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## Revamping the Euro-Mediterranean Energy and Climate Space

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& Ignacio Urbasos  
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ISSN: 2255-5293  
Depósito Legal: M-8692-2013

# Elcano Policy Paper

## Revamping the Euro-Mediterranean Energy and Climate Space

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## Energy Diversification

1

The Mediterranean is a core geography in the EU's oil and gas diversification from Russia. Diversification efforts must include sustainability criteria to avoid generating stranded assets, reduce upstream emissions and integrate renewables.

2

EU's energy diversification efforts in the Mediterranean must be conceived as an economic, industrial and social opportunity that extends to decarbonisation and the integration of new low-carbon industrial value chains.

3

Much needed European investments, both in the fossil and low carbon sectors, are likely to be limited without far-reaching energy reforms: reaping the opportunities of the energy transition requires significant institutional and infrastructure upgrading.

## Decarbonisation

4

The Mediterranean should be a strategic region in the implementation of the Net Zero Industry Act and the Critical Raw Materials Act. Mediterranean Partner Countries (MPCs) must be part of EU's open strategic autonomy, including industrial and transition minerals in existing and new trade agreements.

5

It is essential to help MPCs benefit from new friend-shoring processes, given their geographic proximity and relative low energy and labour cost. MPCs included in a Euro-Mediterranean FTA could qualify for an exception regarding potential local content requirements, furthering the integration of renewable and decarbonised industrial chains.

6

The Mediterranean Green Hydrogen Partnership should prioritise cost-competitive decarbonisation of MPC's industries. It is urgent to reformulate the EU's hydrogen diplomacy in the region, prioritising local wealth creation over export-oriented mega-projects replicating fossil rentier patterns.

## Climate Action

7

**Cooperation and (gradual) convergence.** Institutional cooperation could be strengthened by creating a Euro-Mediterranean Network of Climate Change Offices (ECNOO) and expanding (indefinitely) ClimateMed and meetMed. Exchanges and mutual learning could foster further gradual climate legislative and regulatory convergence

8

**Funding:** Scaling up balancing and adaptation and mitigation finance, developing inclusive and fair Just Transition Energy Partnerships and funding climate awareness and self-efficacy projects to enhance climate policy acceptance.

9

**Loss and Damage collaboration.** Establish a regional dialogue for the management and compensation of Losses and Damages (L&D) caused by climate change both within the EU and in MPCs.





# 1 Introduction<sup>1</sup>

Russia's invasion of Ukraine has radically changed the European energy landscape. While continuing to lead the energy transition, the EU needs to rapidly rebalance its energy supplies. The publication of the REPowerEU plan by the European Commission outlined a clear roadmap: accelerating the energy transition and reducing hydrocarbon imports from Russia to zero well before 2030 (Commission, 2022a), with the Mediterranean Basin playing a key role in fossil and renewable diversification efforts. In parallel, Mediterranean Partner Countries (MPCs) seem to have entered a new phase of revitalised interest in renewable energy and in hydrogen deployment, their climate mitigation plans are being reviewed and their need to enhance climate adaptation capacities is increasingly urgent.

This new energy context urges rethinking Euro-Mediterranean relations in both the short and the long terms. In the short term, by integrating Europe's Mediterranean neighbourhood into EU's immediate energy diversification efforts. In the long run, by fostering fruitful long-term relations that prepare the region for a decarbonised development model aligned with the European Green Deal (EGD) and the Paris Agreement. The current situation in both Europe and the MPCs requires the EU to develop a new strategic approach to the region, which has so far been ineffective in relaunching the Euro-Mediterranean project (Escribano & Lázaro, 2020). Implementing this strategic reorientation towards climate and renewable cooperation in the Mediterranean can yield appealing decarbonised interdependence patterns that complement the existing fossil fuel-based relations before gradually replacing them in the long run.

This Policy Paper proposes three drivers for the renewal of the Euro-Mediterranean energy script: diversification, decarbonisation and climate action. The paper is structured as follows. Section 2 briefly analyses the key trends in Euro-Mediterranean energy relations and how the Russian invasion of Ukraine has increased the relevance of the Southern Neighbourhood for the EU. The third section explains how climate change is impacting the region and summarises the recently announced climate and renewable targets of the MPCs. The fourth section focuses on the geopolitics of both fossil fuels and decarbonisation, including electricity exchanges and the implications of the Carbon Border Adjustment Mechanism (CBAM). Based on the previous results, section 5 identifies three areas in which Euro-Mediterranean cooperation is developing and reflects on how it could be strengthened: the EU's fossil diversification, the deployment of renewable and other low-carbon technologies, and institutional climate cooperation and engagement. The last section summarises the results and offers some policy recommendations.

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<sup>1</sup> The authors would like to thank the members of the Energy and Climate Programme Working Group, and in particular Cristina Moral and David Gallardo, for their valuable input and comments.



## 2 A fragmented Euro-Mediterranean Energy Space

In 1995, the EU and Southern Mediterranean partners committed to turning the Mediterranean basin into an area of dialogue, exchange and cooperation, guaranteeing peace, stability and prosperity in accordance with the Barcelona Declaration. While energy, and more recently climate, have been repeatedly proposed as key drivers for Euro-Mediterranean cooperation (Rhein, 1997; Escribano, 2010; Tagliapietra, 2016), almost three decades later the EU has not been able to offer the Maghreb and the Eastern Mediterranean appealing energy cooperation pathways, be they fossil or renewable. As for climate cooperation, several initiatives such as Depollution of the Mediterranean (which includes climate adaptation), ClimaSouth and Clima-Med (Shyrokykh, Dellmuth & Funk, 2023) and Cities for Climate (C4C) have sought to enhance capacity building, legislative and policy convergence, knowledge exchange and to facilitate access to climate finance, with varying degrees of success (Katsaris, 2015). The EU has failed to extend its model of multilateral cooperation, suffering diplomatic setbacks in its attempts to advance a regional project. Amid the current energy crisis, the state of Euro-Mediterranean energy relations and its prospects are afflicted by a sense of fatigue, and countries are increasingly focusing on bilateral solutions.

In the last two decades, the EU's most ambitious energy diplomacy initiatives had to be abandoned because of their lack of realism or inadequacy for the region's dynamics, like the Euro-Mediterranean energy ring, the Mediterranean Solar Plan (the EU version of the DESERTEC project) or the extension of the Energy Community to the region. The common element across these projects was the focus on exporting energy from MPCs to Europe instead of supporting the EU neighbourhood in meeting their booming energy demand in a sustainable way (Tagliapietra, 2018). Even some of the gas projects that successfully materialised are now operationally paralysed due to geopolitical issues, such as the Maghreb-Europe Pipeline exporting Algerian gas to the Iberian Peninsula, or largely idle, like the Greenstream, bringing Libyan gas to Italy. The lack of success in these projects represents the end of momentum for energy integration via natural gas in the Maghreb that started in the 1990's, aimed to emulate the accomplishments of Europe through coal and the ECSC.

Mega-projects were accompanied by weak institutions, like the so-called gas, electricity and renewables platforms supported by the Union for the Mediterranean (UfM): the MEDREG, a collaborative platform for energy regulators; and MED-TSO, a technical platform of the Mediterranean Transmission System Operators (Rubino, 2015). More regionally focused alternative schemes, such as the 5+5 initiative constituted by the 10 countries bordering the Western Mediterranean lack sufficient traction, mainly because of the different views of its members on both shores regarding energy and the absence of economic tools that exclusively rely on EU hands, like the EU's trade agreements or cooperation funds (Escribano, 2017). These platforms have been largely unable to deliver a Euro-Mediterranean energy policy space, suffering from a short-sighted and simplistic vision of the complexities involved in the region's energy interdependencies.

The deep political divide in the Southern Mediterranean itself has further hindered the operability of these institutions, hampering necessary processes such as functional energy integration through cross-border infrastructures, the liberalisation of the Mediterranean neighbours' energy sector and the convergence of their regulations with European norms, delaying their energy transition (Escribano & Lázaro, 2020). The EU's 2016 Foreign and Security Policy commitment to 'principled pragmatism' did not lead to significant changes in regional energy dynamics and the gradual loss of European influence continued until the Russian invasion of Ukraine unleashed an unprecedented energy crisis.

The credibility crisis of Euro-Mediterranean relations is not restricted to energy. It spans the broader economic dimension of the relations after 25 years of low-intensity free trade that has limited the access of Southern Mediterranean agricultural products and workforce to EU markets. There has also been limited European investment in the region, with a few exceptions such as Morocco and Tunisia, where the EU has led inward FDI flows in the 2003-19 period (OECD, 2021).

The exhaustion of European influence in the Mediterranean has opened the door to the entry of new players in the energy sector, a phenomenon that reflects the new reality of the North African and Middle Eastern regional system after the 2011 Arab uprisings of 'competitive multipolarity', in which several regional and external actors compete in variable alliances, introducing overlapping geopolitical dynamics (Kausch, 2015). Russia and Turkey have tried to benefit from the geopolitical situation in the region, successfully challenging the EU's energy influence in Libya or Syria (Tekir, 2020). China is also increasingly relevant in the region through its Belt and Road Initiative (BRI), with a growing presence in the Algerian energy and petrochemical sectors since 2014, when both countries signed a 'Comprehensive Strategic Partnership' (Hamaizia, 2020). In the case of renewables, Gulf Cooperation Council strategic funds such as Masdar and ACWA have spearheaded the financing of mega-projects, particularly in Morocco and Egypt.

