



Strengthening EU-Southern Neighbourhood Relations

The Imperative of Equal Partnerships in the Green Energy Transition

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Building Bridges with Green Energy: EU's Policy and Partnership with the Southern Neighbourhood

In the European Union (EU) and its Southern Neighbourhood,¹ particularly in the Mediterranean region, energy security has emerged as a critical issue impacting every facet of daily life, from transportation and water and waste management to agriculture and industry as well as to healthcare and education. Both regions are significantly hampered by an overdependence on fossil fuels – limited resources that exacerbate environmental issues through substantial greenhouse gas emissions (IPCC, 2023). This reliance not only contributes to global climate change but also places the regions at the mercy of the unpredictable global fossil fuel market, given their status as net importers of energy. Therefore, transitioning towards renewable energy sources is not just imperative for combating climate change and ensuring energy security; it also represents a strategic opportunity for the EU to strengthen its relationships with Southern Neighbourhood countries by collaborating on green energy initiatives (Hanelt and Petersen, 2022). This shift towards sustainability could serve as a cornerstone for fostering equal partnerships, enhancing political leverage, and addressing mutual security concerns.

Neither the EU nor its Southern Neighbourhood can independently accomplish a green transition. A collaborative approach, encompassing interconnectivity, knowledge exchange, and technology sharing,

is essential to ensure a unified advancement towards sustainable energy across the region. For the transition to be 'just', partnerships between the EU and Southern Neighbourhood countries must be founded on equity, with both sides' needs and aspirations met equitably. In light of this, our study underscores the necessity of bolstering EU-Southern Neighbourhood relations to propel the green energy shift on both sides of the Mediterranean. This approach offers a pathway to reinvigorate political ties and mutual understanding, thereby enhancing regional stability and cooperation.

This study begins by examining how green technology can level the playing field, currently skewed by disparities in emissions and access to capital, to enable a fair green transition. It then explores the EU's energy needs and preferences, and how these influence its external policies and partnerships. This is counterbalanced by an analysis of the green transition's progress within the Southern Neighbourhood, taking the region's diverse country landscape into account. Integrating both viewpoints, the final section proposes a strategy aimed at mutual benefit, advancing the green energy transition through partnership. It concludes with pertinent policy recommendations designed to facilitate this equitable and collaborative path forward².

1 The Southern Neighbourhood is defined as the following 10 partner countries of the European Union: Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria, and Tunisia.

2 This study was produced by the Euro-Mediterranean Economists Association (EMEA) with the support and supervision of the Bertelsmann Stiftung. It emerged from a joint workshop held by both organisations in Barcelona on July 13th and 14th, 2023. The authors gratefully acknowledge the workshop organizers from both institutes and all participants for their valuable contributions, which significantly enhanced the authors' understanding of energy policies and scenarios in the Mediterranean region. More information about the workshop is available at the following link: <https://euromed-economists.org/emea-and-bertelsmann-stiftung-successfully-held-the-joint-workshop-on-the-green-energy-transition-in-the-mediterranean-region/>

Chapter 1 | Green Technology and Political Relations: The Imperative of a Level Playing Field

Climate change, propelled by years of excessive pollution and profligacy, not only wreaks havoc on the environment and human health but has also ushered in a new dimension of global inequality. Astonishingly, over half of the world's emissions stem from the most affluent 10 percent of the global population, while the least wealthy 50 percent contribute a mere 7 percent to the total emissions (Kartha et al., 2020). Many individuals bearing the brunt of climate change reside in Africa and the Middle East and North Africa (MENA) region, areas particularly vulnerable to extreme temperatures, escalating sea levels, water shortages, droughts, floods, and air pollution (The World Bank, 2023a). Despite this, the MENA region's share in global emissions is relatively modest at 8 percent, yet this marks a threefold increase over the past thirty years, with a notable 21 percent surge in the last decade alone (World Economic Forum, 2023a).

Breaking away from this alarming trend necessitates substantial investments in renewable energy sources and technologies. The International Energy Agency (2024a) underscores the urgent need for a marked increase in investment in clean energy across emerging and developing economies to maintain the global temperature rise within a 1.5°C limit. However, the MENA region and similar economies are hindered by the high costs of capital, which are exacerbated by risks like currency fluctuations and regulatory uncertainties. Addressing these risks is crucial for facilitating investment in the Southern Neighbourhood. The International Energy Agency (Ibid.) points to the critical importance of international concessional finance and technical assistance not only in addressing these risks but also in substantially lowering the cost of capital.

Reducing the cost of capital and fostering investments in the Southern Neighbourhood are crucial steps towards integrating more green technology in the region. Goodman et al. (2023) argue that technological innovations are pivotal for the decarbonisation of the Middle East and North Africa. Such innovations encompass a range of solutions, including technologies that prevent emissions and those that remove them. Examples include scaling up energy efficiency and renewable energy sources alongside air pollution control and carbon capture techniques (Ibid.). Although

several MENA countries have begun independently incorporating these solutions, there exists significant potential for collaborative efforts to enhance the adoption of green technology across the Southern Neighbourhood.

The intensifying dialogue on green technology as a foundational element for sustainable development highlights its two-fold potential: it can serve as both an equaliser in international relations and, conversely, as a catalyst for increasing disparities. Green technology presents an opportunity to tackle climate change, enhance energy security, and stimulate economic growth, thereby potentially levelling the playing field between more and less developed nations. Nonetheless, the absence of clearly defined partnership terms and the uneven distribution of technological capabilities risk deepening existing inequalities. The dissemination of technology and the support for global research initiatives are critical in closing these gaps, making the advantages of green innovation widely available (Pastorelli et al., 2022). For the EU and its Southern Neighbourhood, this juncture is key: ensuring the fair distribution of green technological breakthroughs and promoting an environment conducive to technology transfer are essential steps forward.

Forming equitable partnerships and collaborative frameworks is crucial to fully leverage green technology for sustainable development, while safeguarding the strategic interests of all parties involved (Brodny and Tutak, 2020). The EU's efforts to foster green technology partnerships with the Southern Neighbourhood occur within a competitive landscape, marked by the involvement of Gulf Cooperation Council (GCC) countries and China in technological investments in the Southern Mediterranean (Al-Shalabi et al., 2013; ChinaMed, 2022). To secure a competitive advantage, the EU must offer partnerships that are mutually beneficial and contribute to creating a level playing field. This can be accomplished, for instance, through trade agreements incorporating technology-sharing provisions (Leonard et al., 2021). Including Southern Mediterranean countries in Global Value Chains (GVCs) not only promotes green technological progress but also brings additional benefits such as economic diversification and local employment

opportunities. Such integration is essential to ensure the equitable distribution of the advantages of green technology and digitalisation (Youssef, 2023).

