import-dependent, with little structural change over the past two decades. Tunisia, once relatively self-sufficient, now imports over 60% of its energy needs³⁴, driven by declining domestic oil and gas production and an underdeveloped renewables sector. Reliance on TransMed-centred gas and concession-shaped system design, later paired with tenders geared to large foreign developers, has deepened import dependence despite strong solar potential. The country's energy mix remains highly fossil-dependent, with gas accounting for over 95% of electricity generation, much of it imported.

³⁴ Ministry of Industry, Mines and Energy (Tunisia). Energy Situation as of End of December 2024 [Link](#)

The TransMed pipeline to Italy crosses Tunisia, with the state reportedly taking royalties in kind and purchasing additional volumes from Sonatrach.³⁵ That arrangement, combined with IPP/BOO procurement templates designed around gas-fired combined-cycle plants, cemented a power mix that is overwhelmingly gas-based while renewables remained marginal ($\approx 3\%$ of generation in 2022 IEA). In practice, Tunisia's energy "choice" has been a path-dependent response to historic pipeline routing and contract structures, leaving the country exposed to Algerian supply terms and import price swings.³⁶

Morocco presents an even more stark dependency profile. With minimal domestic oil and gas reserves, over 90% of its primary energy consumption is met through imports. While the country has made significant strides in renewable electricity generation, wind and solar now provide around 20% of the power mix, fossil fuels (notably imported coal and oil) still dominate total energy use. The country's strategy of becoming a renewable export hub has not reduced its reliance on imported fuels for domestic consumption. Downstream fuel liberalization and refinery closures kept coal and imported fuels as the dispatchable core even as wind/solar grew, an example of market reform entrenching fossil backup.³⁷

Under French/Spanish protectorates the domestic hydrocarbon base was thin, and the 1990s liberalization phase locked in imported coal IPPs and Algerian transit gas as the dispatchable core. The Jorf Lasfar IPP,³⁸ set long-term coal commitments that still dominate dispatch although Morocco has disclosed in its most recent Nationally Determined Contributions (NDCs) that it is committed to phase out coal power by 2040.³⁹ In gas, Morocco relied on the Maghreb–Europe pipeline for transit gas until Algeria terminated flows in 2021, after which Morocco pivoted to reverse-flow gas via Spain and to LNG-linked arrangements and again, externalizing fuel control.⁴⁰ These long PPAs and cross-border gas dependencies entrench fossil lock-ins even as wind/solar rise for power exports.

³⁵ IEMed (2011) [Link](#)

³⁶ Country Commercial Guidelines (Energy) by USA International Trade Administration (2022) - [Link](#)

³⁷ Energy policy in Morocco: Analysis of the national energy strategy's impact on sustainable energy supply and transformation - 2024 [Link](#)

³⁸ Concessioned in the mid-1990s and later acquired by TAQA

³⁹ Morocco NDC 3.0 [Link](#) (30 September 2025) where the country explicitly refers to the phase out of Coal while subject to international support (largely referring to financing)

⁴⁰ Global Energy Monitor - Jorf Lasfar Power Station [Link](#)



To enable direct comparison, we normalize the 2022 data across all three countries. On a system-wide basis, Total Energy Supply is utilized (TES), and it's clear that fossil fuels dominate: Egypt 94%, Tunisia 88%, Morocco 91% (with coal alone $\approx 30\%$ in Morocco). In the power sector, Egypt and Tunisia are gas-locked ($>90\%$ fossil, renewables $\leq 10\%$), while Morocco is coal-locked ($\approx 72\%$ fossil, mostly coal, with $\sim 28\%$ renewables including hydro). The uniform reference year confirms that, despite different profiles, all three countries remain overwhelmingly dependent on fossil fuels.

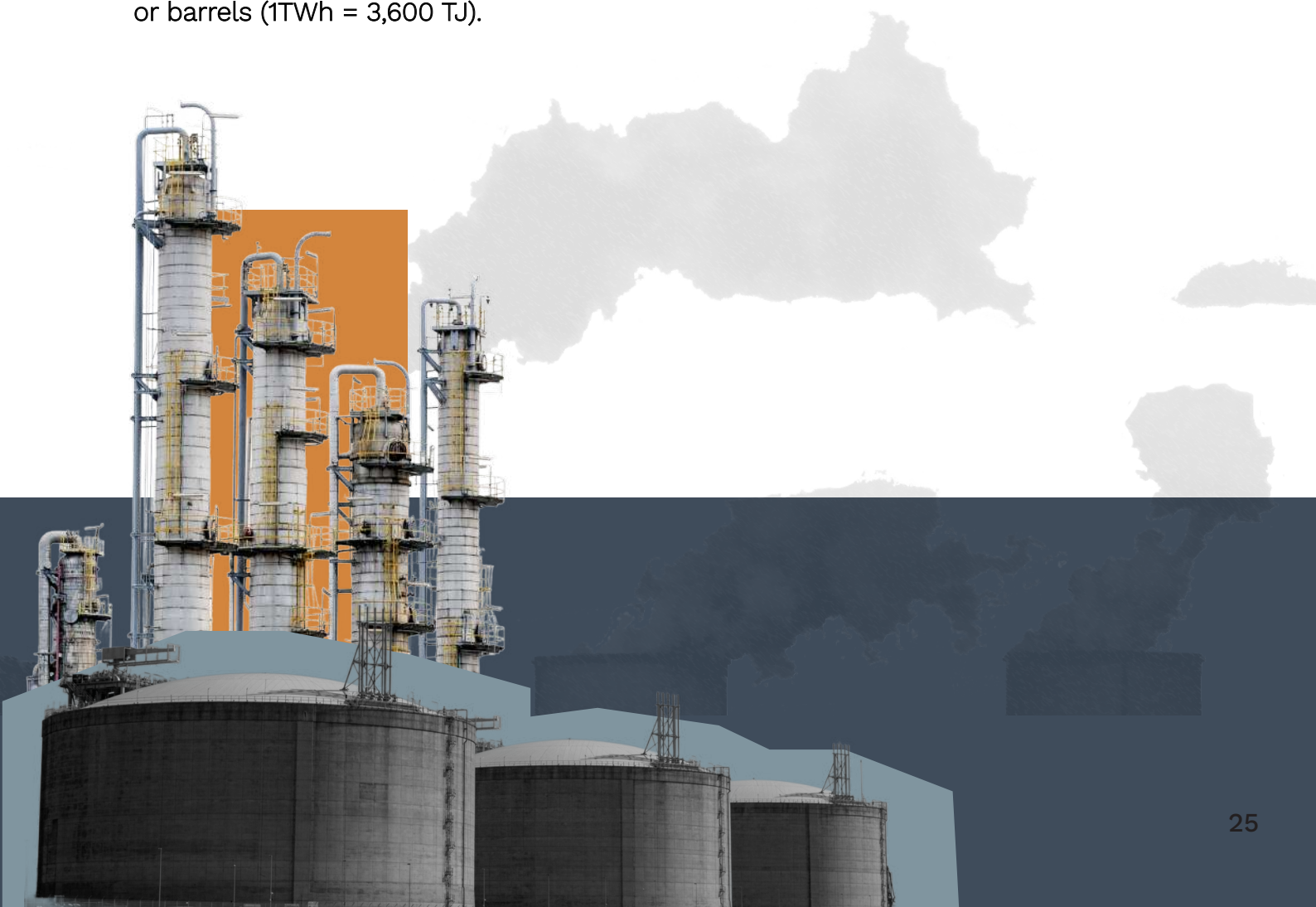
The following table provides a direct comparison of all 3 countries.

Table 1.5 Comparison of the Energy Mix by Total Primary Energy Supply (TPES), 2022.

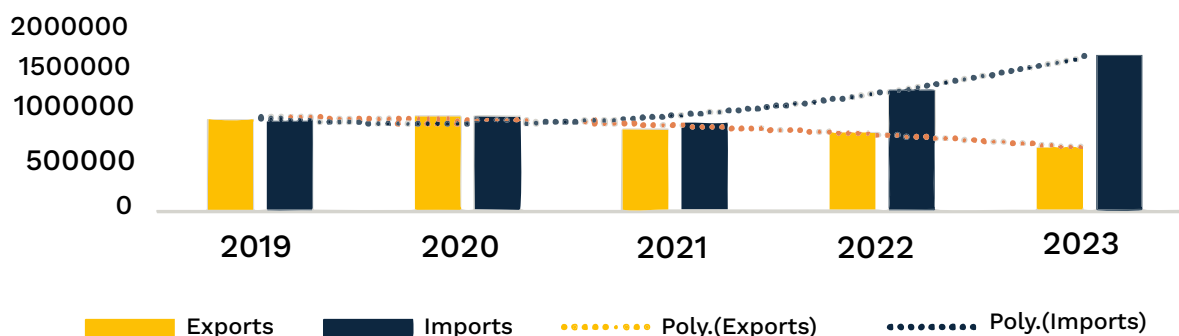
INDICATOR		EGYPT 	TUNISIA 	MOROCCO 
	Fossil fuels in Total Energy Supply - TPES (%)	94 %	88 %	91 %
	Oil + gas share of TPES (%)	94 %	88 %	61 %
	Coal share of TPES (%)	0 %	0 %	30 %
	Electricity generation: fossil share (%)	90 % Gas Dominated	97 % Gas Dominated	72 % Coal Dominated
	Electricity generation: renewables share	10 %	3 %	28 %

Source: IEA World Energy Balances (2022 edition, latest comparable year); [NREA](#) Egypt, [ANME](#) Tunisia and [AMEE](#) Morocco.