## 3 Climate change and climate action in the Mediterranean

The Mediterranean is known to be a climate hotspot (Galeotti, 2020; European Commission, 2021b) which is warming 20% above the global average and 50% in summer (Azzopardi *et al.*, 2020; MedECC, 2020; UNEP, nd), with the Middle East and North African (MENA) region potentially becoming scorching hot under high emission scenarios (Lelieveld *et al.*, 2016). According to the Intergovernmental Panel on Climate Change (IPCC) (2022), at 2°C global warming and above, the Mediterranean region can be expected to experience increases in hydrological and agricultural droughts with negative effects on agricultural yields and hydropower generation while increasing space-cooling and desalination energy demand (Szewczyk *et al.*, 2020). The Mediterranean is also expected to experience further aridity, more frequent and severe weather extremes, decreases in precipitation, in snow cover and in wind speed, in addition to fire weather.

Under high-emission scenarios, night temperatures in the MENA region could reach over 30°C by mid-century and 34°C by the end of the century. Daytime temperatures could reach 47°C by mid-century and almost 50°C by 2100. The average duration of warm spells could exceed 100 days by mid-century and 200 days by the end of the century. Should these projections materialise, the region could become uninhabitable, with severe human security consequences (Lelieveld *et al.*, 2016; MedECC, 2019). The recent draught (2021-22) in the Western Mediterranean has shown how challenging climate adaptation might be. For instance, in Morocco cumulative rainfall in the period prior to sowing of winter crops (September to November 2022) was 50% to 80% below the long-term average (LTA), (Manfron, *et al.*, 2023) leaving farmers facing the worst drought in 30 years and forcing the government to increase grain imports and subsidies (Saleh, 2023). Since climate-change-associated trends in the Mediterranean Basin exceed global ones for most variables (Azzopardi *et al.*, 2020; Bleu, 2008), both mitigation and adaptation efforts are particularly urgent.

### 3.1. Climate change mitigation

Since 2020 most MPCs analysed have reviewed their climate targets as reflected in their updated Nationally Determined Contributions (NDCs), with several points in common: most of them lack absolute emission reduction targets –referring instead to a business-as-usual (BAU) scenario or to reductions in carbon intensity–, they do not generally have a net-zero emissions target and their strategies are conditional on external (financial and capacity building) support (see Box I). While conditionality may be perceived as a barrier to greater ambition, it also offers a space for Euro-Mediterranean cooperation on green financing, investment and capacity building. Climate support appears to be a genuine space for the effective implementation of the Global Gateway, which should be defined in terms of cooperation vs competition with other relevant actors in the region’s energy transition: mainly members of the Gulf Cooperation Council (GCC) and China.

Recent examples of cooperation, that could be expanded to the MPCs, include the Just Energy Transition Partnerships (JETPs) with South Africa, Vietnam and Indonesia; with other countries such as India and Senegal expected to join this nascent cooperative energy transition funding instrument (Kramer, 2022). In a context of weakened multilateralism, JETPs offer opportunities for minilateral cooperation that, if successful, generous (with more emphasis on grants rather than loans), inclusive and truly just, could generate examples of fruitful climate and energy engagement in the region.

### **Box 1. Latest NDCs in Southern Mediterranean Partner Countries**

One of the characteristics of the recent (2020-22) development of NDCs in the Southern Mediterranean is the heterogeneity of their target design (see Figure 1). The diversity in metrics, benchmarks and objectives makes it complex to compare the level of ambition of the different regional actors. Some convergence in the type of NDCs may occur in the future, as called for by Article 4.4 of the Paris Agreement, which recommends Parties to shift 'towards economy-wide emission reduction or limitation targets' (OECD, 2018).

The most recent case is the Egyptian NDC published in July 2022 as a prelude to its COP27 Presidency. Egypt presented its updated NDC expressing for the first time its reduction commitments quantitatively and with differentiated targets for the power, transport and oil and gas sectors (33%, 7% and 65% by 2030 respectively versus BAU). These targets were conditional on receiving international support amounting to US\$246 billion, equivalent to 60% of Egypt's 2021 GDP.

Lebanon and Jordan updated their NDCs in 2021, substantially increasing their climate ambition but demanding an undefined amount of international assistance. Lebanon (Lebanon NDC, 2021) committed to an unconditional 20% reduction in GHG and a 31% conditional reduction in GHG emissions in 2030 compared with the projected BAU scenario. Jordan's NDC (Jordan NDC, 2020) foresees a 31% emission reduction target, 5% unconditional and an additional 26% conditional by 2030 below a BAU scenario calculated for the 2012-30 period.

Turkey finally ratified the Paris Agreement in October 2021, submitting its 2015 Intended Nationally Determined Contribution (INDC) as its first NDC. In it, Turkey pledges to reduce its GHG emissions (including those from Land Use, Land Use Change and Forestry, LULUCF) by up to 21% compared with a BAU scenario by 2030. Turkey will need to submit an updated NDC target to be in line with the Paris Agreement and its net-zero emissions target for 2053 (Tastan, 2022). Israel published its Climate Law, in 2021 setting a net-zero target by 2050. It also updated its NDC in 2021, aiming at a 27% reduction in GHG emissions below 2015 levels.

In the Maghreb, Morocco's latest updated NDC was submitted in 2021. It strengthens its 2030 goals, enhancing conditional and unconditional emissions reduction targets to 45.5% and 18.3% respectively below a revised BAU scenario by 2030 versus 2010 (Morocco NDC, 2021). Algeria's NDC has not been updated since 2016, setting an unconditional GHG emissions reduction target of 7% and a conditional target of 22% compared with a BAU scenario by 2030, indicative of the difficulties Algiers is experiencing in transitioning away from the fossil paradigm. Tunisia pledged a reduction in carbon intensity (CO<sub>2</sub>e per unit of GDP) of 45% by 2030 compared with 2010 and an unconditional reduction in carbon intensity of 28% by 2030 compared with 2010 carbon intensity levels.

Source: the authors based on selected MPCs NDCs.

**Figure 1. General mitigation contributions in MPCs, by scope, type, and target**

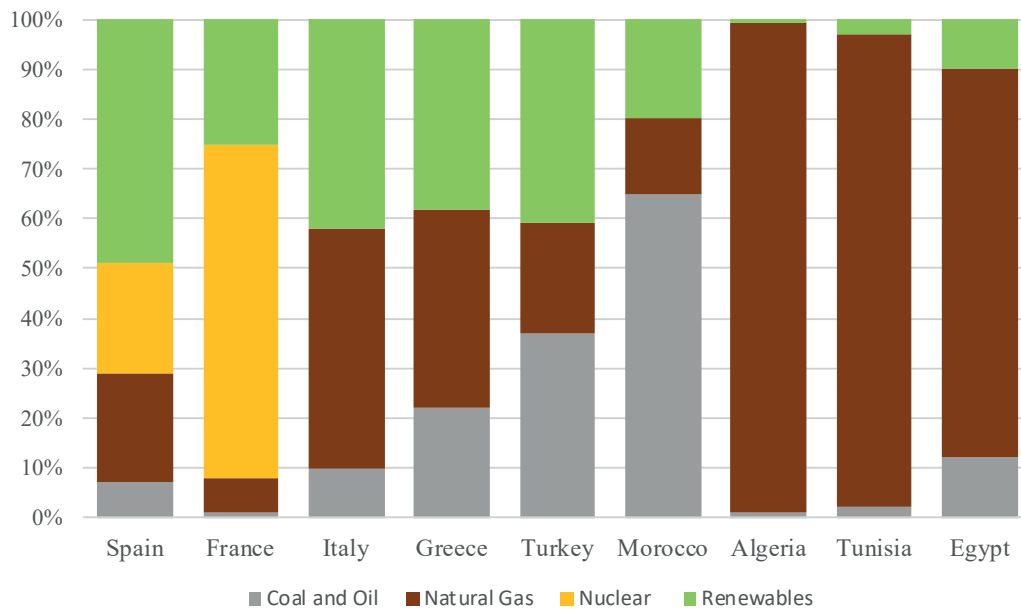
	Scope of the contribution	Type of GHG target	GHG reduction target			GHG emissions			
			Unconditional Reduction	Conditional Reduction	Combined reduction	2015 Historical level	BAU 2030	Combined target 2030	Net Zero
			% in 2030 vs GHG target			Mt CO <sub>2</sub> EQ			
Algeria (2016)	Economy-wide	BAU reference	7	15	22	197	279	217	No
Egypt (2022)	Multi-sector	BAU reference	NA	Power sector 33%, Oil and Gas 65% and Transport 7%		325	NA	NA	No
Israel (2021)	Economy-wide	GHG emissions 2015	27	NA	27	79	NA	57	2050
Jordan (2020)	Economy-wide	BAU reference	5	26	31	32	38	26	No
Lebanon (2021)	Economy-wide	BAU reference	20	11	31	24	39	30	No
Morocco (2021)	Economy-wide	BAU reference	18.3	27.2	45.5	87	142	77	No
Tunisia (2021)	Economy-wide	Emission intensity/GDP in 2010	27	18	45	34	49-9	31	No
Turkey (2015)	Economy-wide	BAU reference	21	NA	21	449	1175	929	2053

Source: the authors, based on Crumpler *et al.* (2022); updated with NDC targets of selected countries.