Green technology acts as a catalyst, amplifying the impact of the green transition, particularly within the realm of green energy (Herzberg, 2023). The necessity for an equitable landscape in the realm of green

technology and political relations between the EU and the Southern Neighbourhood is paramount. As green technology advances, it brings both opportunities and challenges in redefining the geopolitical energy framework. Adopting a strategic approach that emphasizes equity, partnership, and sustainable development is essential to ensure that both the EU and its Southern Neighbourhood flourish in the green technology era.

Chapter 2 | Strategic Partnerships and Challenges in the EU's Green Transition

In line with the emphasis on green technology, achieving an equitable green energy transition through partnerships between the EU and the Southern Neighbourhood necessitates a deep understanding of both entities' needs and motivations. This chapter offers a comprehensive examination of the EU's preferences and the significant challenges it faces regarding the green transition. It also explores how these challenges and preferences shape the EU's external policies and partnerships with the Southern Neighbourhood. It is essential to recognise the discrepancy between the European Commission's policy directives and the actual pace and approach of energy transition activities by the EU member states. This chapter aims to navigate the political landscape of the EU, presenting a balanced view of its energy transition agenda and the real dynamics of its collaboration with Southern Neighbourhood partners.

The EU's economic and political imperatives have undergone significant evolution, shaped by global phenomena such as globalisation, digitalisation, the unfolding climate crisis, and recent pandemics, alongside the distinct priorities of its member states. Central to the EU's strategic agenda has been energy, particularly underscored by the foundation of the European Energy Union in 2015. This initiative seeks to fortify energy security, sustainability, and competitiveness throughout the union (European Commission, 2024a). In its quest to reduce dependency on external suppliers and navigate geopolitical uncertainties and market volatilities, the EU is committed to diversifying its energy mix, sources, and routes. This encompasses substantial investments in renewable energy ventures, the establishment of transcontinental energy links, and forging energy partnerships with regions of strategic geopolitical importance outside Europe.

As a net importer of energy, with 58 percent of its energy sourced externally in 2020, the EU's energy strategy inherently incorporates a significant external dimension (European Council, 2024a). In its quest for strategic autonomy in energy, the EU is navigating the intricate dynamics of global energy politics, with a vision that extends beyond merely meeting its energy requirements (Cagnin et al., 2021). This vision includes fulfilling its environmental goals and bolstering its geopolitical clout internationally. The utilisation of energy as a diplomatic tool has been evident since the introduction of the Global Strategy for the EU's Foreign and Security Policy. A key objective of this strategy, launched by then High Representative for Foreign and Security Policy Federica Mogherini in 2016, has been to enhance energy security by diversifying sources, routes, and suppliers, especially in relation to gas. Furthermore, the 2019 European Green Deal aims to transition the EU into a net-zero emissions economy by 2050, positioning the EU as a leader in 'green deal diplomacy' (European Commission, 2020). Although the Commission lauds the European Green Deal as a pioneering initiative towards climate neutrality, its external approach has faced scrutiny. Critics such as Almeida et al. (2023) argue that 'green deal diplomacy' may be a modern manifestation of European resource imperialism, exploiting the climate crisis for profit under the guise of moral intervention. Additionally, scholars such as Leonard et al. (2021) raise concerns about the potential negative impacts on partner countries, advocating for the EU to support neighbouring countries in their green transition and energy diversification.

To counteract the negative repercussions and forge new avenues for partnership amid the green transition, the EU will leverage its established cooperation frame-

works with the Southern Neighbourhood. Since its inception in 2004, the European Neighbourhood Policy (ENP), funded through the European Neighbourhood Instrument (ENI), has served as the principal cooperation framework with the Southern Neighbourhood. From 2014 onwards, energy cooperation has emerged as a key focus for ENI-funded projects. In a bid to rejuvenate and fortify the strategic partnership with its Southern Neighbourhood counterparts, in 2021 the European Commission proposed an ambitious and innovative new Agenda for the Mediterranean (European Commission, 2021a). Anchored in the principles of the European Green Deal, this novel agenda aims to champion a resilient, green, digital, and equitable recovery across the Mediterranean region (European Commission, 2021b).

In the domain of energy transition and security, the new Agenda delineates specific priority objectives, such as the extensive deployment of renewable energy and green hydrogen production, enhanced interconnectivity of electricity systems, and the development of infrastructure that promotes energy efficiency. In support of these objectives, the 'Economic and Investment Plan (EIP) for the Southern Neighbours' was initiated under the new Agenda. The EIP fosters strategic partnerships among international financial institutions (IFIs) – including the European Investment Bank (EIB), the European Bank for Reconstruction and Development (EBRD), the World Bank, the International Monetary Fund, regional banks, and the private sector – to attract investments (European Commission, 2021c). Parallel to the new Agenda for the Mediterranean, the green transition, encompassing energy production and access, forms a fundamental component of the EU's updated comprehensive strategy with Africa (European Commission, 2020a). The European Green Deal articulates that developing green infrastructure in the Southern Neighbourhood and Africa is pivotal for the EU's own transition (European Commission, 2020). Consequently, it is imperative to carefully examine and oversee the implementation of projects and plans stemming from the new agenda to ensure they confer tangible benefits to the local communities in partner countries.

Even prior to Russia's invasion of Ukraine, the new Agenda and the European Green Deal had placed a strong emphasis on the green energy transition and fostering cooperative partnerships with the Southern

Mediterranean (Grosskreutz and Hanelt, 2023). However, the outbreak of the conflict in February 2022 acted as a significant impetus for the EU to expedite the diversification of its energy supply and strengthen alternative partnerships, not only within the Southern Neighbourhood but also elsewhere. Over the years leading up to the war, the EU's reliance on Russian gas and oil had been on the rise, while its own production declined sharply; from 2010 to 2019, domestic gas production in the EU plummeted by two-thirds, and the proportion of EU gas demands met by Russia soared from 26 to 47 percent (ACER and CEER, 2023; International Energy Agency, 2024b). However, in response to Russia's military actions against Ukraine in February 2022, the EU swiftly implemented sanctions on Russian goods – a move that garnered widespread support but also resulted in significant costs to consumers (Eurobarometer, 2023; European Council, 2024b; Masterson, 2023).