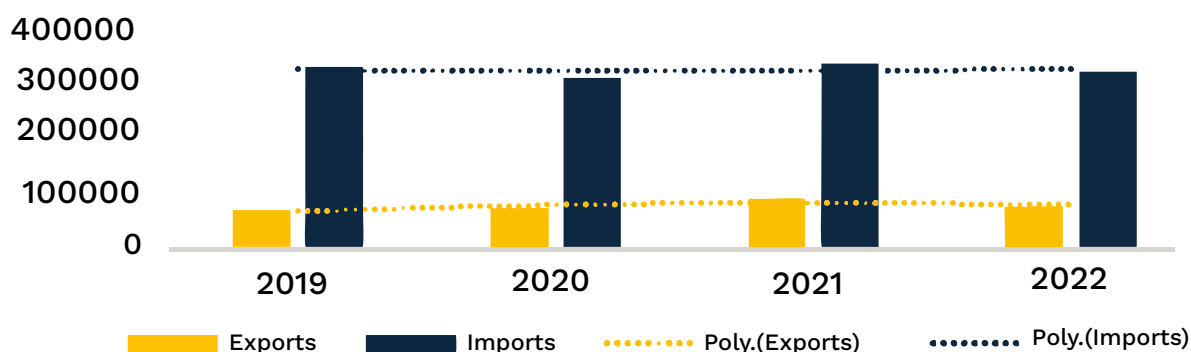
This energy trade landscape reveals a fragile sovereignty baseline across all three countries. While Egypt's shifts tell a story of volatility and structural inefficiency, Tunisia and Morocco remain locked in a fixed position of external dependency. With limited local control over production, pricing, or strategic direction, all three countries are vulnerable to global energy market shocks, currency fluctuations, and foreign policy pressures. While all three countries face energy dependency challenges, they are each pursuing distinct strategic approaches to manage the transition. Egypt is positioning itself as a regional energy hub by investing in gas extraction, LNG infrastructure, and green hydrogen for export, while continuing to rely heavily on fossil fuels for domestic use. Morocco, in contrast, has made renewable energy a central pillar of its strategy, aiming to become a green electricity and hydrogen exporter to Europe, even as it remains structurally dependent on imported coal and oil for domestic consumption. Unlike Egypt and Morocco, Tunisia has not secured a significant position in regional or global energy markets, nor developed a robust domestic transition plan. Figure 2.1 showcases the Trade in Energy in each country, with the unit being "Trade in energy (TJ)" as the amount of energy imported/exported across borders, expressed as energy content, not as tonnes or barrels (1TWh = 3,600 TJ).



EGYPT TRADE IN ENERGY (TJs)



TUNISIA TRADE IN ENERGY (TJs)



MOROCCO TRADE IN ENERGY (TJs)

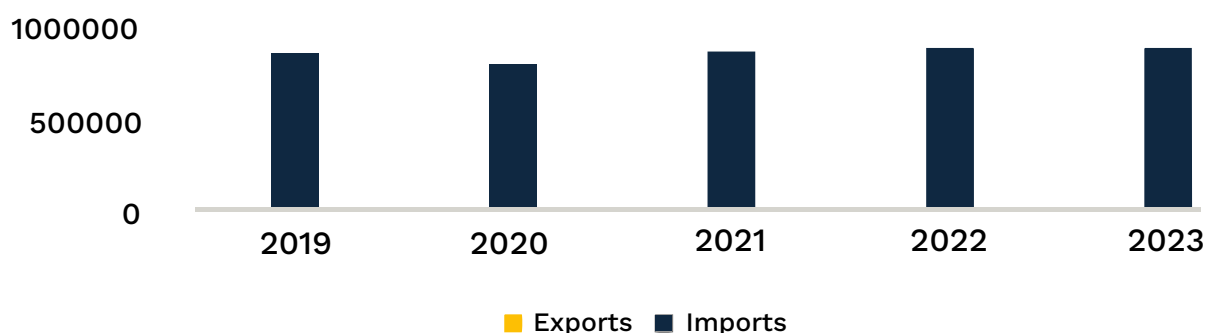


Figure 1.1 Change in energy trade levels (expressed in Terajoules (TJs)) in Egypt, Tunisia and Morocco (IEA,2024)

The domestic energy production is starkly different between Egypt, Tunisia, and Morocco. Egypt produces around 3.6 million terajoules (TJ) annually, more than 15 times Tunisia's (219,000 TJ) and over 35 times Morocco's (101,000 TJ), underscoring its dominant role as a regional producer (IEA, 2023). By contrast, Tunisia and Morocco remain largely import-oriented nations, though both are advancing renewable energy development at different paces of transition.

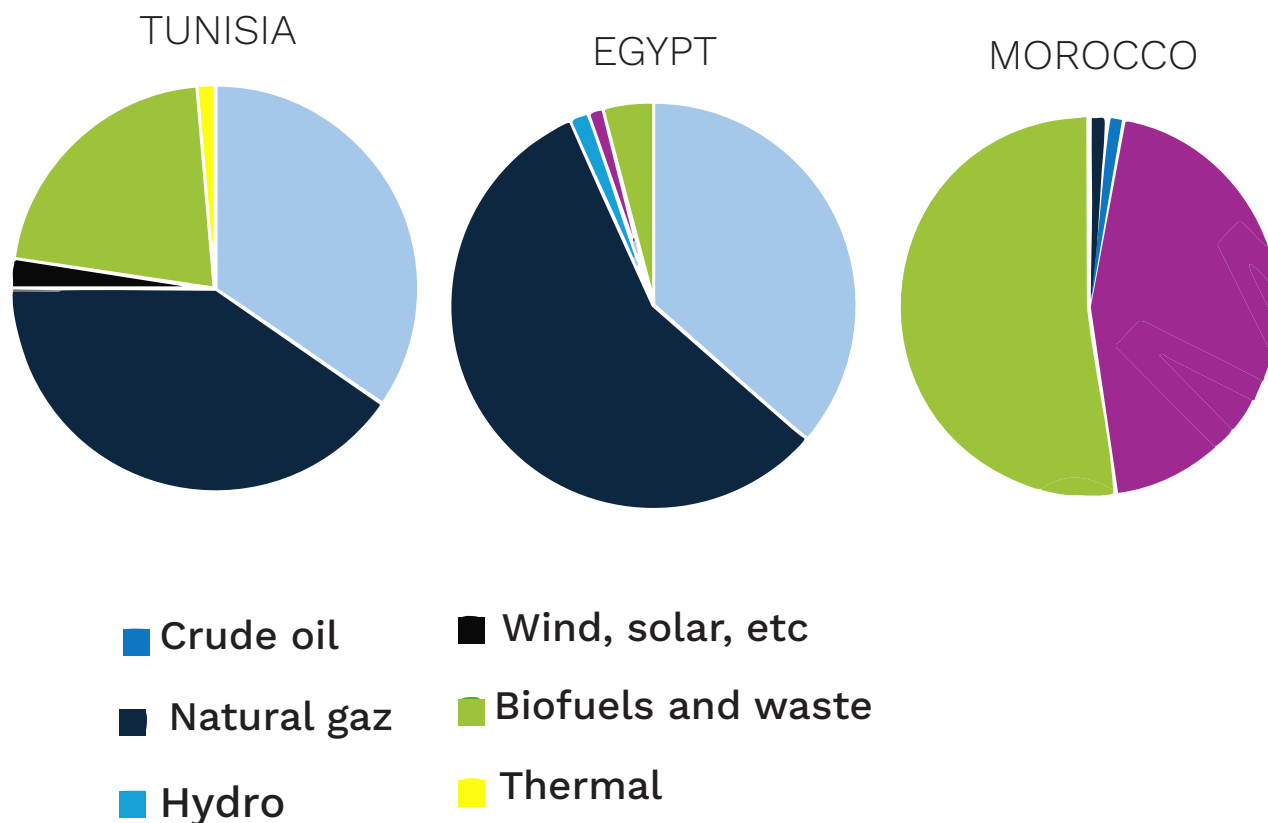


Figure 1.2 Total Domestic Energy Production of each Country and the respective production energy mix (IEA, 2024)

The pie charts represent the domestic primary energy production mix for Egypt, Tunisia, and Morocco, revealing notable differences in the composition and direction of each country's energy system. In Egypt, domestic production is overwhelmingly dominated by gas, followed by crude oil, with only marginal contributions from hydro, renewables, and biofuels. This reflects Egypt's status as a major fossil fuel producer, particularly in gas, which forms the backbone of its domestic supply. Tunisia's production is split more evenly between gas and crude oil, with a slightly more visible role for biofuels and waste, while wind, solar, and hydro remain negligible, highlighting the limited diversification of its domestic energy sources.

Morocco has minimal domestic fossil output; what it produces at home is mainly biofuels and waste alongside hydro, wind, and solar. In the wider energy balance, however, imported coal and petroleum still dominate, even as renewables grow.

Given Morocco and Tunisia's high levels of energy imports, especially of fossil fuels, these charts underscore how domestic energy production is limited in both volume and diversification. Egypt stands out as a country with a sizable and fossil-heavy domestic energy production base, while Tunisia and Morocco's domestic output remains narrow, and structurally disconnected from their broader energy consumption needs. However, this also means that an increase in renewable energy provides a clearer pathway for both countries to increase their domestic control and sovereignty on their respective energy mix.

1.5 THE FALSE SOLUTIONS WE MUST AVOID IN NORTH AFRICA'S ENERGY TRANSITION

With clarity over renewable and non renewable value chains, it is important to clarify what must be avoided before we understand the state of Energy Sovereignty and to recommend a pathway for Energy Transition for Egypt, Tunisia and Morocco.

In North Africa, false solutions take three main forms: false technologies, false narratives, and false policies.



False Technologies such as Carbon Capture and Storage (CCS), blue hydrogen, and waste-to-energy incineration are promoted as innovative, yet they extend fossil fuel dependency, externalize risks, or create new environmental harms. For instance, Shell and ENI have referenced CCS in Egypt, despite its cost and inefficacy.

False Narratives allow the fossil fuel industry IOCs and governments to rebrand old practices under the guise of sustainability. Companies now call themselves “energy companies” while expanding fossil operations; sponsor youth innovation competitions for PR cover; or overstate job creation promises in hydrogen mega-projects that would rely on building skill development of locals instead of potentially relying on foreign labor and imported technologies,^{41,42} Most strikingly, the framing of exporting “clean energy to Europe” obscures the reality that domestic populations remain underserved while resources are directed abroad.