Despite the MPCs’ abundant renewable resources, the deployment of renewable energies has been slow compared to other Euro-Mediterranean regions (see Figure 2). The energy crisis seems to have triggered an enhanced renewable ambition in fossil-fuel importing countries (Morocco, Lebanon and Jordan) and in producers with rapidly growing domestic electricity demand that threatens to limit lucrative fossil exports (mainly Egypt) (see Figure 3). Morocco, the biggest MPC without significant fossil-fuel production, has been a regional pioneer in renewable energies, notwithstanding the weight of coal in its electricity mix (65%) and recent coal capacity expansion. Morocco is the only country in the region that sets its renewable target in terms of installed capacity (as opposed to the more common metric of electricity generation): it expects to reach 52% of renewables in the total capacity of its electricity system by 2030. This ambitious goal faces several barriers. First, a significant part of the planned renewable projects are in the Western Sahara, entailing potential reputational risks for developers and investors. Secondly, after a strong commitment to coal over the past decade –with the construction of the Jerada, Safi and Nador plants–, Morocco runs the risk of ending up with technological and emission lock-in, as well as with significant stranded assets (Fragkos, 2023).

Tunisia and Algeria set 35% and 27% renewable power generation goals respectively by 2030. The rapid increase in domestic demand and the almost non-existent experience in the development of renewables (especially in the Algerian case) expose other important barriers to achieving the targets. Decentralised solutions start to be deployed despite the absence of support schemes, but low income, domestic content requirements and generous electricity subsidies constitute significant barriers that have prevented the achievement of the renewable targets set in previous national plans in Algeria and Tunisia.

**Figure 2. Electricity generation mix of selected Mediterranean countries in 2020**

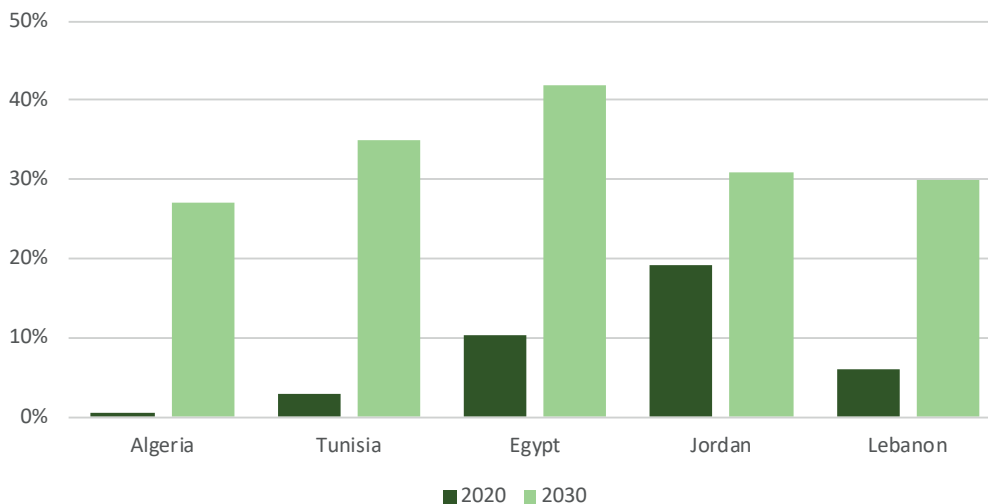


Source: IEA Data, 2020.

Rapidly falling renewable generation costs have led Jordan and Lebanon, which suffer from a growing energy trade deficit, to substantially increase their renewable ambitions. In Jordan's case its 31% renewable generation target set in 2021 is expected to be raised to 50% in 2023; and in Lebanon, severely affected by a power crisis, to 30% by 2030. As is becoming standard practice among countries presiding over climate summits, Egypt increased its renewables target to 42% as a sign of its commitment in the run-up to COP27 at Sharm el-Sheikh.



**Figure 3. Renewable energy penetration in the electricity mix in 2020 and stated ambitions for 2030<sup>2</sup>**



Source: IEA Data, 2020, and selected countries' NDCs.

The regional decarbonisation of transport, a key high emitting sector in Northern Mediterranean Countries (NMCs), is even more challenging in MPCs due to the high subsidy levels for fossil fuels and the low disposable income available for both the purchase of new electric vehicles and their related infrastructure (eg, chargers). Industrial decarbonisation seems equally complex due to the historical entanglement of industry in fossil-fuel production in the region's main industrial players: Algeria and Egypt. Morocco and Egypt's recent decarbonisation roadmaps have nevertheless included hydrogen-associated industrial sectors such as phosphates, steel and cement.

Regarding carbon pricing, the single experience beyond the European Emission Trading System (EU ETS) in the region is Israel's carbon tax, which will be gradually introduced from 2023 to 2028 and is expected to cover around 80% of the country's greenhouse gas emissions. Morocco does not have a carbon price, but according to the OECD (2022) its fuel excise taxes act as an indirect carbon price and covers 37.9% of GHG emissions in 2021. Turkey, with a measurement, reporting and verification (MRV) system that is similar to that of the EU's ETS, lacks a roadmap for establishing a carbon price despite being one of the countries expected to be severely affected by CBAM in relative terms (Acar *et al.*, 2022). Countries like Morocco are rather opting for a system of certification in their CBAM affected sectors, mainly green fertilisers, but also green hydrogen and electricity exports in the longer run. If not adequately addressed, this new carbon geopolitics (and its associated geo-economics) risks further fragmenting the Euro-Mediterranean energy and climate space.

<sup>2</sup> Morocco sets its renewable target as a percentage of installed capacity instead of as the preferred 'percentage of electricity produced' metric of its regional peers.

### 3.2. Climate change adaptation

Adaptation, which is the countries' response to climate impacts and should (ideally) be followed by the evaluation of such a response (Leiter, 2021), is generally addressed in countries' NDCs. Globally, 80% of NDCs submitted by 23 September 2022 included adaptation and focused on: vulnerability to climate impacts, adaptation-related research, measures to address climate impacts, and synergies between mitigation and adaptation efforts (UNFCCC, 2022a). Whereas mitigation actions are mediated mainly through the energy and Land Use, Land Use Change and Forestry (LULUCF) sectors, adaptation is overall addressed in countries' NDCs mainly through actions related to water and agriculture, infrastructures, health, ecosystems and behavioural changes, with research playing a key role.

In Mediterranean countries such as Algeria, Egypt, Jordan, Lebanon, Morocco, Tunisia and Turkey, adaptation implies:

- Addressing water shortages and improving water management, water re-use and waste-water treatment.
- Fostering water cooperation with neighbouring countries.
- Improving resilience to extreme weather events (floods, droughts, etc).
- Developing National Adaptation Plans (NAPs).
- Increasing the resilience of agriculture and livestock production.
- Reviewing land-use policies to take into account sea-level rise and land degradation.
- Developing Integrated Coastal Zone Management (ICZM) practices, reinforcing infrastructure.
- Developing nature-based solutions (NBS).
- Strengthening monitoring and early warning systems, developing crisis management systems and providing information to citizens.

To implement both mitigation and adaptation actions the selected MPCs analysed require substantial investment and international climate finance. For instance, the Egyptian NDC indicates that article 9 of the Paris Agreement –requiring developed countries to provide support to developing countries– should materialise for the country to meet its conditional climate commitments. This would entail US\$246 billion<sup>3</sup> in climate finance being disbursed to Egypt, which is more than 2.4 times the annual international climate finance pledged globally from 2020 onward (US\$100 billion).

At COP 27 the gap between the US\$100 billion a year pledged from 2020 to 2025 by developed countries to developing countries (with an upward revision of the pledge ongoing) and the amount delivered was once again highlighted. Beyond the US\$100 billion goal, the key challenge for Mediterranean countries, as well as globally, is scaling up international climate finance and aligning financial flows with climate goals, in accordance with article

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<sup>3</sup> Please note billion = 10<sup>9</sup>.

2.1.c of the Paris Agreement. The scaling up and alignment of financial flows will require the reform of the financial system as well as engaging the banking sector, institutional investors and governments, as recognised by Prime Minister Mia Mottley's Bridgetown Initiative (Ministry of Foreign Affairs and Foreign Trade, Barbados, 2022). Increased cooperation on adaptation is a key part of enhancing the credibility and coherence of the Euro-Mediterranean discourse.



## 4 Recent Euro-Mediterranean energy trends and EU decoupling from Russia

The current EU urgency to revive Euro-Mediterranean energy cooperation unfolds against the backdrop of fragmentation, unfulfilled expectations and missed opportunities in both energy and climate cooperation initiatives, as described above. The Russian invasion of Ukraine highlighted the urgency of seeking alternative gas suppliers, increasing the strategic importance of traditional Mediterranean natural gas producers such as Algeria, Egypt (now also exporting Israeli natural gas) and Libya.

This comes after a decade in which the European Commission welcomed growing competition from US and Russian liquefied natural gas (LNG) in the Mediterranean (see Euro-Mediterranean Energy Map) and pushed for euro-denominated gas indices delinked from oil. The EU's climate commitments sent strong signals about the future of the European market in the long term, forcing Mediterranean hydrocarbon-producing countries to search for new export destinations and upstream investors. No appealing and credible proposals came from the EU regarding the financing of its Mediterranean neighbours' energy transition or their role in a decarbonised European energy system (eg, as transitional gas exporters, renewable partners or blue or green hydrogen producers).

Recent Euro-Mediterranean energy trends are characterised by the European efforts to re-engage Mediterranean oil and gas exporters in diversifying away from Russia while promoting new decarbonised patterns of energy interdependence with its Southern neighbours. The strategic turn in the EU's external action to gain energy and industrial autonomy may erect new long-term barriers in the fossil realm but is also offering new opportunities in the areas of renewable deployment and decarbonised industrial value chains.