In the energy domain, these developments led to the launch of REPowerEU in May 2022, an ambitious initiative aimed at reducing the EU's reliance on Russian energy through enhanced energy efficiency, increased production of renewable energy, and the diversification of energy sources. Accompanying REPowerEU, a Joint Communication introduced the EU's revamped strategy for external energy engagement, setting new targets for renewable energy consumption as outlined by the Revised Energy Directive (European Commission, 2023a). In its quest to decrease dependence on Russian energy, the EU is keen on solidifying existing partnerships and establishing new import routes for both renewable and traditional energy sources. The Southern Neighbourhood is central to this strategy, serving as an important partner both for current fossil fuel needs – with suppliers like Algeria, Egypt, and Israel – and for potential future renewable energy exchanges, such as green hydrogen trade (European Commission, 2022).

The EU possesses the political will to advance the green transition collaboratively with its Southern Neighbourhood partners, as evidenced by initiatives such as the European Green Deal, the new Agenda, and the external energy engagement strategy. Nevertheless, executing these plans faces notable obstacles. Internal opposition within the EU, from member states to civil society, poses a significant challenge, exemplified by widespread protests from farmers against what

they perceive as 'unfair and economically unrealistic' environmental regulations (Abnett et al., 2023; Henley and Jones, 2024). Although EU-wide policies are vital for facilitating the transition, garnering local support from member states and civil society is equally critical to ensure the successful decarbonisation, the expansion of renewable energy sources, and the strengthening of public-private partnerships. In the pursuit of its ambitious renewable energy objectives, the EU will also depend on the cooperation of external partners,

especially as the International Energy Agency (2022) reports that the EU is lagging behind its REPowerEU targets. The Southern Neighbourhood, with its superior renewable energy potential as indicated by solar availability and wind power density, stands in stark contrast to the EU's advantages in infrastructure, technology, and financial resources. A partnership between these two regions holds considerable benefits but must transcend the EU's own interests to achieve true equity.

Chapter 3 | Unlocking Renewable Energy Potential in the Southern Mediterranean: Challenges and Opportunities

The Southern Mediterranean encompasses a diverse array of countries, each with its unique needs and opportunities, yet sharing several commonalities. A significant shared asset is the region's vast potential for renewable energy production, especially in solar power. The majority of Southern Mediterranean countries, along with much of the African continent, rank among the 70 nations identified as having optimal conditions for solar photovoltaic (PV) generation (Suri et al., 2020). Benefiting from minimal seasonal variation, these countries enjoy a stable solar capacity year-round, offering a robust foundation for collaborative energy ventures with Europe. This is particularly relevant for Northern European countries like Germany, which experience heightened energy demands during colder months. Additionally, the MENA region exhibits considerable wind energy potential, further enhancing its capability for green hydrogen production when combined with solar power generation (Mammoser, 2022).

Regrettably, the aspirations of many countries in the region to transition to renewable energy are hampered by their limited financial resources, presenting significant obstacles to investing in the requisite infrastructure and technologies (Berahab et al., 2022). The considerable expenses associated with establishing solar and wind energy projects, coupled with the imperative for grid modernisation and the integration of energy storage solutions, often surpass the fiscal capabilities of these nations (Malek, 2021). Furthermore, these financial constraints are exacerbated by high levels of national debt and budget deficits, further complicating the region's ability to secure external investment.

Moreover, the Southern Neighbourhood contends with political and economic instability that casts a shadow over the investment climate. The prevalence of political turmoil and economic fluctuations serves as a deterrent to external investment, which is vital for financing energy projects. Compounding these challenges, the region faces significant environmental threats due to the climate crisis. The Mediterranean has been identified as a 'hotspot' for climate change, experiencing temperature increases at a rate three times faster than the global average (IPCC, 2023). Manifestations of this accelerating trend are already evident in the region, including water scarcity, desertification, and extreme weather events. These environmental challenges underscore the urgency of reducing emissions – not merely as a contribution to global efforts but as a regional imperative to safeguard sustainable development and security. In addition, the MENA region is undergoing rapid population growth, with projections indicating a doubling in size during the first half of the 21st century (UNICEF, 2019). This demographic surge will significantly escalate energy demands, further emphasising the critical role of the green energy transition in ensuring the region's future energy security.

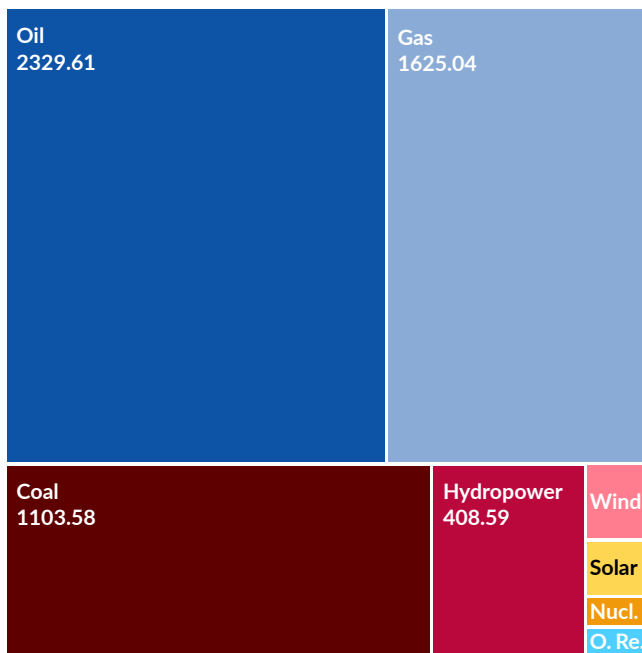
Across the MENA region, concerted efforts towards the green energy transition have been observed, yet the pace of progress diverges significantly among countries. In the past decade, the region has witnessed investments in renewable energy projects totalling about USD 48 billion, with Saudi Arabia at the forefront of these initiatives. India's Larsen & Toubro and China's state-owned Sinohydro are among the leading contractors contributing to this burgeoning sector

(MEED Editorial, 2023). Despite these substantial investments, the reliance on fossil fuels persists, with renewables constituting only 15 percent of the Mediterranean’s energy mix as of 2020 (OME, 2021). The disparity in installed renewables capacity is notable, with Egypt and Morocco boasting capacities of 6,322 megawatts (MW) and 3,727 MW, respectively, outshining others like Tunisia and Algeria, which have capacities of 508 MW and 599 MW, respectively.