⁴¹ African Energy Chamber (2025) [Link](#)

⁴² Hafner et al., (2023) [Link](#)



1.6 False Narratives Defined

NARRATIVE	DESCRIPTION	RELEVANCE TO NORTH AFRICA
<i>“We are now Energy Companies”</i>	IOCs rebrand as “energy companies” while expanding fossil fuel investments.	This is commonly done in convenings on energy in North Africa as with other regions. Reference is made to EGPES becoming Egypt Energy Show 2025 and how companies brand themselves
<i>Youth Engagement & STEM Promotion</i>	Sponsoring student innovation contests or incubators to build “sustainable”	Several IOCs have continued to have “sustainability and environmental” education initiatives and prizes, while continuing fossil fuel operations.
<i>Green Jobs Promises</i>	Renewable projects typically create more jobs than fossil fuels. However it is important to avoid inflated counts that treat short-term construction roles as permanent and that assume local manufacturing which may not yet exist.	Tunisia’s green hydrogen strategy claims thousands of jobs without clarity on local hiring or labor conditions.
<i>Exporting Clean Energy to Europe</i>	Portrayed as a regional win, but energy is extracted from local resources for foreign benefit.	Egypt and Tunisia export-focused hydrogen and solar projects often bypass domestic needs.

False Policies such as Build-Own-Operate (BOO) contracts and Public-Private Partnerships (PPPs) deepen fiscal dependency and don't actually support a fair and just energy transition. Carbon markets and offsets, being explored in Morocco and Tunisia, risk turning land and ecosystems into commodities for external polluters (to continue polluting), reinforcing a form of “green colonialism”.



Table 1.7 False Policies

POLICY/ MECHANISM	DESCRIPTION	RELEVANCE TO NORTH AFRICA
<i>Build-Own-Operate (BOO) Contracts</i>	Private companies own energy assets then sell energy to governments under long-term Public Private Agreements and finally, the Governments carry debt. This leads to the public seeing few returns.	Egypt's Benban solar PV plants and the Ras Ghareb wind farm are build-own-operate selling power to EETC under 20–25-year PPAs; under Investment Law No. 72/2017, foreign investors may repatriate profits ^{44,45,46} . BOO projects do not automatically transfer to the state at term-end, so operation and maintenance obligations lie with the project company during the contract term; post-term responsibilities depend on the specific PPA, land-use and decommissioning clauses. ⁴⁷
<i>Public-Private Partnerships (PPPs)</i>	Structured to offload public risk and ensure investor profit, not necessarily to deliver sustainable services.	Tunisia, Egypt and Morocco all use PPPs in energy. Rarely include clauses for community reinvestment or social protection.
<i>Carbon Markets & Offsets</i>	Allow Polluters to “offset” emissions by funding questionable or extractive mitigation projects in the South.	Morocco and Tunisia exploring carbon trading. Risk of land-grabbing for carbon sinks or monoculture plantations.

The narrative of “transition” is increasingly used to justify continuity: gas rebranded as a “bridge fuel,” hydrogen projects pitched as regional wins while serving European markets, and corporate rebranding exercises that portray IOCs as climate champions. Some of these strategies can be understood as **false solutions**: measures presented as addressing climate and energy crises but which, in practice, entrench structural inequality, delay real decarbonization, and shift burdens onto vulnerable populations.

44 Egyptian General Authority for Investment and Free Zones (2017) [Link](#)

45 ACWA Power Benban Egypt [Link](#)

46 Orascom Ras Ghareb Wind Farm Egypt (2025) [Link](#)

47 ACWA Power - [Link](#) / Law 72/2017 [Link](#) Engie Ras Ghareb Wind Farm 2019 [Link](#)



SECTION 2.

UNDERSTANDING ENERGY SOVEREIGNTY IN NORTH AFRICA



2.1 ENERGY SOVEREIGNTY: CURRENT AND FUTURE

In North Africa and the wider MENA region, energy sovereignty is not achieved simply by producing more energy locally or reducing imports. It is about who controls, owns, and benefits from energy resources, and whether these resources are governed in the public interest rather than by international and foreign corporations or governments. Historically, the region's energy wealth has been shaped by colonial concessions, and extractivist contracts.

Achieving energy sovereignty in North Africa requires political resilience and the removal of external conditionalities imposed by lenders, foreign investors, and geopolitical pressures. Without this shift, countries such as Egypt remain locked into short-term policy choices shaped by IMF-led economic reforms rather than long-term strategies for energy independence. Over the past decade, the region has increasingly been positioned as Europe's future "green resource." All three countries have considered the IMF in energy-related programs (but not all translated), with Egypt receiving the largest packages to stabilize electricity production after the 2023 summer crisis. However, weak domestic investment and externally driven financing models risk directing renewable energy development toward export markets rather than domestic needs.

To counter this, governments must adopt policies that prevent land grabs for large-scale projects, ensure renewable energy jobs are secure and fairly paid, and channel revenues into social services, infrastructure, and local economies. Projects should be adapted to North African environmental realities, developed with meaningful community consent and benefit sharing, and structured to prioritize domestic offtake and local ownership, avoiding export first or concession style arrangements that reproduce extractive or neo colonial patterns. This approach reframes energy transition as part of a broader sovereignty agenda, challenging the dominance of international financial institutions that prioritize privatization, and instead advancing public financing and regional cooperation toward an independent North African renewable energy bloc.

To assess the state of energy sovereignty in North Africa, this report develops an adapted version of the European Council on Foreign Relations' Energy Sovereignty Index, recalibrated to reflect the region's distinct historical and structural conditions. The revised framework therefore integrates justice, social and environmental integrity for local populations, equitable access to energy, and policy autonomy, emphasizing the ability of states to make independent choices free from external conditionalities -

an indicator of energy sovereignty. The assessment utilizes several country level strategies that are highlighted in different published strategies (or supporting documents to published strategies) and this is highlighted in the following matrix:

Table 2.1 National Strategies and Action Plans against Energy Sovereignty Index Dimensions

ASPECTS	EGYPT 	TUNISIA 	MOROCCO 
 Renewable (Energy Cleaness)	Utility scale RE via BOO tenders such as Benban while Gas retained as baseload and RE being export oriented.	Solar Plan tenders for PV/wind. Renewables are still marginal in dispatch and ELMED (tunisia italy interconnector project) to integrate RE/export	MASEN/ONEE utility scale for RE. Coal retained for current adequacy and Hydrogen/renewables being export oriented
 Independence & Resource Control	Upstream under PSAs (EGPC/EGAS with IOCs); external gas via EMG and LNG swing undermines autonomy; grid/dispatch public.	TransMed-anchored gas system (royalties in kind + purchases from Sonatrach); limited upstream; foreign-developed IPPs.	Long PPA coal IPPs (Jorf Lasfar, Safi); gas via GME reverse flows/LNG; public leverage on RE through MASEN/ONEE.
 Accessibility & Justice	Near-universal access; lifeline/social tariffs post-IMF reforms; DG/net-metering evolving; outage risk tied to gas supply. However, access to renewables is still very limited.	Conceptually High access; ANME energy efficiency programs for households/SMEs and tariff adjustments under fiscal stress but community energy nascent.	Universal access; Programme d'Électrification Rurale Global (PERG) legacy; DG opening; coal externalities concentrated near hubs.
 Efficiency (production and grid-use)	Siemens CCGT program (fleet efficiency); T&D upgrades; sector EE strategy 2035–2022 (MOP).	Grid reinforcement/loss reduction; ANME efficiency programs (audits, standards, lighting).	AMEE leads cross-sector EE; Spain/Portugal interconnections improve dispatch; grid codes updated for RE.
 Policy Autonomy	IMF-era reforms + BOO/PPP frameworks; export-oriented H ₂ /LNG MoUs shape choices.	Gas dependence on Algeria + donor-backed reforms constrain room to maneuver; implementation gated by external finance.	Import dependency (coal, gas) and EU-linked standards/markets influence choices
 Strategies	Integrated/Sustainable Energy Strategy to 2035 (ISES); National Low-Carbon Hydrogen Strategy (2024). Egypt Petroleum Energy Efficiency Strategy (2035)	Tunisian Solar Plan (2015) Energy Strategy Horizon (2035)	National Energy Strategy (2009) Stratégie Bas Carbone à Long Terme Maroc 2050 (2021) Link National Energy Efficiency Strategy (2030)

2.2 ENERGY SOVEREIGNTY: CURRENT AND FUTURE

This sub section attempts to assess the Energy Sovereignty in each of the three countries following the methodology highlighted in the Introduction of this report, and utilizes four dimensions to make this assessment that are provided in Table 2.1. The score attained from the assessment should have as a backdrop the colonial concessions and their modern analogues, as that explains the persistently low “Resource Control & Independence” across all three cases.

Table 2.1 National Strategies and Action Plans against Energy Sovereignty Index Dimensions

ENERGY DIMENSION	DEFINITION	INDICATORS
Renewable	Share of low-carbon energy in the domestic mix and alignment with national and global climate goals.	-Percentage of renewables in total energy consumption (domestic use only, not just installed capacity) -Carbon intensity of the national energy mix (CO₂/kWh) -Implementation of national decarbonization strategies vs. targets met -Dependence on fossil fuel subsidies or expansion plans -Presence of long-term fossil lock-ins (e.g. gas export infrastructure)
Independence & Resource Control	Degree of domestic ownership and control over energy resources, technology and revenues	-Percentage of energy production controlled by state or domestic firms⁴⁸ -Share of rents/revenues retained in-country vs. repatriated abroad -Dependency on International Oil Companies (IOCs) for extraction and project operation -Extent of foreign financing and technology dependence in renewables and hydrogen -Share of energy dedicated to domestic consumption vs. export obligations
Energy Accessibility & Justice	Efficiency of energy production, transmission, and consumption with focus on equitable access and affordability for citizens.	-Electrification rate (urban and rural coverage) -Average household energy costs as percentage of income (affordability) -Frequency and duration of power outages or supply disruptions -Existence of community benefit-sharing mechanisms or ownership models -Incidents of displacement, pollution, land use conflict, or water stress caused by energy infrastructure
Policy Autonomy	Strength and independence of national energy vision, ability to set policy free from external market or foreign pressures	-Level of Influence of International Financial Institutions (e.g. IMF reforms, subsidy removals) -Existence of externally driven strategies -Share of energy sector investments tied to foreign conditionalities or arbitration clauses -Evidence of independent, nationally led long-term energy planning -Ability to redirect production to meet local needs even under export contracts

⁴⁸To the extent possible, separation between state owned and privately owned domestic firms (linked to IOCs) was analyzed based on publicly available data.

For each dimension, there are 5 indicators, with each scored between 2-0, where:

0	Very weak performance Sovereignty deficit
1	Partial performance Mixed sovereignty
2	Strong sovereignty Independent control

Based on the above methodology, the index assessment provided an approximated insight into the **current state of energy sovereignty**. Additionally, to foresee the **future state of energy sovereignty**, a brief overview of national strategies for energy per country is provided.