### *4.1. Re-engaging Mediterranean oil and gas exporters*

Among oil and gas exporters, the case of Algeria is paradigmatic. Over the last decade, Algeria saw European markets shifting towards cheap US LNG imports and away from long-term pipeline contracts. As a response, the long-term strategy presented in 2018 by Sonatrach, labelled SH2030, aimed to divert 50% of exports to Asian markets at the expense of Europe. After distancing itself from the EU, the energy crisis has evidenced the strategic value of Algeria as a key gas producer, especially considering the country's vast reserves and existing infrastructure. Despite historical ties between Algiers and Moscow, leaders from Italy, France and Germany have visited the country in recent months in the hope of being able to secure increased volumes of gas and crude oil.

This rapprochement comes after a decade of failed EU efforts to bring about liberalisation measures in Algeria's economy and politics, including the energy sector, as well as deploying additional renewable capacity. To date, the Algerian political elite has made limited efforts to develop renewables, reduce its dependence on hydrocarbon revenues or listen to the

long-standing calls for a more democratic governance, including energy rents (Ghanem, 2022). Algeria's lack of interest in further trade liberalisation has left the EU without its usual incentives, unable to offer an attractive model of energy interdependence based on Algerian gas access to the European market in exchange for economic and especially trade and energy reforms (Escribano, 2017).

Despite Algeria's pledges to Rome and Paris to increase natural gas exports, there are doubts regarding the country's real capacity to send larger volumes in the short term. Added to the growing domestic gas needs (rising at 5.5% per annum between 2011-21), the upstream sector has struggled to attract enough investment for years given an unattractive business environment, with Sonatrach –which is responsible for the lion's share of gas and oil production in the North African country– marred by corruption allegations (Ouiki, 2019). Recent interest shown by ENI and some US majors in exploiting the country's abundant shale gas resources will probably face both governance barriers and widespread social opposition.

The recent re-emergence of the Western Sahara conflict has further complicated Western Mediterranean energy geopolitics. Algeria broke diplomatic relations with Morocco and did not renew the Maghreb-Europe pipeline (GME) transit contract, leaving its neighbour without gas supplies and Spain relying only on the Medgaz pipeline, linking directly Oran to Almería, to which all remaining gas contracts were re-routed. As a result, Spain has reduced its imports from Algeria from over 40% to around 25% of its gas imports, which are now predominantly in the form of LNG, with the US becoming its first gas supplier for the first time in 2022.

Spanish-Algerian relations are strategic for Iberian energy security but have deteriorated rapidly over the past year (Escribano & Urbasos, 2022). The change in position of the Spanish government towards the Moroccan autonomy proposal (rather than a UN-supervised referendum) on the Western Sahara in March 2021 has poisoned relations with Algiers, which has restricted economic and diplomatic relations with Spain. While Algeria has honoured existing natural gas contracts, it has adopted a harder stance in recent renegotiations, showing a clear preference towards partnering with Italy and Italian companies in new energy deals (including new exploration and production projects).

In the case of Libya, the EU's strategy has been characterised by the division of its Mediterranean member States, whose interests in the country were often divergent. The rapprochement of positions of France and Italy (Tanchum, 2020a) has not prevented the failure to relaunch an electoral process. Without a legitimised authority, the process of institution-building and economic reconstruction is at risk of unfolding in a context of state weakness with few safeguards against corruption (Bourhous, 2021). During the decade of civil conflict, the energy transition remained frozen. Following Libya's ratification of the Paris Agreement in 2021 the renewed interest of European oil and gas companies in the country has been accompanied by announcements of new large solar PV projects (El Wardany, 2021). Previous experiences call for caution about the actual delivery of these MoUs into megawatts on the ground but show a novel interest in renewables in the country, at least from foreign companies involved in oil and gas upstream and aiming to decarbonise their operations (scope 1).

With Egypt, the EU has managed to reach a higher level of energy policy alignment with the EGD, integrating the development of new natural gas fields in the region and the deployment of renewable energy. The signing of an EU-Egypt Renewable Hydrogen Partnership at Sharm El-Sheikh (Commission, 2022b) highlighted Egypt's energy turnaround, abandoning in a matter of a few years its major projects for the construction of 8GW of installed coal-fired power and increasing its climate ambitions, showcased via its COP27 presidency.

The presence of European companies was key to guaranteeing a secure domestic natural gas and electricity supply in recent years and avoiding the 2014 blackouts that generated widespread social anger (Fahmy, 2020). With financial support from the IMF and Gulf countries, Egypt has substantially reduced fossil fuel subsidies from 6% of its GDP in 2013 to less than 0.3% in 2019 (Breisinger, 2019). Egypt wants to position itself as a tricontinental energy hub (African, Asian and European), becoming a major gas exporter in the Mediterranean and supplying electricity to its immediate neighbourhood, including Greece (Tanchum, 2020b). This relationship is not without its difficulties, such as Egypt's nuclear programme co-financed and developed by Rosatom (Sahira, 2022) or the democratic deficit of the ruling military *junta*. European policymakers have focused on economic and energy relations with Egypt, without articulating a more ambitious overall strategy than the current emphasis on stability and security (El-Shimy *et al.*, 2017). Relations with Egypt also expose the limits of energy policy to bring welfare and development without a package of major socio-economic reforms and institution building.

### 4.2. Renewable and carbon geopolitics in the Mediterranean

As the Egyptian case shows, geopolitical shifts are not exclusive to the oil and gas regime: electricity exchanges and interconnections, renewable deployment and trade (including hydrogen) or the impact of CBAM will impact Euro-Mediterranean decarbonised energy interdependence patterns. Electricity is entering the Euro-Mediterranean agenda, although only Turkey and Morocco are currently connected with the EU's electricity system. Other bilateral and bi-regional electricity interconnections have either been proposed in the past (Algeria to Spain and a Euro-Mediterranean electricity ring) or planned (Italy-Tunisia and the Euro-Asian and Euro-African electricity corridors with the Eastern Mediterranean).

Perhaps the best example of cooperation potential is Spanish-Moroccan electricity exchanges, which provides opportunities for decarbonised energy integration but may also entail the emergence of 'carbon geopolitics' due to the adoption of the CBAM and stricter sustainability criteria in the EU's Free Trade Agreements (FTAs). The electricity interconnections between Spain and Morocco made synchronisation of Moroccan, Algerian, Tunisian and European electricity systems possible. Between 2010-17 these interconnections provided almost 17% of Morocco's electricity demand, helping it meet the rapid growth in domestic consumption (6.5% per year between 2000 and 2012) and advance in the successful electrification of rural areas, whose rate of access to electricity rose from 37% in 1999 to 99.7% in 2020.

In 2019 the opening of two coal plants in Morocco temporarily reversed that electricity flow, with Moroccan electricity exports, allegedly generated from coal, being cheaper because they were not subject to the EU Emission Trading System (ETS) that sets a price on CO<sub>2</sub>. This was denounced by the Spanish government on the grounds of unfair competition, since Spain has been leading the phase-out of coal plants. However, when Algeria renounced renewing the GME contract for exporting gas to Spain and Portugal through Morocco in October 2021, electricity flows were reversed; since then, Spain has consistently been a net electricity exporter to Morocco (Urbasos, 2023). This significant European contribution to Morocco's energy security has recently been increased by supplying the country with natural gas imported through Spanish LNG facilities to the now reversed Maghreb-Europe Gas pipeline (or should it be renamed Europe-Maghreb?).

The expected implementation of the CBAM in 2023 in its pilot and information gathering phase (and in 2026 in its full form), initially including steel, fertilisers, cement, aluminium, electricity, hydrogen and a limited number of downstream products (certain chemicals and polymers) will impact Euro-Mediterranean energy exchanges (Commission, 2022c). In 2026 differences in carbon intensity may affect the current flows of electricity from Morocco, steel and cement from Turkey, and Moroccan, Egyptian and Algerian fertilisers.

The effects of the CBAM as an indirect environmental policy and norm diffusion instrument will be crucial to creating a decarbonised Euro-Mediterranean space, bringing risks of further fragmentation but also opportunities for implementing a more sustainable energy interdependency pattern. The same applies to the sustainability provisions to be included in future trade agreements, by which those MPCs that are more advanced in the energy transition can benefit from a combination of 'nearshoring' and 'greenshoring' that are likely to be welcomed by European officials.



# Revamping the Euro-Mediterranean Energy and Climate Space

The European Commission welcomed growing competition from US and Russian liquefied natural gas (LNG) in the Mediterranean with a large buildout of import terminals.