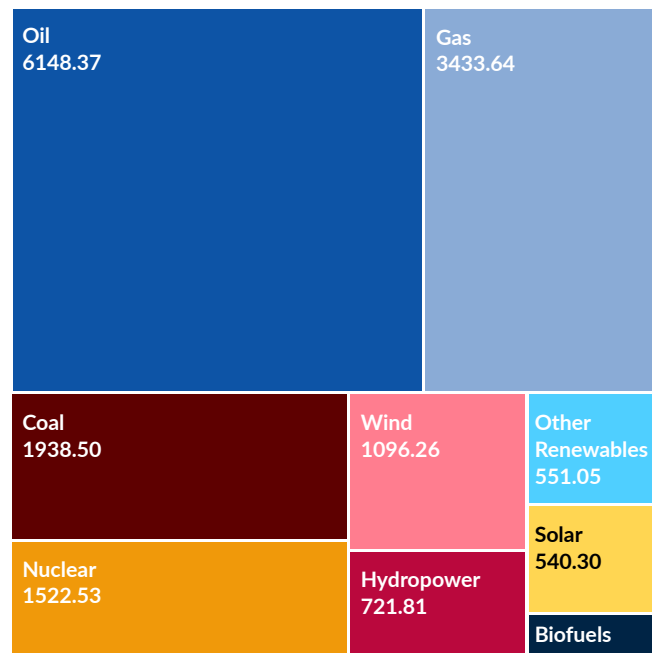
The International Renewable Energy Agency notes significant public investment by countries such as Morocco and Egypt in solar and wind energy over the last six years (IRENA, 2023). However, investments in fossil fuels persist in regions like Egypt. In the broader Middle East, the growth rate of renewables in primary energy consumption is triple that of the global average. Yet, oil and gas continue to be predominant in the region’s energy portfolio (bp, 2023).

Figure 1 | Comparative Primary Energy Consumption by Technology in Africa (a) and the EU (b)

a) Africa Energy Consumption (KWh)



b) EU (27) Energy Consumption (KWh)



Note: The data represents primary energy, which is the initial energy form found in natural resources (like fuel burnt in power stations) before conversion to electricity, transport fuels, or heating. It accounts for end-user required energy plus losses and inefficiencies incurred during conversion to a usable form.

Source: Adapted from the Energy Institute – Statistical Review of World Energy (2023), further processed by Our World in Data. ‘Other renewables (including geothermal and biomass)’ [dataset]. Original data retrieved in February 2024.

Figure 1 illustrates that in both Africa and the European Union, the reliance on oil, gas, and coal remains the predominant form of energy consumption. However, it also reveals a significant discrepancy in overall

energy use, with Africa’s consumption being markedly lower than that of the EU. This difference is particularly striking when considering the population sizes of each continent: the EU as a host to 448.4 million

inhabitants and Africa approximately 1.4 billion people (European Union, 2024; Ritchie et al., 2023). This disparity suggests that energy poverty is a pressing issue in Africa, affecting a substantial portion of the population, especially in rural areas with limited access to electricity. The data underscores the importance of adopting inclusive energy transition strategies in the region, taking both the reliance on traditional energy sources and the critical need to address energy access disparities against the backdrop of population differences into account.

A key area for development in the Mediterranean lies in the exploitation of green hydrogen production. Morocco and Egypt are aspiring to establish themselves as substantial exporters of clean hydrogen (Dargin, 2023; Eljehtimi, 2024). Thanks to their plentiful solar and wind resources, countries in the Mediterranean region are in an ideal position to take the lead in the green hydrogen arena. These resources are crucial for the cost-effective generation of the renewable energy necessary for producing green hydrogen. Furthermore, the strategic geographical positioning of the Mediterranean enhances its role as a potential hub for exporting green hydrogen to markets in both Europe and Africa, thereby elevating its economic and environmental profile.

In North Africa, energy strategies vary significantly between countries, influenced largely by their roles in the global energy market. Countries like Algeria have historically centred their development on the export of oil and gas. In contrast, Morocco and Egypt are net importers of energy, which shapes their approach to energy transition. Typically, countries that are net exporters of fossil fuels set less ambitious targets for renewable energy production compared to net importers. However, these exporter countries often channel a portion of their oil and gas revenues into renewable energy investments.

Take Algeria as an illustrative case: it is the world's seventh-largest natural gas exporter, a position that significantly supports its national economy (Statista, 2023). Gas revenues form a pillar of Algeria's fiscal structure and are crucial for its economic stability. However, many of Algeria's trade partners have committed to the Paris Agreement, which mandates a reduction in fossil fuel dependency. This international context presses Algeria to diversify its energy portfolio. Consequently,

countries like Algeria, with economies deeply intertwined with hydrocarbon exports, are observing their oil and gas sectors pivot towards renewable energy investments due to global commitments and regional pressures. For net exporting countries like Algeria, the drive towards energy transition is largely propelled by state-owned enterprises and long-standing trade relationships, as seen in projects with partners such as Italy and Germany.

Conversely, leveraging the global shift towards renewables, energy import-dependent countries like Morocco and Egypt are actively pursuing their transition to renewable sources and seizing new prospects in this arena. By channelling investments into renewable energy production both nations are working towards energy self-sufficiency, reducing their environmental impact, and contributing to the international effort to mitigate climate change. Furthermore, the excess renewable energy that these countries aim to generate holds the potential to transform them into net energy exporters, allowing them to tap into the global renewable energy market. This not only promotes economic diversification but also carves out new economic pathways that are both sustainable and profitable.

Morocco has made remarkable progress in leveraging its plentiful solar and wind resources, a prime example being the Noor Ouarzazate Solar Complex, counted among the world's most significant solar power establishments (Power Technology, 2020). These efforts are part of Morocco's bold vision to source over 52 percent of its energy from renewables by 2030, underscoring its dedication to sustainable energy development. In a similar vein, Egypt is advancing its renewable energy agenda with significant projects. The Gulf of Suez Wind Power Project, with its planned 1,100 MW capacity and a USD 1.5 billion investment from ACWA Power and The Sovereign Fund of Egypt, is a step towards realising this goal (Garcia, 2023). The Benban Solar Park, too, is poised to become one of the largest solar installations worldwide with its expanse and capacity, illustrating Egypt's commitment to increasing its renewable energy capacity (Ibid.). These initiatives are not just aimed at addressing Egypt's energy demands more sustainably; they are also pivotal in its ambition to emerge as a key exporter of renewable energy in the region.