EGYPT

Table 2.3. Scoring of Egypt’s Energy Sovereignty against the Energy Sovereignty Assessment Dimensions

DIMENSION	SCORE	JUSTIFICATION	
EGYPT			
Energy Cleanness 	1	Renewable Share	Currently <15% of power generation (NREA, 2024)
	1	Carbon intensity	Heavy reliance on gas
	1	Decarbonization	Ambitious targets (42% by 2030) but recent rollback to 40% by 2040 (NREA, 2024)
	1	Fossil lock-ins	New LNG export terminals and new long-term gas contracts
	1	Subsidies	Gas and oil subsidies remain significant
	5/10		

Resource Control & Independence 	1	Domestic control	EGPC nominally controls fields, however IOC contractors usually handle higher shares of
	0	Rent capture	High IOC cost recovery reduces state take
	1	IOC dependence	Foreign tech and expertise essential for offshore and gas extraction
	1	Foreign financing	Hydrogen and renewable projects largely funded by EU partners
	1	Domestic vs export	LNG and hydrogen projects prioritize exports over domestic needs
	4/10		
Energy Accessibility & Justice 	2	Electrification	Near universal
	1	Affordability	Rising tariffs under IMF reforms
	0	Reliability	Rolling blackouts due to fuel shortages
	1	Community benefits	Limited revenue-sharing or local equity in projects
	1	Environmental & Social impacts	Water-intensive new hydrogen and energy projects, and ongoing impacts from fossil fuel extraction near coastal communities
	5/10		
Policy Autonomy 	1	External influence	IMF dictates subsidy reforms
	1	Export Strategy	EU hydrogen strategy heavily shapes planned exports
	0	Foreign arbitration	Clauses in PSCs reduce sovereign leverage
	1	Independent planning	National energy plan frequently adjusted under foreign pressure or market changes
	1	Domestic priority	Export-first LNG and hydrogen deals
	4/10		
AVERAGE SCORE	4.5		

Egypt's energy sovereignty remains fundamentally constrained despite its resource wealth and decades of oil and gas production. Although often portrayed as energy-rich and a potential “regional energy hub,” the structure of its sector reflects enduring patterns of external control. As noted in Section 1.2, royalties may be diverted to cover corporate income taxes if agreed in the concession agreement, while bonuses provide only short-term financial gain.⁴⁹ These mechanisms echo the colonial concession model: Egypt supplies resources but has little power over pricing, export priorities, or technology ownership.

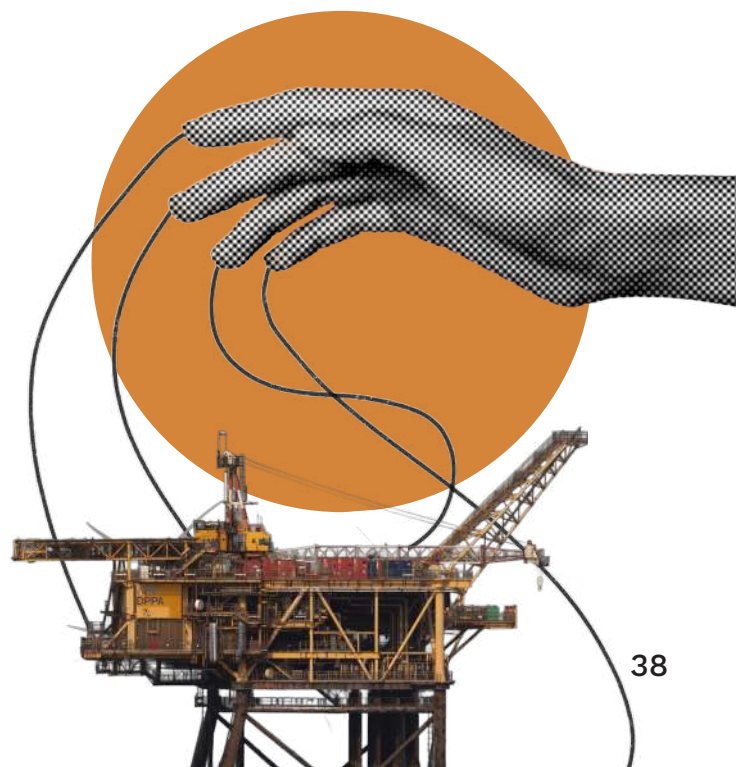
In the emerging “green transition,” Egypt risks reproducing this dependency in a new form. Flagship hydrogen and ammonia projects in the Suez Canal Economic Zone are designed primarily for European markets, financed and operated by foreign developers, and tied to long-term offtake agreements that prioritize export over domestic security.⁵⁰ Meanwhile, IMF-driven subsidy reforms have raised tariffs and eroded affordability, contributing to rising blackouts and household strain.

The paradox is clear: Egypt holds vast fossil and renewable potential, yet policy autonomy and citizen benefits remain constrained. Egypt's Integrated Sustainable Energy Strategy 2035 (ISES)⁵¹ sets a target of 42% renewables in electricity generation by 2035, emphasizing wind, solar, hydro, and nuclear.⁵² However, gas continues to dominate as a “bridge fuel,” reinforcing fossil lock-in. The strategy's focus on large-scale projects (e.g., Benban Solar Park, Gulf of Suez wind farms) reflects centralized governance and mostly export-oriented planning to European markets especially with green hydrogen and ammonia as reflected by media commentary, while distributed energy systems and community-level ownership remain sidelined, limiting the scope of genuine energy sovereignty^{50,51}.

49 Refer to [Concession Agreement](#), Article III GRANT OF RIGHTS AND TERM, Paragraph 7

50 Suez Canal Zone (2024) [Link](#)

51 Integrated Energy Strategy of Egypt 2035 Presentation (Ministry of Electricity) - [Link](#)



TUNISIA

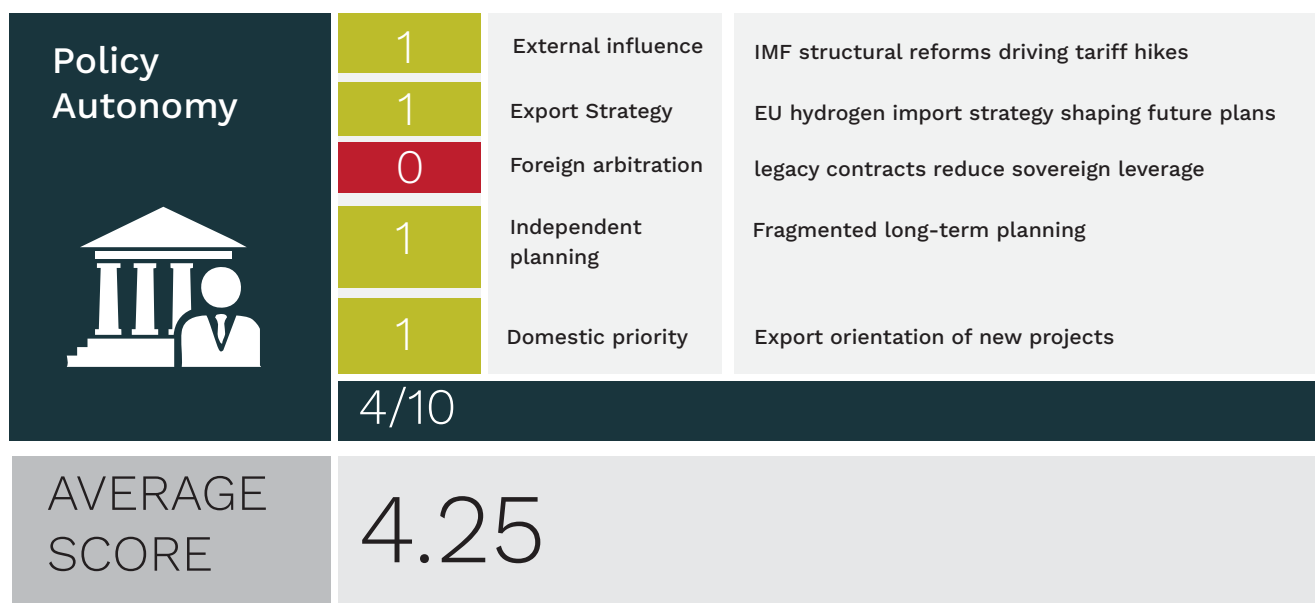
Table 2.4. Scoring of Tunisia's Energy Sovereignty against the Energy Sovereignty Assessment Dimensions

DIMENSION	SCORE	JUSTIFICATION	
TUNISIA			
Energy Cleaness 	1	Renewable Share	Below 10% of generation
	1	Carbon intensity	Heavy reliance on imported fossil fuels
	1	Decarbonization	35% renewables by 2030 but limited progress
	0	Fossil lock-ins	Ongoing gas import agreements
	1	Subsidies	Fossil subsidies remain high
	4/10		
Resource Control & Independence 	0	Domestic control	Very Limited local control due to control from fossil fuel companies and depends on imports ^{53,54}
	1	Rent capture	Unfavorable historical concession terms
	0	IOC dependence	Strong reliance on foreign tech/expertise
	1	Foreign financing	Solar projects mainly funded by European investors
	1	Domestic vs export	TuNur and other projects designed for export ⁵⁵
	3/10		
Energy Accessibility & Justice 	2	Electrification	Near universal with some minor rural gaps
	1	Affordability	Subsidy cuts under IMF reforms increasing costs
	1	Reliability	blackouts due to fossil import dependence
	1	Community benefits	Minimal local equity in projects
	1	Environmental & Social impacts	Land rights concerns over solar projects
	6/10		

53 World Bank (2024) [Link](#)

54 IRENA (2023) [Link](#)

55 GH2 Tunisia Projects [Link](#)



Tunisia's energy sovereignty is catalyzed by heavy dependence on imported fossil fuels (over 50% of primary energy) and sluggish diversification. Renewable penetration remains under 10%, leaving Tunisia vulnerable to price shocks, blackouts, and affordability crises. The result is an energy system constrained by debt, fragmented governance, and externally shaped priorities, where national control over resources and policy remains limited.