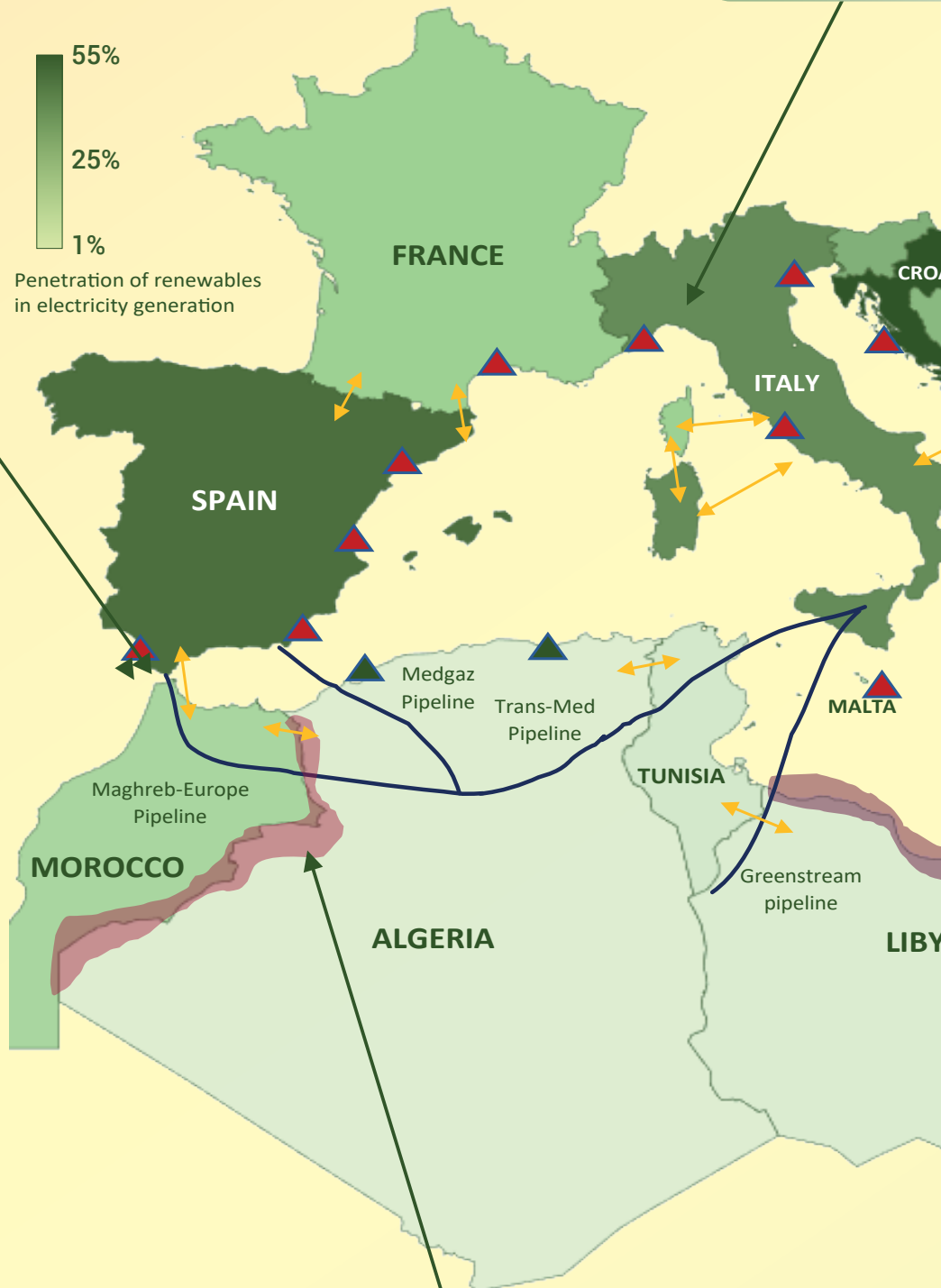
Italy has been securing additional Mediterranean energy through its “Mattei plan” with its main foreign

Spanish-Moroccan electricity exchanges provide opportunities for decarbonised energy integration but may also entail the emergence of “carbon geopolitics”.

Increases in hydrological droughts will affect negatively agricultural yields and hydropower while increasing space-cooling and desalination energy demand.

The Iberoamerican Network of Climate Change Offices could be analysed to inspire regional technical climate cooperation networks in the Mediterranean basin.

Strained Algerian-Moroccan relationship brought collateral effects on the Iberian Peninsula with the closure of the Maghreb-Europe gas pipeline, once a flagship project of Mediterranean cooperation.



... particularly active in  
... tional gas volumes from  
... n partners. The so-called  
... aims to turn Italy into the  
... n energy actor in North  
... Africa.

CBAM will impact Euro-  
Mediterranean energy space  
affecting current flows of electricity,  
steel, cement, hydrogen and  
fertilisers.



Despite subregional  
tensions, Egypt and Israel  
have become LNG  
exporters to the EU. Gas  
development in the area  
exposes new geopolitical  
challenges.

Egypt reached a higher  
level of energy policy  
alignment with the EGD,  
integrating the  
development of natural  
gas and the deployment of  
renewable energy. The  
signature of an EU-Egypt  
Renewable Hydrogen  
Partnership at COP27  
materialised Egypt's  
energy turnaround

Libya remains unable to  
capitalise on its fossil and  
renewable resources due to  
ongoing instability since 2011.



## 5 Towards a resilient Euro-Mediterranean energy space: diversification, decarbonisation and climate action

The current energy crisis has raised the strategic value of North African natural gas for European diversification efforts in the short to medium term and might also be a catalyst for renewing Euro-Mediterranean energy relations in the longer run. In the South Mediterranean, new investments by European oil and gas companies in the upstream sector are expected to increase natural gas exports through the already available infrastructure, both pipelines and LNG export terminals, partially alleviating the Russian gas loss. Secondly, this renewed interest in the gas sector might run parallel to additional investments in renewables from European oil majors and power utilities, with a growing global presence in renewables but historically absent in the development of the region's energy sector. Finally, climate change adaptation and mitigation efforts could incentivise mutual exchange and learning in areas such as climate governance, adaptation strategies, climate finance, just transition, education and capacity-building.

These three areas of Euro-Mediterranean engagement (gas diversification, decarbonisation and climate cooperation) can offer appealing interdependency patterns in the short term, while preparing the region for an inclusive decarbonised development model in the longer run.

The three above-mentioned areas for cooperation complement those described by Escribano & Lazaro (2020), which included: (1) striving for mutual development benefits; (2) supporting sustainable use of resources that generate high added value and jobs; (3) focusing on combating shared climate risks; (4) moving from 'grand' geopolitics to the micro-geopolitics of human security; and (5) accelerating and integrating the entire Mediterranean into the post COVID-19 green economic recovery.

The recently adopted 'Renewed partnership with the Southern Neighbourhood: A New Agenda for the Mediterranean' (European Commission, 2021b) strives to strengthen ties across the Mediterranean basin to deliver the green transition, guided by Agenda 2030, the Paris Agreement and the external dimension of the EGD, with the UfM as the focal point for regional cooperation. Support for partner countries within this New Agenda for the Mediterranean is subject to climate ambition and governance convergence with EU priorities. Under the 'Economic and Investment Plan for the Southern Neighbours' that supports the implementation of the new Agenda for the Mediterranean, the EU strives to enhance the region's attractiveness for investors, enable long-term recovery, sustainable development and inclusive growth.

The Plan also seeks to engage International Financial Institutions, commercial banks and the private sector in aligning financial flows and climate goals (*ibid.*), as well as with the Sharm el-Sheikh Implementation Plan at COP 27 in Egypt (UNFCCC, 2022b). The funding proposed by the EC for the new Agenda for the Mediterranean under the Economic and Investment Plan via the NDICI amounts to €7 billion for the 2021-27 period and is expected to mobilise €30 billion in public and private investment. Building on past cooperation initiatives, that will be briefly analysed below, the main green transition priorities of this new Agenda for the Mediterranean are summarised in Box 2.

### **Box 2. Key priorities for the new Agenda for the Mediterranean**

#### Environment and climate priorities

- Climate and environmental governance, public finances and fiscal initiatives and monitoring targets.
- Supporting carbon pricing initiatives.
- Enhancing administrative capacity and providing technical assistance to implement and enforce legislation at national and local levels.
- Education and awareness across the private sector and citizens.
- Supporting climate adaptation and resilience as key priorities for MPCs while investing in Nature-Based Solutions (NBS) and risk management.
- Deepen the on-going engagement with International Financial Institutions (IFIs) and the private sector to reform the financial system to align financial flows with a climate neutral development model.
- Engage policymakers that are part of the International Platform on Sustainable Finance (IPSF) to share best practices (eg, on green taxonomies, climate-related financial disclosures, green bonds, etc).
- Protect biodiversity, enhance water management, and deliver sustainable food systems.

#### Energy priorities

- Massive deployment of renewable energy and clean hydrogen production.
- A stronger interconnection of electricity systems.
- Energy efficiency efforts and measures, with a focus on buildings and appliances.
- Policies to address fugitive methane emissions from fossil fuel production, transport and use, in line with the framework set in the EU methane strategy.

Source: European Commission (2021b).

The following subsections present the main elements that could drive this transition towards a resilient Euro-Mediterranean energy and climate space.

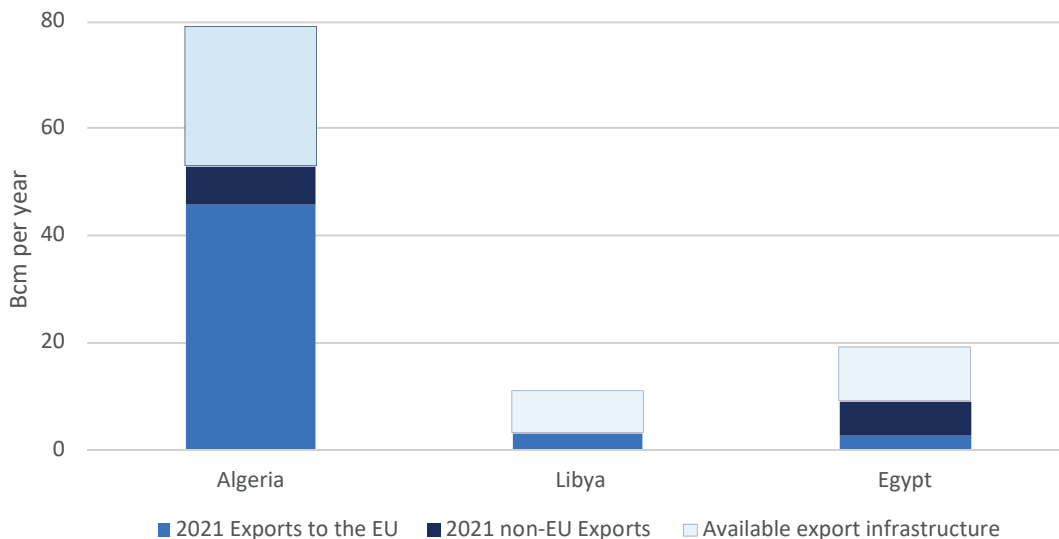
### 5.1. *The Mediterranean as a partner for gas diversification*

After the Russian invasion of Ukraine, the Southern Neighbourhood was identified in the REPowerEU plan as one of the key regions for the diversification of hydrocarbon supplies. Currently, Algeria, Libya, Egypt and Israel all have the potential to significantly contribute to the EU's energy security. This strategic contribution could be made without the need to build additional infrastructure in the region that locks-in expensive fossil fuels which are amenable to becoming stranded assets as the energy transition advances. In 2021 there were 44 billion cubic metres (bcm) of available spare export capacity in the existing four pipelines and liquefaction LNG terminals (see Figure 4). During 2021 Algeria and Egypt exported 14 bcm of LNG to non-EU countries that was progressively rerouted towards EU member States in 2022.