Contrary to the EU, which benefits from a central authority capable of dictating a unified green transition agenda, the Southern Neighbourhood lacks a comparable institution with legislative power. Nonetheless, regional organisations, such as the Union for the Mediterranean (UfM), are facilitating dialogue and cooperation to foster a sustainable future for the region. The UfM is actively working towards establishing an integrated Mediterranean energy market by encouraging the adoption and production of renewable energy alongside energy efficiency. To achieve this, the UfM has initiated regional energy platforms focusing on three key areas: natural gas, the integration of electricity markets, and renewable energy and energy efficiency.

These UfM platforms are orchestrated by a suite of organisations. In a significant move in 2021, UfM energy ministers endorsed the UfM Ministerial Declaration on Energy, placing substantial focus on renewable integration. Yet, the energy ministers also acknowledged the Southern Neighbourhood's role as a dependable provider of liquid natural gas, recognised as a 'transition energy' on the path to more sustainable consumption and production patterns (UfM, 2021, p. 3). Parallel to UfM's initiatives, the African Union has enshrined its commitment to the green transition within its broader framework.

The green transition represents a crucial shift towards energy security and environmental conservation. However, countries like Morocco and Egypt, while aspiring to lead in renewable energy and clean hydrogen exports, face a stark reality. Despite their ambitions, they remain net importers of fossil fuels, with a significant portion of their own energy consumption still reliant

on these sources. This juxtaposition raises concerns about the sustainability of their transition and the risk of prioritising export opportunities over domestic green energy consumption. Their journey underscores the challenge of aligning global green energy aspirations with local energy practices.

The Mediterranean region, endowed with vast solar and wind resources, is in an enviable position to spearhead the green hydrogen industry. These resources are crucial for economically viable renewable energy production, which is indispensable for green hydrogen. Moreover, the strategic geographical position of the Mediterranean amplifies its role as a potential conduit for green hydrogen exports to both European and African markets, thereby bolstering its economic leverage and environmental contributions (Bertelsmann Stiftung, 2024).

In conclusion, the Southern Mediterranean region is ripe with opportunities for a transformative energy transition. Yet, realising this vast potential demands a comprehensive strategy that adeptly addresses the complex landscape of financial constraints, technological advancements, and geopolitical intricacies. Crucially, this endeavour calls for the active involvement of local and indigenous communities as key stakeholders in the process. Cultivating a spirit of collaboration is essential for crafting renewable energy frameworks that are inclusive and fair. Emphasising co-creation and justice in the formulation of these strategies ensures that the move towards renewable energies yields benefits across all segments of society, setting the stage for a future where sustainable energy fosters societal harmony and prosperity.

Chapter 3 | Strategies for Mutual Benefit

After exploring the economic, political, and environmental landscapes of the EU and the Southern Neighbourhood in Chapters 2 and 3, we now aim to delineate a mutually beneficial path forward for the green transition in the region. The strategy is categorised into four thematic areas. These areas form a strategic blueprint for a green energy transition that serves both the European Union and its Southern Neighbourhood in creating a sustainable energy paradigm.

The categories are:

1. Promoting regional integration and interconnection
2. Enhancing ecosystem preparedness
3. De-risking investment
4. Prioritising a just transition

The following section leverages an understanding of the requirements and incentives of both the EU and the Southern Neighbourhood through the lens of the four categories to formulate a strategy for a mutually beneficial green transition.

Regional Integration and Interconnection

To fully harness the benefits of green technology across the Mediterranean, an increased level of both physical and institutional connectivity across the region is essential. Greater effort towards integration should focus on three main areas:

5. Increased integration and connection of power grids
6. Expanded market access and economic interaction
7. Strengthened communication and cooperation

As highlighted earlier, the Southern Neighbourhood boasts significant renewable energy potential. The MENA region alone captures about one-quarter of the world's solar energy, and 75 percent of this region experiences wind speeds sufficient for industrial-scale power generation (Alami, 2023). Following the COVID-19 pandemic and in response to the conflict in Ukraine, the EU has demonstrated a heightened demand for clean energy (International Energy Agency, 2023). However, to facilitate a steady supply of renewable energy from the Southern Neighbourhood to the EU, appropriate interconnection infrastructure is critical. Currently, there are two interconnector lines between Europe and the Southern Mediterranean, both connecting Morocco and Spain, with a total capacity of 800 MW. For perspective, Spain's demand for electricity peaked at 22,052 gigawatt hours, of which Morocco could supply only 19,639 megawatt hours (Forbes, 2023; Fuente Cobo, 2023; red eléctrica, 2024). Additionally, Spain itself is only weakly integrated with the European electricity market with only a 6 percent interconnection capacity to the EU (European Commission, 2018). Spain and Morocco have agreed on a Memorandum of Understanding to construct a third line, with construction potentially starting as early as 2026 (red eléctrica, 2019). In June 2023, the World Bank approved (The World Bank, 2023b). This

project aims to build an interconnector between Italy and Tunisia, including a main converter station and substations in Tunisia. The World Bank will also offer technical assistance and establish a Centre of Excellence for Renewable Energy in Tunisia, envisioned as a training hub for renewable energy initiatives in North Africa. Additionally, the EuroAfrica Interconnector project (GREGY), which will connect Egypt, Cyprus, and Greece, is scheduled to commence in December 2028, with the first phase estimated to cost 2.5 billion euros (EuroAfrica Interconnector, 2021).

Constructing the necessary infrastructure to bridge Europe and the Southern Neighbourhood is undeniably expensive and time-intensive. Nonetheless, the benefits of integration are numerous. For instance, enhanced access to the EU's energy markets can significantly propel the sustainable development of Southern Neighbourhood countries. Given that the bulk of energy services in the South Mediterranean are state-owned, increased exports to the EU could generate vital revenue to support significant green government initiatives. Currently, more than seventy percent of public climate finance provided by developed nations is in the form of loans (OECD, 2022). Consequently, a consistent revenue stream from renewable energy exports to the EU presents an opportunity to fund green infrastructure development without exacerbating the debt burden of Southern Neighbourhood countries. In this model, expanding the renewable energy generation capacity in the Southern Mediterranean would aim not just to satisfy EU energy demand but also to significantly enhance local infrastructure and markets.