Looking ahead, Tunisia's National Energy Strategy 2035 first outlined in the Tunisian Solar Plan (TSP)⁵⁶ and reinforced in its Nationally Determined Contributions (NDC)⁵⁷, sets a target of 30% renewable electricity by 2030, emphasizing decentralization, private sector engagement, and grid diversification (Tunisian Government, n.d.). However, Tunisia's transition is constrained by political fragmentation, limited grid capacity, and frequent tendering delays. The country's energy deficit (more than 50% of primary energy is imported) adds urgency to the transition, but implementation remains slow.

⁵⁶ Tunisian Solar Plan [Link](#) and its respective action plan [Link](#)

⁵⁷Tunisia's Updated NDC October 2021 - [Link](#)

MOROCCO

Table 2.5. Scoring of Morocco's Energy Sovereignty against the Energy Sovereignty Assessment Dimensions

DIMENSION	SCORE	JUSTIFICATION	
MOROCCO			
Energy Cleaness	2	Renewable Share	21%(2023) of power mix is renewable generation and increasingly annually - 24.6% as of 2024
	1	Carbon intensity	Coal still >60% of generation
	1	Decarbonization	National roadmap with steady progress
	0	Fossil lock-ins	Some long-term coal plants and LNG import deals
	1	Subsidies	Phasing Out of Fossil Fuel Subsidies
	6/10		
Resource Control & Independence	1	Domestic control	MASEN leads renewables but foreign developers own major assets
	1	Rent capture	Long-term PPAs benefit foreign investors
	1	IOC dependence	Fossil exploration and imports foreign-led
	1	Foreign financing	EU loans and private European firms dominate
	1	Domestic vs export	European offtake prioritized
	5/10		
Energy Accessibility & Justice	2	Electrification	%99 coverage
	1	Affordability	Tariffs stable but rising with new export projects
	1	Reliability	Grid stability improving
	1	Community benefits	Limited but some local partnerships
	1	Environmental & Social impacts	CSP water use and land issues in Ouarzazate, and the social implications of coal power plants
	6/10		



Morocco scores highest among the three countries on the Energy Sovereignty Index, driven by sustained state-led investment through institutions such as MASEN. Renewables provide roughly one-fifth of electricity generation today, with a policy target of %52 of installed capacity by 2030. Morocco has positioned itself as a regional leader in low-carbon energy. However most flagship projects are foreign-financed, foreign-operated, and increasingly designed around European export markets rather than domestic needs. Since the assessment is multi-dimensional, import dependence and investor-friendliness reduce Morocco's score, but stronger institutions and faster renewable delivery still lift it slightly above Egypt and Tunisia.

Despite near-universal electrification and an early start with the 2009 National Energy Strategy and the 2021 Carbon Neutrality Roadmap, concerns about energy justice persist.⁵⁸ Rural communities often lack input on project siting, while concentrated solar power (CSP) plants raise environmental concerns over water use and land appropriation, especially in the southern provinces.⁵⁹ At the same time, Morocco still depends on coal for more than %60 of its electricity, and domestic manufacturing of renewable technologies remains underdeveloped⁶⁰. In practice, Morocco is advancing a green transition—but not yet a sovereign one, as public control, community benefit, and industrial autonomy lag behind headline renewable achievements.

58 Beyond the Green Transition in Morocco - [Link](#) Carnegie 2025

59 Energy and development: exploring the local livelihood dimension of the Noor I CSP project in Southern Morocco - Germanwatch - June 2015 [Link](#)

60 Stratégie Bas Carbone à Long Terme Maroc (2021) 2050 [Link](#)

The energy sovereignty assessment for the 3 countries has showcased that while there are significant differences in the actual reserves and energy mix of each country (and how Tunisia sources its Energy in comparison to Egypt, and the same with Morocco), the levels of sovereignty are consistent to a certain extent. All 3 countries have different strategies to how they have approached both renewables and imports, but it is clear that all countries are struggling to balance the prioritization of export oriented projects with domestic needs.

Across Egypt, Tunisia, and Morocco, our index shows that “cleaner” does not automatically mean “sovereign.” Despite different approaches and timelines, the same structural constraints recur, export-first project design, long-tenor PPAs and concession-style contracts that externalize control, fossil lock-ins that anchor dispatch, and reform packages that narrow domestic policy space. Morocco’s faster renewable rollout lifts its overall score but is tempered by coal reliance and foreign-owned assets while Egypt’s scale and hub narrative sit alongside weak policy autonomy and export-oriented focus. In short, the region is transitioning in technology mix more than in power relations, leaving Resource Control & Independence and Policy Autonomy as the binding constraints on sovereignty.

A sovereign pathway therefore hinges less on megawatt totals and more on institutional design. Regionally, coordinated procurement, interconnection rules that privilege security of supply, and a common position on hydrogen/export commitments can shift bargaining power. The remainder of the report translates these principles into country-specific roadmaps and policy levers, and uses the index to track whether new projects move North Africa toward—not just through—a just and genuinely sovereign energy transition.



SECTION 3.

PATHWAYS AND RECOMMENDATIONS



3.1 JUST ENERGY TRANSITION

National laws and regulations must be enhanced (or enacted from scratch) in all three countries to redirect fossil-fuel profits and pollution penalties toward financing repair and a just transition, without shifting costs to households, and to ensure all new renewables and hydrogen projects align with energy sovereignty. The following is a summary of the call to action based on the analysis in this study.

If the rules and methods stay the same, changing the type of fuel or energy will not change the outcome in North Africa. The transition needed is not one that overlooks communities and does not protect them, which would result in the same challenges and incidents showcased in the previous section 2. It cannot be a transition that overlooks key aspects that can empower communities and states, due to having the same external leverages and opaque contracting as the controlling factor.

North Africa's energy transition will not be won by megaprojects alone. Communities living with the costs of extractivism, pollution, land loss, price shocks, see little benefit.

What's taking shape in North Africa looks less like a just transition and more like an unjust transition where communities in Morocco, Tunisia and Egypt are being positioned as "green sacrifice zones" for Europe's decarbonization, absorbing land, water, and social costs from mega-projects in solar, wind, and especially green hydrogen geared to export,⁶¹ while benefits and clean energy flows are externalized northward, reproducing extractivist and "green-colonial" patterns which prioritize exports over local needs, intensifying water stress, and deepening inequalities rather than delivering shared prosperity.⁶² Such cost-shifting strategies are a form of climate colonialism deemed to be carried out in the name of justice. In short, local people carry the burdens of Europe's energy consumption and "transition,"⁶³ while the promised dividends at home remain out of reach.

61 Green Sacrifice Zones, or Why a Green New Deal Cannot Ignore the Cost Shifts of Just Transitions 2020 [Link](#)

62 Beyond Extractivism - Toward a Feminist and Just Economic Transition in Morocco and Egypt [Link](#)

63 And also sometimes the transition for the country itself

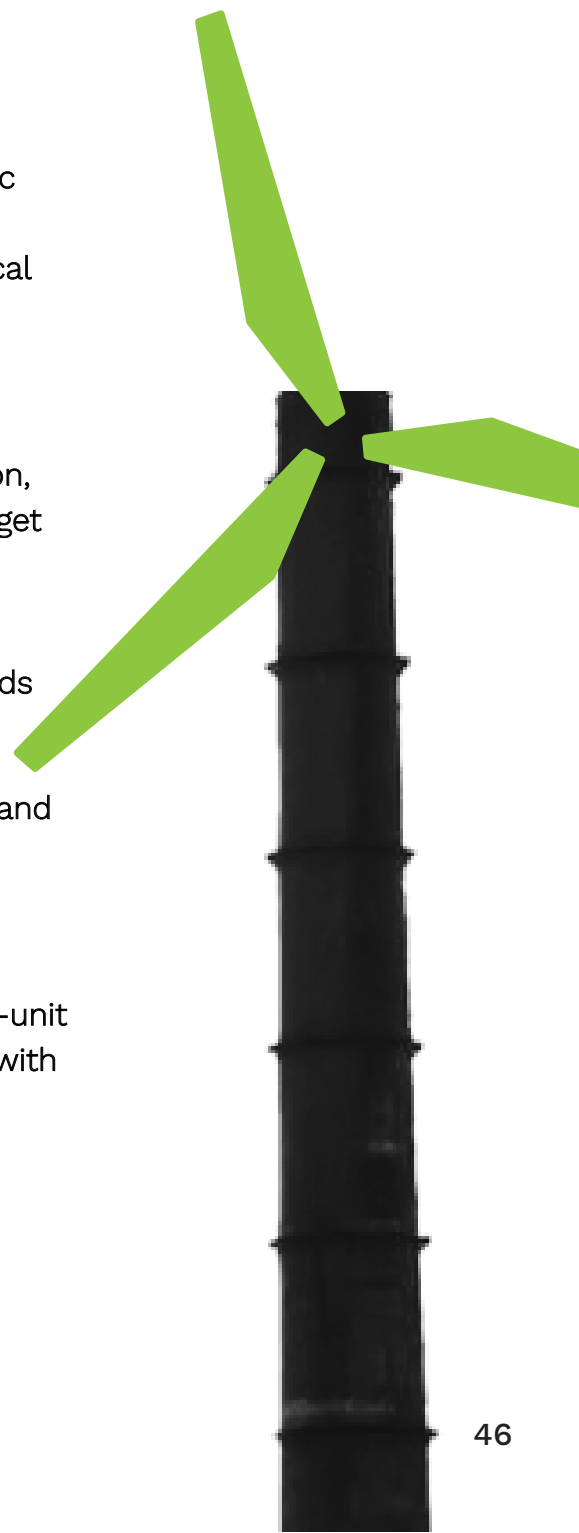
64 Green Sacrifice Zones, or Why a Green New Deal Cannot Ignore the Cost Shifts of Just Transitions 2020 [Link](#)

ENERGY PATHWAYS FORWARD

A credible transition needs two synchronized tracks: a managed fossil pathway (to reduce risk and fiscal exposure) and a distributed-first renewables pathway (to grow energy sovereignty, jobs, and resilience).

FOSSIL FUEL

- Stop all new exploration awards in a feasible economic framework for all 3 countries in line with IPCC recommendations (provided financing and technological support for developing countries, also IPCC recommendations, would support this pathway)
- Methane cut program (LDAR, compressor electrification, flare-to-power) with fee-rebate design and operators get fee rebates only for verified reductions.
- Decommissioning schedules published for mature fields
- Contract rebalancing: insert Foreign Exchange Market and fuel-price collars, and add domestic-supply priority clauses that trigger during shortages.
- Coal exit: Rapidly Phase Out new coal, publish unit-by-unit retirement ladder (e.g., smallest/dirtiest first), replace with wind+PV+storage portfolios and firm imports via interconnectors while storage scales.