Italy has been particularly active in securing additional gas volumes from Mediterranean partners (Sgaravatti *et al.*, 2022). The so-called 'Mattei plan', named after the founder of the Italian energy group ENI, Enrico Mattei, aims to turn Italy into the main foreign energy actor in North Africa. The formula employed by the Italian government has proved to be successful, incorporating foreign and local private investment companies in the negotiations and including infrastructure, upstream, renewables and hydrogen projects in the signing of MoUs. The semi-public oil and gas company ENI has aligned itself with this new strategy, calling for a concerted European strategy to pivot towards Africa, and North Africa in particular, to ensure the EU's energy security of supply.

The private sector has also shown interest in North Africa in response to Russia's energy decoupling. The clearest case is the German Wintershall, whose forced exit from Russia has entailed the loss of its core business and around €7 billion (including Nord Stream pipelines), and which has identified North Africa as one of its new strategic geographies. The traditional presence of European companies in North Africa has been reinforced by sustained high hydrocarbon prices. The interest has been cross-cutting to mature (Algeria), transforming (Libya) or emerging producers such as the Eastern Mediterranean. The question is whether this renewed interest will have novel elements and will be aligned with the EGD and with private ESG policies, for example, as a catalyst for renewable investment, or whether it will be limited to rent capture and maximising profits.

**Figure 4. South Mediterranean gas exports and available gas spare infrastructure to the EU (LNG and pipeline) in 2021**



Fuente: BP Statistical Outlook 2021.

In this regard, as part of its Methane Strategy and a key part of the New Agenda for the Mediterranean, the EU has the opportunity to ensure that additional gas supplies from existing and new gas suppliers are coupled with targeted actions to tackle methane leaks and address venting and flaring. To this end, the national hydrocarbon agencies must be given the technical capacity to tackle these unwanted leaks whilst quantifying and sanctioning those that are not abated by upstream project operators. In 2021 Algeria (8 bcm), Libya (6 bcm) and Egypt (2 bcm) flared a combined volume of 16 bcm (World Bank, 2022), more than the EU's LNG imports from Russia in 2021. This is not only an issue of oil and gas exporting countries: Spain, Greece and France are ranked among the EU countries with the highest levels of flaring-embedded energy imports and could incentivise better resource management when possible. If the EU is able to create a mechanism that encourages the minimisation of venting and flaring in MPCs, it will be able to increase gas supplies from its Southern Neighbourhood with a net climate benefit and without the need for new expensive infrastructure.

Finally, recent European upstream hydrocarbon projects in MPCs have been accompanied by investments in renewable energy, mainly solar PV such as ENI-Libya NOC solar project, ENI-Sonatrach solar partnership and TotalEnergies-Libya NOC solar project. These renewable projects have the potential to replicate joint ventures (JVs) between EU oil majors and MPCs' National Oil Companies (NOCs), transferring know-how and helping to decarbonise the portfolios of state-owned companies. This dual private collaboration, fossil and renewable, might serve to diminish legal and administrative barriers to entry for European energy companies in the MPC's electricity sector, while advancing decarbonisation strategies in the EU's oil majors.



The arrival of European investment, be it fossil or low carbon, is likely to be limited in the absence of far-reaching reforms in the energy sectors of MPCs. These reforms have been postponed for decades owing to the difficulty in formulating a narrative from the national authorities that overcomes the nationalism of natural resources. However, the citizens of Algeria, Egypt and Libya do not seem willing to continue endorsing the pact of the rentier state, demanding genuine development, instead of the dominant clientelist and rent-seeking strategies (Escribano & Lázaro, 2020; Ghanem, 2022). It is of the utmost importance that the EU's energy diversification efforts in the Mediterranean are conceived as an economic, industrial and especially a social opportunity that extends to the decarbonisation and integration of new value chains.

### *5.2. The Mediterranean as a partner for decarbonisation*

The energy transition opens up the possibility of deploying a more cooperative Euro-Mediterranean energy narrative, based less on the hard power of oil and gas geopolitics and more on the soft power of appealing sustainable energy models, both in socio-economic and environmental terms (Escribano & Lázaro, 2020). In contrast to the oil and gas sector in which European oil majors and independent oil companies are well established in the region, large European utilities have remained largely absent from renewable energy deployment. This is particularly striking considering that Europe's 20 largest power utilities have become global companies with more than 40% of their total wind and solar capacity installed outside Europe (Eyl-Mazzega *et al.*, 2022). More robust European action to foster the development of renewable energy in MPCs should be directed at removing the key barriers to the private sector's engagement in the power sector.

Despite the uncertainties surrounding the Global Gateway, should it be effectively implemented, adequately funded and effectively communicated with local stakeholders and citizens, it could be an additional tool for increasing the EU's presence in Mediterranean infrastructure and connectivity development alongside China's Belt and Road Initiative (BRI). However, the Global Gateway still lacks clarity on the part of the European Commission on various aspects such as its precise objectives (Furness & Keijzer, 2022), the way in which its objectives are intended to be achieved (Koch *et al.*, 2023), KPIs (Key Performance Indicators), its priorities and how to engage with the private sector and with society to ensure their support (Olivé & Santillán, 2023). If the Global Gateway overcomes these problems and is given continuity, it could be an additional tool for modernising and reducing emissions from logistics and energy infrastructure with a long-term strategic vision for the region.

Another area of potential cooperation is in the development of energy communities, notably in solar energy. This cooperation should be channelled through the Neighbourhood, Development and International Cooperation Instrument (NDICI)-Global Europe, endowed with a total budget of €79.5 billion for the 2021-27 period, with at least €7 billion for the Southern Neighbourhood, and a spending target for climate change of 30% (Commission, 2021a). The development of decentralised solar energy could serve to reduce the political cost of eliminating fossil fuel subsidies and substitute the noisy and polluting diesel generators, with an estimated installed capacity in North Africa of 35GW (Lam *et al.*, 2019). Decentralised energy technologies would also serve to protect citizens from possible

currency depreciation and inflation, whilst helping the electricity system with peak-shaving at times of maximum demand due to air conditioning (AC) consumption in the summer.

The recent regulatory proposal by the European Commission to accelerate the deployment of Europe's net-zero technology ecosystem, known as the Net Zero Industry Act (NZIA), is part of the Green Deal Industry Plan, an instrument for the strategic management of complex interdependences (eg, with China) associated with key technologies and as the EU's response to the Inflation Reduction Act. It is based on two main concepts: reshoring (bringing production home) and friend-shoring (obtaining inputs from suppliers in allied countries). The NZIA sets a (non-binding) target of producing 40% of the EU's needs locally in 2030 from eight technologies: solar PV, wind, batteries, heat pumps, biogas and biomethane, carbon capture, electricity grids, and electrolyzers.

It is essential to help MPCs benefit from this friend-shoring process, given their geographic proximity and relative low energy and labour costs. This process will probably require a country-differentiated approach: Egypt and Morocco already have integrated value chains, as opposed to countries with a smaller presence of European investors, such as Algeria. MPCs included in a Euro-Mediterranean Free Trade Area could qualify for an exemption regarding such local content requirements, as the IRA does, furthering the integration of renewable and decarbonised industrial chains.

The Critical Raw Materials Act (CRMA) is another case for Mediterranean cooperation and value chain integration. Exploration and extraction of CRM remain significantly underfunded in North Africa. Areas of cooperation could include direct investment in the extractive and refining sector, as well as cooperation in the design of standards for environmental sustainability, wealth distribution and local participation. Given the historical difficulties in achieving a fair distribution of rent in other mature industries such as oil and gas, expectations should be tempered, as many of the institutional weaknesses will remain. The Commission's efforts to launch an EU-wide strategy for export credits, focused on aggregating member States' facilities, and shifting investments towards climate-neutral projects, could benefit renewable investors in mitigating political risk in the Southern Neighbourhood.

Hydrogen is also high on the Euro-Mediterranean agenda, having raised high geopolitical and geo-economic expectations (Escribano, 2021). Low-carbon hydrogen features prominently in the REPowerEU plan, which includes 10 million tonnes of hydrogen imported by 2030, with a prominent role for the EU Neighbourhood for technoeconomic reasons. The European Commission is consequently working on a Mediterranean Green Hydrogen Partnership between the EU and those MPCs seen as potential long-term exporters of the molecule.