The successful integration of markets and the development of interconnection infrastructure hinge on robust communication channels among the diverse stakeholders in the region. Such communication is crucial to ensure that all initiatives are mutually beneficial. Facilitating dialogues where voices from both shores of the Mediterranean are actively heard is key to gaining a comprehensive understanding of the various needs and motivations. Platforms like the Mediterranean Sustainable Energy Investment Forum and the UfM's Regional Forums have been instrumental in hosting these essential discussions. Nonetheless, enhanced communication is imperative to foster a more collaborative and accelerated green transition.

Enhancing Ecosystem Preparedness

Beyond promoting regional integration, establishing a resilient local ecosystem is further essential for the green transition. To facilitate such an ecosystem necessitates concerted efforts across various domains of political and economic governance within the regions. On one hand, governments are tasked with cultivating an institutional environment that is conducive to green transition initiatives. This encompasses the formulation of coherent energy policies, alongside clear regulatory frameworks, standards, and approximations. A strong institutional resolve and political will to realise the green transition and meet commitments such as those outlined in the Paris Agreement Nationally Determined Contributions (NDCs) are indispensable. Concurrently, governments, the private sector, and development organisations should strive to create a conducive investment climate and support a spectrum of green initiatives, extending beyond energy to encompass green technology, water management, agriculture and food systems, sustainable tourism, and green services. Equally important is equipping the regional population with the requisite skills to drive the green transition. Comprehensive training programmes aimed at preparing the labour force for both the technical assessment and implementation of green energy initiatives are critical to ensuring the transition's success. Such optimal ecosystem preparedness can be achieved through the development and execution of comprehensive energy plans at local, national, and international levels.

Various frameworks have been employed to evaluate the EU and Southern Neighbourhood's readiness for the green energy transition. The United Nations Conference on Trade and Development (UNCTAD) released a ranking highlighting countries' preparedness for transitioning to green technology (UNCTAD, 2023). Many EU nations, particularly the economically robust countries in Western and Northern Europe, such as Sweden, the Netherlands, Denmark, France, and Germany, are ranked among the most prepared globally. In contrast, the Southern Neighbourhood generally exhibits lower levels of preparedness, with Morocco and Tunisia approximating the global average, while Libya and Algeria are categorised among the least prepared worldwide. Similarly, the World Economic Forum's Energy Transition Index (ETI) – assessing countries' current energy system performance and their transi-

tion readiness – echoes these findings. The top 10 ETI scores belong exclusively to countries in Northern and Western Europe. The report attributes their success to several key factors: reducing energy subsidies, diversifying the electricity generation mix, implementing carbon pricing schemes, and fostering a regulatory environment conducive to the green energy transition (World Economic Forum, 2023b). Conversely, Southern Neighbourhood countries are all ranked 56th or lower. The ETI underscores equity, security, and sustainability as its core tenets, with affordability, energy mix diversification, and CO2 emission reduction among its guiding indicators. These criteria could offer a practical roadmap for boosting ecosystem preparedness.

The EU and the Southern Neighbourhood hold significant mutual potential to foster conditions conducive to the green energy transition. Enhanced regional integration, encompassing economic systems as well as cultural and academic institutions, is crucial in this endeavour. Specifically, deeper integration would enable more efficient technology, knowledge, and skill transfers. Initiatives like student and researcher exchange programmes are key to cultivating a workforce that is ready and able to deliver the technical expertise and innovative solutions required for the green transition. Furthermore, the EU has the potential, given the political will, to provide substantial financial support for the Southern Neighbourhood's transition efforts. Through its diverse range of financial instruments tailored for external engagement, the EU could play a pivotal role in alleviating investment risks associated with the energy transition in the Southern Neighbourhood, thereby contributing to the enhancement of ecosystem preparedness.

De-Risking Investment

The de-risking of investments is vital for the Mediterranean region's energy transition, particularly for the Southern Neighbourhood grappling with investment risks due to social, political, and economic challenges. The aftermath of COVID-19 and a deteriorating macroeconomic environment in African countries have exacerbated these challenges, increasing the cost of capital and complicating efforts to secure funding for sustainable development projects (Ayadi and Ronco, 2023). Furthermore, the macroeconomic situation in

many African countries has significantly worsened, with the continent's average external debt increasing from 16 percent of GDP in 2011 to 31 percent in 2021 (International Energy Agency et al., 2023). This, along with currency depreciations and interest rate increases in the US and EU, has led to a doubling of debt servicing costs, which now exceed the level of clean energy investments across the continent (Ibid.). Enhancing investments in the region is crucial yet challenging. Clean energy projects typically entail substantial upfront expenditures, rendering the cost of financing a significant concern for investors, despite the potential for offsetting these costs over time through lower operational expenses (International Energy Agency, 2023). Addressing this issue requires not just the application of public funds but also the activation of private capital. The implementation of blended finance mechanisms emerges as a viable strategy to fund the energy transition. This approach is particularly pertinent in countries with limited fiscal space and high debt levels, a common scenario across the Southern Neighbourhood.

The EU has responded with several strategic initiatives like the Neighbourhood, Development, and International Cooperation Instrument (NDICI), Global Gateway, and European Fund for Sustainable Development Plus (EFSD+), alongside the announced Economic and Investment Plan under the new Agenda for the Mediterranean. These initiatives aim to catalyse investments in the region by offering concessional finance, guarantees, and blending mechanisms. Nevertheless, the transparency regarding the allocation of concessional finance (i.e., finance offered at below-market rates) within EU initiatives remains unclear, a crucial concern for countries burdened with heavy debt where favourable financial terms can significantly influence debt sustainability. Indeed, Rizzi and Varvelli (2023) highlight the need for the EU to establish clear guidelines for creditors to ensure that investments are not only financially viable but also ethically consistent with the Sustainable Development Goals (SDGs) and adhere to strict Environmental, Social, and Governance (ESG) criteria, as recommended. Despite the potential these mechanisms hold for facilitating the green transition, the complexity of accessing EU funds and ensuring alignment with SDGs and ESG standards presents notable barriers, particularly for heavily indebted nations. Moreover, the reliance on a single funding pool might restrict the overall impact

the EU can achieve. Indeed, the NDICI serves as the external action fund for all international cooperation projects within the EU framework, positioning it as the principal source of financing. The EFSD+ facilitates the blending of some of the NDICI funds to attract private investment, and the Global Gateway initiative strategically directs some of these investments towards global infrastructure development projects. Moreover, the newly announced Economic and Investment Plan (EIP) (European Commission, 2021b) for the Mediterranean is set to utilise the same funding reservoir. Nevertheless, EFSD+ and the Global Gateway should be able to leverage NDICI primary funding and complement it with more finance gathering funding from private and public sector, and from EU Member States and EU Development Financial Institutions (DFIs).