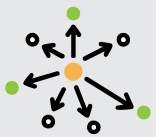
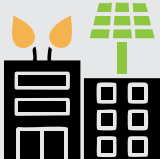


RENEWABLE ENERGY

Despite bold targets and strong renewable energy potential, the energy transitions in Egypt, Tunisia, and Morocco remain entangled in externally-driven, profit-oriented, and export-led development models. These approaches risk reproducing the same inequalities and dependencies long associated with fossil fuel extraction and IOCs, this time under a green banner. A just transition must prioritize people, Energy sovereignty, and long-term resilience over corporate greenwashing and short-term returns. The following table outlines practical energy transition strategies that can restore public control, ensure equity, and deliver tangible social and environmental benefits. Each pathway is aligned with local realities, institutional landscapes, and the lessons learned from decades of development-by-extraction for each country, in addition to the weaknesses identified in the assessment conducted on energy sovereignty in section 2. A significant focus of the pathways forward is on solar, as it is seen as a higher potential for decentralized energy provision for the rural populations of all 3 countries.



Table 3.1 Renewable Energy Priority Areas and modalities for enhancement

PRIORITY AREA	EGYPT 	TUNISIA 	MOROCCO 
Community Energy Ownership 	Enable community-based solar projects through feed-in tariffs for connected parts of Upper Egypt and for off grid villages in Matrouh, support community solar mini grids with simple service prices and start up subsidies.	Expand existing solar cooperative pilots in southern interior regions with ANME technical support and microfinance backing.	Scale rural electrification programs in the Atlas region by allowing collective PV ownership and integrating with irrigation cooperatives.
Decentralized & Off-Grid Energy Solutions 	Support rooftop solar with net metering in informal settlements; prioritize solar irrigation for Nile Delta smallholder farmers. Build on the experience of other startups and firms on developing decentralized solar solutions in Egypt	Prioritize decentralized PV systems in remote villages via the National Electrification Program, ensuring gender-sensitive deployment.	Leverage Moroccan solar expertise to develop local microgrids in drought-prone areas using domestic installers and local governance structures.
National Public Benefit from RE Infrastructure 	Reform BOO model contracts to ensure minimum 25% of power from new mega-solar/wind projects serves domestic demand before exports. (realistic for Egypt to probably be 15%)	Integrate mandatory domestic supply clauses and community investment requirements in all green hydrogen and solar tenders.	Introduce state equity participation in all foreign-led RE mega projects, with mandatory re-investment into national just transition funds.
Sustainable RE Industry & Job Creation 	Develop local RE component manufacturing hubs in Suez Canal Zone and Upper Egypt with training programs tied to public polytechnics. Without localization of manufacturing, considering that Egypt has many of the raw materials for renewable energy infrastructure, dependency would remain	Create a national strategy for RE value chain localization under the energy transition strategy or the TSP, including turbine and panel assembly.	Expand solar and wind technician training schools in Ouarzazate and Tangier, integrating small enterprise incubation and gender inclusion.

For the pathway forward, civil-society roadmaps set out the corrective: make plans and contracts public, create inclusive transition councils, ensure gender-responsive participation, tie public support to fair deals, and align financing with domestic development rather than off-take abroad. In practical terms, that means prioritising local offtake, anchoring projects in transparent law and accountable institutions, and building manufacturing and service chains at home so the transition grows sovereignty rather than a new dependency.⁶⁵

3.2 ENERGY SOVEREIGNTY

The report shows that dependence on fossil contracts and hard-currency exposures keeps prices and planning vulnerable, while large renewable projects can repeat the same patterns if rules and ownership do not change. Energy sovereignty is about who decides, who pays, and who benefits. When public land, permits, and grids are used, the return to society must be clear and measurable, not assumed.

EXPORT AND PPA CONDITIONALITY

These are state-mandated, non-negotiable conditions that governments should embed across all relevant contracts and permits for export-oriented hydrogen, LNG, and utility-scale renewables. They must appear not only in PPAs but also in concession/lease agreements, grid-connection and transmission-service agreements, port and terminal-use agreements, and export licenses. For hydrogen, LNG, and utility-scale RE designated for export, hard-wire three clauses:

Domestic offtake floor

- A binding requirement that 15–25% of annual net output is delivered into the national grid or strategic reserves before any exports.⁶⁶
- The state may call up the floor (or more) for emergency dispatch during shortages, heatwaves, or grid contingencies
- Allocations are metered at interconnection points; quarterly true-ups correct any shortfalls.

⁶⁵ Resource Justice Network - Collective Action for a Just Transition in the MENA by 2030 [Link](#)

⁶⁶ The percentage range is based on several domestic prioritization models for energy exporting such as Indonesia's Domestic Market Obligation [link](#) or Nigeria's Domestic Crude Supply Obligation [link](#)

Community dividend (fixed percentage of gross project revenues to local trust).

- A dedicated transfer of of an agreed upon / set percentage of gross revenues (not profits) into a local, ring-fenced trust for producing/impacted communities, even if operated by local government
- Ideally managed by a trustee board (local authority, community reps and civil society, women's groups, academia, regulator observer).
- Eligible uses: environmental repair, water protection, public health, skills & jobs, and just-transition livelihoods. No payrolls of the developer/contractor.

Domestic value rules (local Operation and Maintenance O&M, parts, training quotas).

- Binding local-content and capability requirements across Operations & Maintenance (O&M), spare parts, and workforce development.
- Conceptually, this could be that O&M workforce: $\geq 70\%$ national workforce by headcount within 3 years and $\geq 40\%$ in supervisory/technical roles as this is a glidepath to localize key management.
- Other models could include Apprenticeships equal to 1–2% of payroll, accredited training hours per employee/year, and open technical manuals/data sufficient for local servicing.

Condition transmission access and port services on compliance, making energy sovereignty clauses non-negotiable infrastructure rules, not side letters.

- Grid connection & transmission service agreements (exports to be limited if there is noted breach)
- Port and terminal concessions (if there is a breach, access is not provided)

FIX CONTRACTS, TRANSPARENCY AND OVERSIGHT

- Publish contracts for hydrocarbons and RE/hydrogen, standardize PPA transparency and grievance redress. The constitutional and legal framework for this to happen exists already in Egypt and Tunisia, and requires activation from local government and politicians.
- Stabilization clauses must exclude environmental, health, and climate measures adopted in the public interest.
- Independent monitoring: require operators to detect and report impacts with verifiable technology and share data with regulators and communities.

RE-ANCHOR THE POWER SYSTEM IN PUBLIC INTEREST

Energy Sovereignty means shifting from megaproject dependency to distributed ownership. Raising distributed-PV caps, guaranteeing interconnection, enabling wheeling for municipalities and cooperatives, and reserving grid capacity for municipal services, irrigation schemes, agro-processing facilities, and rural schools can democratize energy access. Export-oriented renewables and hydrogen must only proceed with minimum domestic offtake requirements, municipal co-ownership shares, and strict land and water safeguards, so that external markets do not capture domestic resilience. Globally, the three countries can model a producer-country pathway that cuts emissions, deters green-extractivism, and centers climate justice, showing that decarbonization in the Global South can be fair, investable, and state-steered.



■ Distributed ownership: raise distributed-PV caps, guarantee interconnection timelines, enable wheeling and micro-PPAs, and reserve grid capacity for municipalities, irrigation schemes, agro-processing, clinics, and schools. This is crucial for rural communities in all 3 countries.

■ **Domestic value from export-oriented projects:**

- minimum domestic offtake,
- municipal/co-op co-ownership,
- strict land and water safeguards for renewables and hydrogen.

■ **Protect workers and plan the shift**

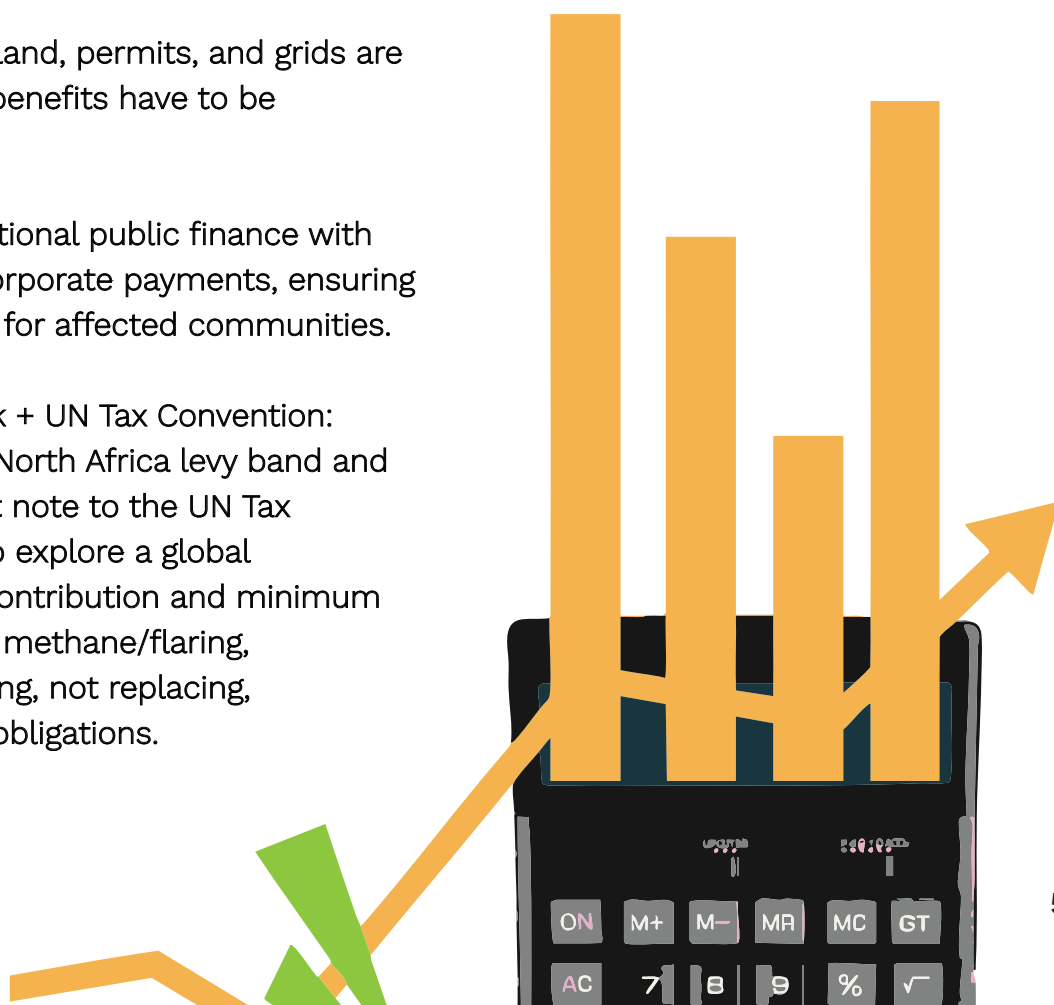
- embed just-transition clauses in licensing,
- fund reskilling,
- publish worker redeployment plans linked to decommissioning schedules

ALIGN FINANCE WITH ENERGY SOVEREIGNTY

■ When public land, permits, and grids are used, public benefits have to be guaranteed.