The EU's hydrogen diplomacy, now a core pillar of the external dimension of the EGD, seeks to lead the regulatory development of the emerging global hydrogen market and create incentives for an accelerated deployment of renewables in its neighbourhood. However, the EU hydrogen narrative with the Mediterranean neighbourhood brings to mind past

strategic failures such as DESERTEC, which prioritised large-scale energy exports over local decarbonisation and development. European proposals to import green hydrogen from North Africa must be realistic and avoid raising false expectations, especially given the region's lagging renewable deployment, high carbon intensity and environmental constraints (water), and a rapidly growing energy demand.

The Union must avoid the popular perception among southern Mediterranean citizens that it only wants to extract their energy resources in connivance with their elites, aiming to perpetuate (or even expand) the oil and gas extractive model in the transition towards renewable resources, including renewable hydrogen (Escribano & Lázaro, 2020). In addition, projecting green hydrogen production (and exports) on the basis of renewable potential would be as misleading now as in the past with Desertec and the Mediterranean Solar Plan for not taking into account the barriers to renewable deployment in the region.

The development of a Euro-Mediterranean hydrogen market should prioritise cost-competitive decarbonisation that includes its use in the region's existing industries: fertilisers, petrochemicals and metallurgy, especially in view of the entry into force of the CBAM. For instance, for a country like Morocco with world-class phosphate resources, using renewables and green hydrogen to obtain green fertilisers not subjected to CBAM might be a more sensible economic strategy than exporting renewable electricity or green hydrogen. The country is already working on a certification system with that aim. Likewise, Egypt is already a significant exporter of ammonia, and benefits from existing port infrastructure for its export. Low-carbon or zero-carbon ammonia exported to Europe could be used to deliver a CBAM-friendly product to the European market for traditional uses (Rusekas, 2022).

This approach also applies to electricity interconnections and transnational infrastructure development. The energy transition in the Mediterranean is expected to induce new multidirectional electricity flows that would require an important upgrade in the existing infrastructure and be supported financially and politically by the EU as strategic projects. However, new interconnections should be devised on the basis of complementarity as opposed to unidirectional South-North proposals.

The Mediterranean basin also offers new spaces of cooperation on CO<sub>2</sub> economic circularity. In Northern Europe, third-party CO<sub>2</sub> offshore storage is gaining traction with the launch of the Northern Lights project in Norway, expected to inject and store up to 1.5 million tonnes of CO<sub>2</sub> per year in its Phase 1 from 2024. As identified in the EU Net-Zero Industry Act, the emergence of a Carbon Capture and Storage (CCS) value chain in the EU is currently being hampered by a lack of CO<sub>2</sub> storage sites. Countries with large geological storage potential and existing upstream industries (Algeria, Libya and Egypt) could mirror the Norwegian CCS strategy, based on exporting natural gas to EU countries and re-importing its carbon captured content in exchange for a remuneration through the EU ETS system.

This circular carbon concept is backed by the EU's long-term climate strategy, which defined CCS as one of the seven key technologies to reach climate neutrality in 2050, with strategic implications for the decarbonisation of the hard-to-abate process emissions of the cement

and aluminium sectors. However, while the latest IPCC report includes CCS as a key part of keeping global warming to within 1.5°C and 2°C, it also identifies existing barriers to its widespread adoption due to factors such as environmental impacts, risks of leakage, the lack of a clear legal framework and public acceptance (Kikstra *et al.*, 2022).

### *5.3. The Mediterranean as a partner for climate action*

Historically, the UNEP and the EU have been the main drivers of climate cooperation in the Mediterranean region. Despite its unique potential as the only intergovernmental organisation in the region to include all EU member States and the remaining Mediterranean countries (except for self-suspended Syria and observer Libya), the UfM has faced scrutiny for its limited outcomes (Katsaris, 2015). Nevertheless, it should be noted that the UfM introduced the Depollution of the Mediterranean initiative, which addressed climate change adaptation, a clear priority for MPCs, and an area that has received limited attention from the EU in the past. The UfM also plays a crucial role in providing support to the Mediterranean Experts on Climate and Environmental Change (MedECC). MedECC contributions are highlighted by the inclusion of a cross-chapter exclusively focusing on the Mediterranean in the Intergovernmental Panel on Climate Change (IPCC) Assessment Report 6 (AR6) (Ali *et al.*, 2022).

Additionally, several past and on-going EU-funded climate cooperation projects are also worth mentioning as they were envisaged to assist MPCs in transitioning to a low carbon development model: CES-MED, SUDEP-South and ClimaSouth that were succeeded by Clima-Med which provides support for C4C, and meetMED. CES-MED's goal was to support the development of renewable and energy efficiency policies by local authorities in partner countries (CEPS, 2023). SUDEP-South was a demand-driven technical assistance project that supported selected municipalities in their development of sustainability and low-carbon strategies (SUDEP-South, 2023). ClimaSouth and Clima-Med sought to enhance administrative, regulatory and technical capacity building by helping MPCs develop Nationally Determined Contributions (NDCs), mitigation and adaptation plans as well as enhancing Monitoring, Reporting and Verification (MRV) capabilities.

ClimaSouth and Clima-Med have also promoted knowledge sharing, have supported climate policy development, and climate policy implementation and integration (ie, mainstreaming, van Asselt, Rayner and Persson, 2015). Mitigation Enabling Energy Transition in the Mediterranean region (MeetMED) aims to promote energy efficiency measures in building and appliances with a focus on capacity-building. Key to decarbonising MPCs, these climate cooperation initiatives facilitated access to climate finance in Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Palestine and Tunisia<sup>4</sup> (Clima-Med, nd).

ClimaSouth, ClimaMed and meetMED, however, are cooperation strategies that are time-bound and have a limited budget, which could limit continued engagement with MPCs at a time where climate impacts are increasingly visible. Funded by the EU, ClimaSouth started in 2013, its duration was 48 months and it had a budget of €5million. Similarly, Clima-Med

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<sup>4</sup> Note that in addition to the eight countries mentioned, ClimaSouth also supported decarbonisation in Libya.

started in 2018 and has a total duration of eight years. Phase I ended in 2022 and Phase II is currently under implementation until 2025 with a total budget of €9.4 million. In the case of MeetMed, launched in 2018, its phase II is expected to last until 2024 with a budget of €5.4 million.

Additionally, the quantitative analysis of ClimaSouth undertaken by Shyrokykh, Dellmuth & Funk (2023) portrays an EU acting as a network manager in MPCs that uses policy networks to advance its own geopolitical and climate strategies rather than tailoring them to their needs. More specifically, cooperation with MPCs was fostered under ClimaSouth to manage trade interdependencies but less so to manage energy dependencies as this would have hindered the partners' interests. Cooperation is also greater in low institutional settings. Finally, the focus of ClimaSouth has not overwhelmingly revolved around the most climate-vulnerable countries.

The C4C initiative builds on Clima-Med and also seeks to support the MPCs' low carbon transition. However, it focuses on the local level (cities) and on facilitating the implementation of Sustainable Energy and Climate Action Plans (SECAPs) in MPCs (EU Neighbours South, 2021). This initiative covers Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria and Tunisia. With around 70% of the population in the Mediterranean region living in urban areas (66% in the case of the southern and eastern shores), the existing decentralised Euro-Mediterranean engagement and ample scope for climate action leadership at the city level (Martínez & Pérez-Porro, 2022) provide an opportunity for enhanced cooperation.

Despite past Euro-Mediterranean climate cooperation initiatives, some authors have argued that there is a lack of a comprehensive climate cooperation between the two shores of the Mediterranean (Katsaris, 2015). Some of the reasons include:

- 1) Climate cooperation has not historically ranked high in Euro-Mediterranean cooperation *vis-à-vis* free trade and market liberalisation initiatives.
- 2) Asymmetric climate concerns: northern Mediterranean countries have been historically more concerned about mitigation while southern Mediterranean countries have been more concerned about adaptation.
- 3) Institutional fragmentation, with climate change being addressed in Environment Ministries rather than across government institutions. There has also been a lack of regional climate frameworks.
- 4) Membership fragmentation. For instance, Members of the United Nations Environment Programme's (UNEP) Mediterranean Action Plan and the UfM differ. However, in ClimaSouth and Clima-Med, MPCs coincide (with the exception of Libya), which arguably made regional coordination easier.
- 5) Overlap between UN initiatives and those of the EU.
- 6) Insufficient international climate finance and difficulties in accessing existing multilateral climate funds.
- 7) Limited MRV capacity and missing links between MRVs and NDCs.

Given the above, there are opportunities for cooperation between Mediterranean countries on climate change that could fit well within the New Agenda for the Mediterranean (European Commission, 2021b). The extent to which this cooperation will materialise, given the limited speed of legislative and governance convergence and knowing that institutional innovation tends to be slow in MPCs, will be contingent on the complex political and socioeconomic context of MPCs. Collaboration possibilities, especially in the short term, should hence be assessed with caution regarding these issues (eg, ambitious mitigation) that can be perceived as being a secondary concern for MPCs.

As regards mitigation, the EU's 'thickening' and Climate Policy Integration (CPI) enhancement during the past two decades (Obertür & Homeyer, 2022) could potentially deliver climate policy diffusion (the so-called Brussels Effect) (Bradford, 2020) in certain areas across the Southern and Eastern Mediterranean partners. Further mutual exchange and learning are argued to be feasible in areas such as climate governance, adaptation, finance, just transition, and Loss and Damage (L&D) management and compensation. Clima-Med+/MeetMed+ programmes within the New Agenda for the Mediterranean, with no end-date and enhanced funding, could help provide continuity to past Euro-Mediterranean climate cooperation projects.