Against this backdrop, it is worth to notice that, within the Global Gateway framework, the EU is embracing innovative approaches to enhance investment flows in the region. Indeed, the Global Gateway Africa-Europe Investment Package allocates around 150 billion euros in a mix of grants and loans from the EU and bilateral aid from EU member states (European Commission, 2023b), designed to spur additional private and public sector investment from Europe. By employing blended finance and guarantees to share the risks of investment, the EU aims to lower the barriers for private investors' entry. Key energy projects for the Southern Neighbourhood have already been announced under this framework. Moreover, within the package there is also a strategic proposal for the use of Special Drawing Rights (SDRs) (European Commission, 2024b), with the potential to significantly improve the investment environment for countries in the region. Mechanisms to reduce the debt load represent an opportunity for countries to shift fiscal resources towards bolstering economic resilience against forthcoming challenges, and into health, education, and social safety nets, thus contributing to sustained social and economic stability. It is important to recognise that such social and economic stability is not merely a desirable outcome but a prerequisite for meaningful investments into the green transition. A stable social and economic environment creates the necessary conditions for green initiatives to flourish, ensuring that investments in sustainable development are both effective and long-lasting.

In summary, while the EU's frameworks and initiatives offer significant potential to de-risk investments in sustainable energy projects within the Southern Neighbourhood, streamlining access to these funds and enhancing project alignment with broader sustainability goals are critical. Ensuring equitable benefit sharing and fostering a 'just' transition remain essential to avoid extractive investment relationships and truly support the region's sustainable development.

Just Transition

Countries across the Southern Mediterranean, especially those historically dependent on energy imports, are crafting long-term strategies to draw investments, predominantly in solar, wind, and hydrogen sectors. Given the limited fiscal capacity of these countries, the ability to attract significant investments from neighbouring regions and establish public-private partnerships (PPPs) is critical. However, while PPPs with foreign entities are crucial for initiating necessary investments, they also carry the risk of leading to 'green colonialism' and 'green grabbing' (Hamouchene, 2022). In terms of colonial concerns, there are instances where sizeable renewable energy investments are seen to benefit external trade partners more than local communities (Hamouchene, 2016), raising questions about fair benefit distribution. A primary issue associated with 'green grabbing' is the demand for extensive land, water, and natural resources by large-scale renewable projects. This is particularly problematic in areas facing severe water scarcity, like the Southern Neighbourhood, where water-intensive technologies may worsen local resource limitations, negatively affecting community access to essential resources, exemplified by projects like the Noor Solar Power in Morocco. Furthermore, the expansion of renewable infrastructure risks disenfranchising indigenous communities, potentially stripping them of land traditionally used for grazing, agriculture, or cultural practices. These challenges highlight the imperative for an inclusive approach to renewable energy projects, one that safeguards local community rights, ensures access to resources, and aligns with sustainable development objectives. To achieve a truly just transition, it is essential that the shift towards renewable energy avoids perpetuating extractive colonial dynamics and fosters equitable, sustainable growth for all stakeholders.

A 'just' energy transition necessitates clear, fair, and transparent processes regarding land ownership, licensing, and public procurement, coupled with substantive community engagement. To effectively address the challenges of transitioning in the region, emphasis must be placed on fostering transparent public dialogues and developing programmes aimed at enhancing skills relevant to clean energy transitions. Additionally, supporting the emergence of new job opportunities in more sustainable sectors is crucial (International Energy Agency et al., 2021). Incorporating local communities into the project development phase is essential and requires the establishment of specific frameworks that set standards for community involvement and benefits. This approach helps prevent community exclusion and ensures that projects align with both local necessities and global sustainability goals. The EU is well-placed to adopt the Team Europe approach (European Commission, 2024c), which promotes collaboration with partner governments and civil society organisations (CSOs), embracing co-creation as a method to fulfil the aforementioned criteria and improve the overall investment climate.

EU initiatives aimed at Southern partners are often viewed by African stakeholders as being Eurocentric, primarily serving European interests with insufficient consultation with partner countries (Ayadi and Ronco, 2023). This highlights the need for a more inclusive strategy that fully integrates the views and requirements of partner nations, ensuring EU-funded projects foster sustainable development in a way that is respectful, inclusive, and advantageous for all stakeholders (Weiss et al., 2023). Furthermore, it is crucial to safeguard national interests against potential tax evasion by multinational corporations, ensuring that the profits generated from using a country's natural resources are equitably shared (Mager, 2023; TJN, 2023). The Tax Justice Network reports that corporate tax abuse results in annual tax losses of approximately 0.1 percent of GDP for Egypt, 0.7 percent of GDP for Morocco, and 0.6 percent of GDP for Tunisia (Ibid.). The EU has the opportunity to establish frameworks that promote and ensure transparent agreements between European companies and Southern partners. These frameworks could include clauses that mandate tax responsibility, alongside community and environmental protection, fostering a fairer and more transparent investment climate.

The significance of achieving a just transition both within the EU and its Southern Neighbourhood cannot be overstated. It is imperative to confront the complexities and hurdles discussed, including the potential for exacerbated natural resource exploitation, the threat of green colonialism, and the risk of local and indigenous communities being sidelined from the benefits. By committing to meaningful, on-the-ground

engagement, ensuring the equitable distribution of benefits, and tackling the existing disparities in energy access, we can navigate towards a truly just transition. This approach will not only address these challenges but also lay the groundwork for a strategy that fosters mutual benefits and sustainable collaboration between the EU and its Southern Neighbourhood.

Policy Recommendations

In conclusion, this study underscores the critical importance of fostering equal partnerships in the green energy transition. The intertwined futures of the EU and its Southern Neighbourhood highlight the potential for mutual benefits through cooperative engagement in green energy projects. This document has detailed the vital roles of technological cooperation, equitable partnerships, and the promotion of an efficient green transition rooted in shared interests and values. Such collaborative efforts are indispensable for achieving regional resilience, ensuring future energy security, and safeguarding the environment. To this end, the study puts forward three key policy recommendations.