■ Blend international public finance with mandatory corporate payments, ensuring direct access for affected communities.

■ Regional track + UN Tax Convention: coordinate a North Africa levy band and submit a joint note to the UN Tax Convention to explore a global fossil-profit contribution and minimum standards on methane/flaring, complementing, not replacing, rich-country obligations.



3.3 ACCOUNTABILITY & FINANCE MECHANISMS

For every dollar of oil or gas extracted in North Africa, local communities receive only a 3-1 cent fraction of the value, while the bulk of profits (35-57 cents) flow abroad (as shown by the fiscal terms lacking any community funding mechanisms in Section 1.2).⁶⁷ The true costs of health impacts, pollution, and social disruption remain unpaid. Recent legal developments strengthen the case for accountability. The 2025 International Court of Justice (ICJ) advisory opinion on climate change affirms that both states and corporations have obligations and responsibilities under international law to prevent environmental harm and may bear liability when they fail to do so.⁶⁸

FISCAL ACCOUNTABILITY AND HOLDING POLLUTERS ACCOUNTABLE

The fossil fuel economy in North Africa, as elsewhere, has long externalized its costs and profits flow to fossil fuel companies while the environmental and health damages remain local. Communities bear the brunt of pollution, land loss, and economic dependency, yet receive little in the way of reparations or structural investment. While the International Court of Justice has confirmed that States that cause climate harm must give full reparations to those who endured such harm, and the UNFCCC has recognized loss and damage, no binding mechanism compels the fossil industry, which has primarily caused the climate crisis, to pay. National governments, therefore carry the responsibility to establish fiscal instruments, taxes, levies, or reparations frameworks, that redirect wealth into social services, resilience, and local development. Below are the principal routes North African governments can use to mobilize accountability and finance while advancing energy sovereignty.

- ***Legislate polluter-pays into enforceable domestic law and direct payments into a Repair & Transition Fund with audited community windows. This is especially important for isolated communities in Egypt and Tunisia and where extraction has been taking place***

⁶⁷ Gross Sales per project year, is calculated through revenue split followed by the local content and the general financing terms. Local community portion is calculated through community contribution, host area wages and local government income while abroad is the IOC net profit, interest/imported OPEX/CAPEX. Then offshore gas was mixed with onshore oil percentages (where governments take 45-50% CAPEX at 20%, IOC net profit at 15-20%, community contribution at 0.5 to 1% of the model.

⁶⁸ ICJ Opinion on Obligation of States in respect to climate change [Link](#) July 23 2035.



EGYPT CASE STUDY (A STARTER LEVY, RIGHT-SIZED)

This levy is not “symbolic” but a starter, domestically administered surcharge designed to establish the principle that fossil-fuel profits must contribute to repair and transition. A %0.1 levy on IOC profits earned in-country, collected by EGPC and ring-fenced to a Just Transition Window, is simple to administer and politically legible under the polluter-pays principle. According to calculations from the authors using public financial data from IOC financial reports, the levy on Shell, BP, and Eni’s reported Egypt profits from 2023–2021 would have hypothetically raised $\approx$ US\$10.9 million (excluding other majors). That is sufficient to fund $\sim$ 15–20 regional solar-clinic hybrids or $>$ 2,500 farm solar pumps. Egypt already applies a 40.55% corporate income tax to oil and gas; this levy would be additional, non-deductible, and non-recoverable in tariffs, ensuring it is not shifted onto households.

The political feasibility of such a levy or case study can be strengthened through alignment with international norms. The ICJ’s recent advisory opinion on climate change can help ground the fund within Egypt’s broader climate obligations while also shielding it from international backlash. Furthermore, the fund should include voluntary but encouraged and facilitated contributions from state owned and national/private oil companies, to further ramp up the pressure on the respective IOCs. Tunisia has already taken steps to establish a dedicated financial mechanism for its energy transition through the Fonds de Transition Énergétique (Energy Transition Fund), created under Law No. 12-2015 to support renewable energy, energy efficiency, and capacity-building. Financed by state budget allocations, donor grants, consumer payments through energy bills and energy efficiency levies, the fund was intended as a key tool for implementing Tunisia’s 2030 energy strategy.

A low-rate national levy can also be the anchor for a regional approach, harmonized across North Africa and aligned with the UN Tax Convention process, so that companies contribute predictably to climate-damage and adaptation costs in the region without excusing high-income countries from their separate obligations.

Thus, in summary to hold polluters accountable:

- Starter levy on fossil fuel industry, specifically IOC in-country profits (for example 0.1-0.5 percent), non-deductible and non-recoverable in tariffs, in addition to methane and flaring fees
- Strict liability for spills and chronic pollution, third-party liability insurance, and incident escrow to ensure timely payment. If these are not enforced strictly, countries like Egypt and Tunisia risk communities bearing the cost.
- No CSR substitution. Replace ad-hoc CSR with standardized, enforceable community-benefit agreements and a small community royalty on all new energy projects.
- Make mandatory requirements for fossil fuel companies to restore operation sites of oil and gas concessions upon expiry or exit from the agreement. This is increasingly important with the energy transition of companies to ensure accountability is maintained for areas that have been ecologically damaged by operation, prior to the shift to new areas of land for clean energy projects.

ADMINISTRATIVE LIABILITY FOR POLLUTERS

Use existing environmental and petroleum laws to impose operational fees that directly price harms: methane/flare fees, produced-water discharge fees, and mandatory decommissioning bonds for all wells and offshore assets.

Combined with stronger environmental liability rules (strict liability for spills/leaks; mandatory remediation plans) so payments are automatic, predictable, and ring-fenced to local restoration and transition projects. This complements, but does not depend on, civil or criminal litigation and should be focused on enhancing existing legislative frameworks.



STRATEGIC LITIGATION

State-led strategic litigation for Egypt, Morocco and Tunisia can leverage recent jurisprudence and regional human-rights bodies to underpin climate and environmental claims against operators that fail to prevent harm or disclose risks. There are two potential tracks for this:

- Domestic tort and administrative suits for specific harms (spills, air quality exceedances, flaring)
- Strategic filings that reference international obligations, especially the most recent ICJ advisory opinion, to pressure for settlements and compliance agreements that can fund community projects.

Governments can also empower public interest litigation (attorney-general or ombudsperson standing) to avoid burdening affected communities with costs, which differs in the modality of application in each legal framework of the 3 countries.

In addition to that, to ensure that litigation and accountability efforts are based on ground legal basis:

- Use constitutional duties, environmental liability law, and the ICJ climate opinion's articulation of state duties to regulate private actors and secure remedies, keeping environmental claims justiciable in domestic courts.
- Even if the ICJ is focused on states, this should be the catalyst for North Africa states to develop the right frameworks to fulfill their obligations on climate action by enhancing regulation on the fossil fuel industry



REVENUE SHARING MECHANISMS

Introduce potential state-led Repair & Revenue-Sharing Mechanism that earmarks a predictable share of extractive revenues for producing and adjacent impact regions. It complements (not replaces) polluter-pays: company-specific fines, penalties, and bond draws still flow through liability channels, while a formula-based derivation share of royalties/production taxes is ring-fenced for environmental repair, health safeguards, water protection, and just-transition livelihoods. Legally and politically, the mechanism rests on “resources belong to the people” principles and explicit regional-allocation mandates (e.g., Tunisia’s 2014 constitutional basis for revenue allocation to regional development). Design features include a fixed derivation % to producing governorates, a per-unit top-up (of the oil barrel) to stabilize funding when prices or volumes swing, ceilings and an equalization window for downwind/downstream impact zones, and strict use rules (remediation, decommissioning co-finance, groundwater/coastal protection, health surveillance, skills/SMEs). States lead by legislating the formula and enforcing liability then companies comply and then communities see transparent, repair-oriented benefits. The following figure provides conceptually what that could look like if translated into practice.