1. Strengthen the tools available and coordinate with international and regional players

Improve coordination and communication between all stakeholders involved. As enumerated throughout the study, the European Union has a wide range of funds, plans, and directives that may be leveraged to support partnerships for the green transition with the Southern Neighbourhood. NDICI, ESFD+, Global Gateway, and the Economic Investment Plan for the new Agenda for the Mediterranean all hold great potential for financial growth in the renewable energy sectors. For these tools to be fully effective, it is imperative that they are transparent and accessible to all relevant stakeholders. This requires improved coordination and communication between EU institutions and EU member states to provide a sound alignment among all the programmes and funds. Moreover, the EU institution should better coordinate with national governments in the Southern Neighbourhood leveraging on the Joint Programming and Team Europe approach.

Get the private sector involved. Additionally, involvement in projects and schemes must move beyond the

public sector. The green energy transition cannot be executed without private capital, and while the existing plans, such as the Global Gateway already involve the private sector, it may benefit from a bigger involvement of philanthropic players and international private corporations specialising in energy. Moreover, enhancing cooperation among international players involved in financing energy transition is integral to ensuring that existing tools achieve their maximum benefit, including Multilateral Development Banks (MDBs).

Enhance and refocus the Joint Programming and Team Europe Approach. While the Global Gateway does not present a specific regional plan for the Mediterranean, the implementation of the Economic and Investment Plan (EIP) for the Southern neighbours can act as a catalyst of investment cross-cutting several Global Gateways Areas. For what concerns energy transition to ensure a just allocation of funds the enhancement of the Joint Programming and Team Europe Approach should be at the core of the EIP implementation together with a transparent CSOs involvement. Moreover, the Joint Programming should focus on strengthening regulatory frameworks to encourage the private sector engagement, with again transparent regulation in access and monitoring funds and projects.

2. Foster Innovation, Capacity Building, and Knowledge Sharing:

Launch initiatives within existing frameworks like ERASMUS+ to bolster green skills and facilitate educational exchanges and knowledge transfer. This recommendation aims to strengthen local capacities in sustainable practices, climate resilience, and green technology innovation. It encompasses developing programmes for joint research, technology-sharing agreements, and educational collaborations to enhance innovation and ensure that workforce development

aligns with the evolving needs of the green energy sector, creating more valuable jobs.

Moreover, to further enhance the transition to sustainable energy in the Mediterranean, expanding the scope and scale of programs like PRIMA (Partnership for Research and Innovation in the Mediterranean Area) and Horizon Europe is essential to specifically address research and development needs in energy transition for the Mediterranean region. Bilateral EU-Neighbourhood country partnerships, similar to the groundbreaking EU-Morocco Green Partnership agreement from October 2022 can be a powerful tool to enforce such an expansion. The EU-Egypt declaration for a strategic partnership launched in March 2024 (European Commission, 2024d) contains some positive aspects in this direction (renewables to boost energy transition, energy connectivity, energy efficiency, skill partnerships, fairer trade conditions) but lacks focus.

Establish partnerships with technology providers, research institutions and universities to facilitate the flow of cutting-edge renewable energy technologies into the region. This could include setting up innovation hubs or centres of excellence focused on renewable energy, providing technical training, and supporting joint ventures between local and international companies. Policies that incentivise research and development within the region and frameworks that protect intellectual property while ensuring access to technologies are also essential. These initiatives can be developed under the Global Gateway's area of partnership on "Action and Research" supporting the e AU-EU Innovation Agenda (Global Gateway, 2023).

Redefining Relationships: The Role of Green Energy in EU-Southern Neighbourhood Partnerships

The study at hand points out a critical pathway through which the EU and its Southern Neighbourhood can significantly strengthen their bilateral relations: through equitable green energy cooperation. By embarking on a journey towards renewable energy sources, both regions stand at the cusp of transforming not only their energy landscapes but also their political and economic interactions. This shift offers a platform for moving past historical imbalances, fostering a partnership grounded in mutual respect, shared

3. Implement Policies to Ensure a Just Transition:

Advocate for policies that ensure equitable benefits from green projects, focusing on protecting the rights and livelihoods of local and indigenous communities. This involves ensuring community involvement in the transition process, safeguarding access to resources, and supporting equitable and sustainable growth. All countries in the region should ensure meaningful community involvement throughout the entire green project lifecycle, from initial planning and design to implementation and monitoring.

Create formal platforms for engagement, including guaranteed consultations for all energy-related policy-making. These consultations should be culturally appropriate, accessible, and transparent, incorporating the knowledge and perspectives of local and indigenous communities. Moreover, all the countries in the region should recognise and uphold the traditional rights of local and indigenous communities to access and manage natural resources. Green projects should not displace communities or restrict their access to vital resources like water, land, or traditional fishing grounds. It is worth to notice that while citizens may express broad approval for renewable energy goals specific implementations often face local opposition, a phenomenon known as NIMBY "Not In My Backyard". This discrepancy underscores the importance of effective communication and community involvement in planning and implementing such projects, as also the exploration of innovative cooperative models to involve residents in decision-making processes and offer them a stake in the project's benefits, such as profit sharing from energy generation, fostering a sense of ownership and community around the solution.

benefits, and collective progress towards climate neutrality and energy security.

Central to this cooperative endeavour is the notion of equity – ensuring that the transition to green energy not only addresses the EU's environmental and energy security needs but also serves as a catalyst for economic development, technological advancement, and sustainability in the Southern Neighbourhood. The study highlights the indispensable role of collaborative

efforts in green technology transfer, capacity building, and the development of innovative financing mechanisms. These initiatives are pivotal in creating a resilient and sustainable energy infrastructure that benefits both regions.

By redefining the dynamics of their relationship through the lens of green energy cooperation, the EU and its Southern Neighbourhood can establish a more

integrated and equitable partnership. Such a partnership recognises the Southern Neighbourhood's crucial contribution to shared objectives, including energy security and the global pursuit of climate neutrality. The strategies and recommendations advanced in this paper propose a roadmap for a fair and cooperative green transition, emphasising the importance of aligning efforts with the broader goals of sustainable development and mutual prosperity.

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