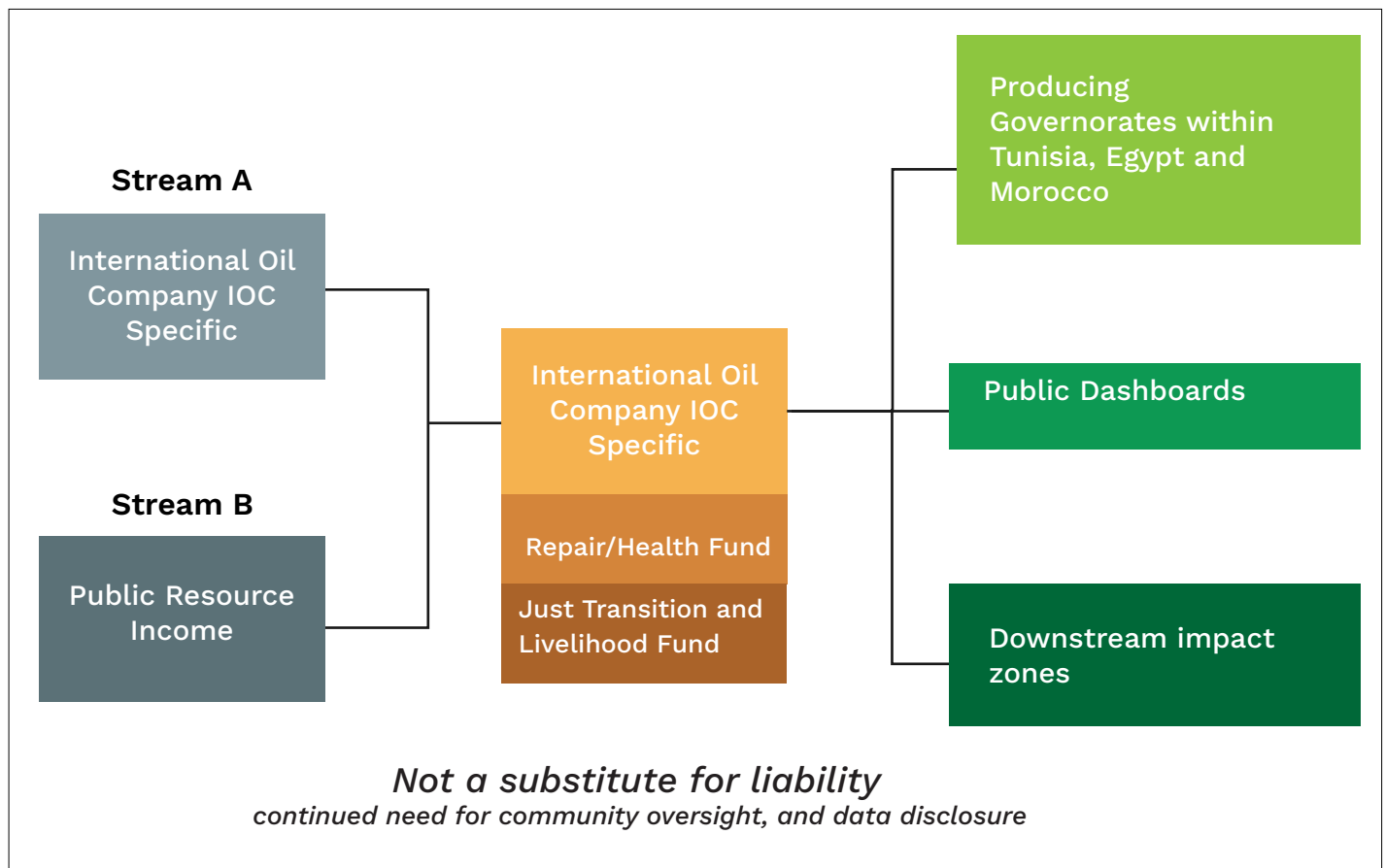


Figure 3.1 Mapping the potential for a National Repair and Transition Window

In practice, the middle allocation hub or window will significantly differ from one country to another depending on the political and governance philosophy and thus are just suggestive shapes or structures of sub funds that could exist. However, the outputs shouldn't differ and public dashboards can significantly enhance accountability.

GLOBAL TAXATION

The ongoing UN Tax Convention presents a concrete opportunity to introduce a global profit tax on international oil and gas corporations, where the revenues could be channelled directly into UN climate funds.

However, international climate funds such as the Green Climate Fund, the Adaptation Fund, and the Loss and Damage Fund are public, state to state channels; they do not create duties for fossil fuel firms and they offer limited, intermediated access for affected communities. That is precisely why domestic accountability is needed. As mentioned above, North African governments can thus require company contributions to a national Repair and Transition Fund that finances ecosystem restoration, loss and damage responses, and community led adaptation. These could also be contractual clauses that require them to commit to the same financing channels that are supported by international funds like the Green Climate Fund. This is grounded in polluter pays and in constitutional duties of environmental protection where applicable, and it complements rather than replaces international finance.





CONCLUSION

North Africa is rich in sun, wind, and ambition, but poor in value capture, accountability, and inclusion. A just transition here is ultimately a governance project which rewrites the rules so authority, revenues, and risk align with the public interest. The region has added new technologies but kept old power relations. Energy security and export revenues have outweighed energy sovereignty. This has delivered short-term adequacy while weakening domestic control over price, planning, and technology. The path forward has to be a governance project. Public assets such as land, permits, and grids must yield public benefit. Contracts and power-purchase agreements should be open to scrutiny. Domestic supply should come before export commitments. Communities that host projects should see direct, predictable returns. Workers should have stable jobs and clear protections. Environmental harm must carry real liability rather than promises on paper.

Financing and accountability are tools to make this real. Polluter-pays instruments and clear legal responsibility can convert private rents into public repair and transition funding. Strategic litigation can close gaps where regulation is weak. Revenue sharing can secure long-term resources for water, health, and livelihoods. None of this replaces domestic accountability. It strengthens it and keeps value at home when public resources are at stake.

Implementation is the test. Governments can publish standard contracts, reserve a share of export-oriented output for local use, and set targets for distributed generation that put households and municipalities on the map. Grid rules can reward flexibility and reliability rather than size alone. Progress should be tracked through a small public dashboard that shows who owns assets, how burdens fall on households, how fast methane and flaring are falling, and how quickly grievances are resolved. What is measured in public can be governed in the public interest.

Sovereignty also has a regional dimension. Shared standards for contracts and offtake can raise bargaining power. Interconnections and spare-parts pools can cut costs and reduce dependence on single vendors. Joint training and certification can open doors for a mobile workforce, including women and youth. When countries set rules together that protect domestic reliability, fair pricing, labor rights, and ecosystems, the transition supports dignity rather than repainting extractivism in green.

In short, the transition is not only about megawatts. It is about authority, fairness, and repair. If rules, revenues, and risks are aligned with the public interest, North Africa can meet its energy needs, protect its people and environment, and reclaim genuine energy sovereignty.



ANNEXES

Annex 1 Concessions and Contractual Frameworks in Egypt, Tunisia and Morocco

EGYPT

Contractual Framework

Note: Egypt's contracts operate in practice as PSAs, where the state retains resource ownership and the IOC acts as a contractor recovering costs and sharing production. However, under the Petroleum Law (No. 66 of 1953), these contracts are still legally referred to as "concessions." This reflects the colonial-era legal framework, when foreign firms held classical concessions, but rather than rewriting the law, Egypt retained the terminology and gradually embedded PSA mechanisms inside it. As a result, Egypt's system is often described as a hybrid model, a concession in name, but functionally a PSA, designed to maintain legal continuity and attract investor confidence.⁶⁹ Negotiations between the State representative (EGAS, EGPC or GANOPE) and the IOC decide on the draft agreement which is then approved by the Council of Ministers (Cabinet). Lastly, the agreement is submitted to Egypt's Parliament to pass it as a specific law, which approves the concession and becomes national legislation.

I. Exploration Concessions: The contract duration is typically 3 years, with 2-year renewals and a maximum limit of 7 years. This is created during the first phase of a company's interest in exploring an area for resources, usually through a Joint Venture (JV) entity. Where a 'joint venture (JV)' is used here, it means a private JV among participating companies (e.g., Operator X% + Non-operator Y%), not a JV with a public entity. The Contractor has no right to extract materials at this phase.

II. Development and Production Concessions: The contract duration is 30-20 years, after which the resource is returned to EGPC or EGAS.⁷⁰ The Egyptian Constitution (Article 32.3) limits these agreements to 30 years
(Arab Republic of Egypt, 2014)

A. Fragmented operations⁷¹: Egypt's PSA framework⁷² requires that every new concession be operated by a JV between the IOC and the national company (EGPC, EGAS, or GANOPE). This has created a highly fragmented operational landscape.

B. Relinquishment: Terms are negotiated in each individual agreement between the IOC and state as there is no fixed percentage or timeframe
Relinquishment: Terms are negotiated in each individual agreement between the IOC and state as there is no fixed percentage or timeframe

TUNISIA

Contractual Framework (Tunisia's Hydrocarbons Code 1999: ETAP, 2008)

I. Prospection Permit (Autorisation de Prospection):

- A. Non-Exclusive Prospection Authorization (Article 9):** Short-term (typically up to 1 year), non-exclusive rights for early seismic and surface studies. No drilling is allowed. Used to screen areas prior to committing to an Exploration Permit.
- B. Exclusive Prospection Authorization (Article 10):** Grants exclusive prospection rights over a delimited area for a short duration (generally up to 1 year, with limited renewal). No drilling is allowed, but the authorization confers a priority right to request an Exploration Permit over the same area, subject to meeting the approved work program and obligations.

II. Exploration Permit (Permis de Recherche): The permit is granted in a phased approach for a total of 5 years: 2 years followed by 2 years and a last year for a total of 5 years. There are up to 2 renewals with a maximum of 11 exploration years. This permit grants the right for IOCs to conduct geological and geophysical studies and drill exploration wells. This is usually awarded directly by ETAP.

A. Relinquishment: 50% percentage of the area must be given back to the government at each renewal stage

B. Exclusive Rights: The operator has the exclusive rights to request a production concession if any commercial discoveries are made

III. Development and Production Concession (Concession d'Exploitation):

This contract is usually valid for up to 30 years as outlined in the Hydrocarbons Code, and open to renewal.

The Tunisian Constitution of 2014 references that natural resources belong to the Tunisian people and mandates parliamentary oversight of resource exploitation
(Republic of Tunisia, 2014)

MOROCCO

Contractual Framework (Hydrocarbons Code of 2003: Kingdom of Morocco, 2003)

- I. Reconnaissance License:** This is for a 1 year duration (can be renewed once) and is an early non-exclusive exploration granted usually for seismic studies (ONHYM, n.d.). This provides **no drilling rights**.
- II. Exploration Permit (Permis de Recherche):** This is for 8 years, divided into two or three periods of renewal phases (ONHYM, n.d.). It provides exclusive rights to explore for oil/gas in a defined area where the holder may drill exploration and appraisal wells. ONHYM has mandatory 25% share in the concession
- A. Relinquishment:** Includes **progressive mandatory area relinquishment** ($n \times 10\%$ at first renewable, capped at 50% at the second renewal - where n is the number of years in the initial period) (Kingdom of Morocco, 2003)
- III. Exploitation and Production Concession (Concession d'Exploitation):** This is for 25 years, open to extension for 10 years (ONHYM, n.d.). It grants rights to develop and produce hydrocarbons after a commercial discovery through a ministerial decree. ONHYM has mandatory 25% share in the concession

GREENPEACE

غرينبيس