In addition to providing support for MedECC as a scientific network, institutional climate cooperation could materialise by replicating technical weather, climate and water networks that have worked in the Iberoamerican space since the early 21<sup>st</sup> century. The Iberoamerican Network of Climate Change Offices (Red Iberoamericana de Oficinas de Cambio Climático, RIOCC), the Conference of Iberoamerican Directors for Meteorological and Hydrological Services (Directores de los Servicios Meteorológicos e Hidrológicos Iberoamericanos, CIMHET) and the Conference of Iberoamerican Water Directors (Conferencia de Directores Iberoamericanos del Agua, CODIA) could be analysed to inspire regional technical climate cooperation networks in the Mediterranean basin.

On climate governance and legislation, exchanges on the development of climate laws –inclusive of net-zero goals that are legally binding– could additionally help both EU countries, that have not included a net-zero goal in their climate laws, and MPCs align their climate goals with those of the Paris Agreement. Innovative institutions and instruments that are being deployed in the EU could be adapted in Mediterranean partners to suit their specificities. Such institutions include climate-change advisory bodies that recommend climate goals and evaluate progress towards these goals, perhaps building on the MedECC experience while ensuring funding for analyses and experts. In addition to helping develop climate policies, climate awareness programmes could also be funded by future Euro-Mediterranean cooperation as peer exchanges can act as a coordination mechanism for increasing the likelihood of accepting climate policies (Lipari et al., 2023). Supporting programmes designed to increase citizens' perception of self-efficacy are also known to increase the likelihood of accepting climate policies (Ibid.).

Climate finance is a key area where Euro-Mediterranean cooperation could be strengthened, the reason being that the most ambitious emission reduction goals included in MPCs' NDCs are conditional on receiving international climate finance. For example, as mentioned above, Egypt demands US\$246 billion to achieve its conditional GHG climate goals (US\$196 for mitigation and US\$50 billion for adaptation). Morocco estimates that it will need US\$21.5 billion to implement its conditional climate goals. Tunisia needs international support for achieving its conditional objective amounting to US\$11.1 billion. These figures alone are over twice the annual goal set for international climate finance. Even if the NDCs cover a multiyear period, the need for increasing developed-countries financial transfers is clear, as is the need to design innovative financing instruments and harness new sources of finance, in addition to fostering a broader alignment of financial flows and climate goals. The lessons learnt from the EU's taxonomy as a classification system for sustainable activities could also be valuable for Mediterranean partners as they seek to steer finance towards transitional and low-carbon projects, as acknowledged by the New Agenda for the Mediterranean.

In contrast to international climate finance requested in MPCs' NDCs, according to Costa & Fosse (2022), climate finance for the Southern and Eastern Mediterranean region amounted to US\$6.95 billion in 2017 (and US\$9.12 billion, 11% of global international climate finance, in 2019), with the largest donors being Multilateral Development Banks (58%) and bilateral donations (41%), mainly from France, Germany and the EU. Multilateral Climate Funds such as the Global Environmental Facility (GEF) contributed only 1% of international climate finance for the region. Partly disregarding the significant adaptation needs, the bulk of international climate finance for the MENA region has been allocated to mitigation projects, with the main beneficiary of multilateral climate funds in the region being Morocco (57%), followed by Egypt (27%). Scaling up both public and especially private finance, de-risking, increasing technical capacity to apply for funds, clarifying what counts as a green investment, and fostering standards and predictable regulatory frameworks are some of the key elements for increasing climate finance in the region (Ibid.; Tagliapietra, 2018).

As climate finance is sorely needed for the energy transition in Mediterranean countries, Just Energy Transition Partnerships (JETPs) could be sought by MPCs while ensuring community engagement and continued support for vulnerable sectors and communities, perhaps ahead of COP 28. The main barriers to a greater presence of private foreign investment in the region are regulatory hurdles, subsidies and financial risks, such as currency convertibility, inflation and constraints in the commercial financial system (Ibid). Due to the high capex of renewables, an enabling investment environment with low financing costs is fundamental to creating markets for renewable energy technologies. This is one of the main areas of potential cooperation, given the EU's regulatory leadership in climate finance and governance. In terms of financing, concrete solutions to be promoted in specific EU Mediterranean partners might include measures to enhance local bank capacities, to establish a more stable central-bank monetary policy, to encourage transactions and power-purchase agreements with a more stable currency, and to develop favourable tax regimes for renewables. Renewable deployment also offers channels for cooperation in administrative capacity-building in areas such as project evaluation, where there is ample scope for improvement in both the EU and North Africa.

Two additional institutions could be valuable in both transitioning away from high carbon models and in embracing a net-zero development model. First, French Ecological Transition Contracts (or their Spanish version, Just Transition Agreements and their managing institution, the Just Transition Institute) could help phase-out high-carbon activities while offering regions and workers viable low-carbon alternatives. Secondly, and based on the Just Transition Agreements, 'socioenvironmental contracts' could be designed to ensure that the phase-in of large-scale renewable projects are socially acceptable (due to the jobs and growth benefits they could provide for the regions where they are developed) and environmentally sound. Such socioenvironmental contracts have not yet been developed, but they could help both sides of the Mediterranean, and perhaps other geographies, engage with communities in their uptake of a low-carbon development model while fostering either active or passive acceptance (Roberts, 2011) of increasingly ambitious climate goals and their accompanying policies.



## 6 Conclusions and policy recommendations

This Policy Paper seeks to analyse ways to strengthen Euro-Mediterranean relations in a rapidly changing landscape marred by the fossil energy crisis resulting from the Russian invasion of Ukraine, the complexities of the energy transition in the Mediterranean and the severe impact of climate change in the region. The paper begins by presenting the main reasons that led to the exhaustion of the Euro-Mediterranean energy and climate space from the Barcelona Declaration of 1995 until the Russian invasion of Ukraine. This section further explains why the EU's Mediterranean strategy based on mega-projects to export energy from MPCs to the EU, backed by weak regional institutions, failed to create an effective space of integration and policy convergence.

The Policy Paper further presents the evolution of climate and energy policies in MPCs, analysing past and on-going collaboration to enhance climate ambition, implementation of climate policies and climate finance in alignment with the European Green Deal and the Paris Agreement. Hence, the analysis focuses on the most recent dynamics of the Euro-Mediterranean space, pointing out the main fossil geopolitical issues as well as the dawn of new decarbonised dynamics: electricity exchanges and the geo-economic implications of CBAM. The document goes on to present three main axes of Euro-Mediterranean cooperation: fossil diversification in the context of Russia's energy decoupling, the development of an integrated decarbonised economy and climate cooperation.

The paper presents nine policy recommendations to reformulate the Euro-Mediterranean project striving to promote appealing interdependency patterns between the EU and MPCs in the short term, while preparing the region for an inclusive decarbonised future.

Regarding energy diversification:

- 1) The Mediterranean is a core geography in the EU's hydrocarbon diversification strategy to achieve effective long-term decoupling from Russia. Diversification efforts must include sustainability criteria that avoid generating stranded assets, reduce emissions from upstream processes and integrate renewables in the investment of EU oil and gas companies.
- 2) It is of the utmost importance that the EU's energy diversification efforts in the Mediterranean are conceived as an economic, industrial and social opportunity, that extends to decarbonisation and integration of new value chains.
- 3) The necessary European investments, be they in the fossil or low-carbon sectors, are likely to be limited in the absence of far-reaching energy sector reforms that provide an attractive ecosystem for investment, training and technology transfers in many MPCs. Political elites in MPCs should be aware that to capture the benefits of the energy transition, significant institutional and infrastructure upgrading is needed.

Concerning decarbonisation:

- 4) The Mediterranean should be a strategic region in the implementation of the Net Zero Industry Act and the Critical Raw Materials Act. The EU must present itself to MPCs as a reliable partner at a time of growing protectionism around near-shoring and friend-shoring. The Mediterranean must be part of Europe's strategic autonomy, offering opportunities for cooperation along these lines in existing and new trade agreements.
- 5) It is essential to help MPCs benefit from new friend-shoring processes, given their geographic proximity and relative low energy and labour costs. MPCs included in a Euro-Mediterranean FTA could qualify for an exemption regarding potential local content requirements, furthering the integration of renewable and decarbonised industrial chains.
- 6) A Mediterranean Green Hydrogen Partnership offers a promising opportunity for the region, but its development should prioritise cost-competitive decarbonisation that includes its use in the MPC's existing industries: fertilisers, petrochemicals and metallurgy, especially in view of the entry into force of the CBAM. It is urgent to reformulate the EU's hydrogen diplomacy in the region, prioritising local wealth creation over mega-projects designed to export energy and replicate fossil rentier formulas.

For climate action:

- 7) The challenges posed by climate change in MPCs would benefit from further Euro-Mediterranean cooperation and (and gradual) convergence. First, building on the New Agenda for the Mediterranean (Commission, 2021b) and on scientific cooperation initiatives such as MedECC and other climate cooperation initiatives such as ClimaSouth, Clima-Med, Cities for Climate (C4C) and MeetMED, new institutions such as a Euro-Mediterranean Network of Climate Change Offices (ENCCO) for technical cooperation similar to the RIOCC, CODIA and CIMHET could be designed. Secondly, gradual climate legislative and regulatory convergence could be fostered by, among others, mutual exchanges and learning.
- 8) Sacaling up climate finance and balancing could help balancing climate finance for adaptation with that allocated to mitigation, while developing inclusive and fair Just Energy Transition Partnerships (JETPs) to manage the impacts of the fossil fuel phase-out. Funding climate awareness and self-efficacy empowerment projects could additionally increase the likelihood of climate policy acceptance.
- 9) As a joint project, and one that could help address one of the EU's domestic blind spots,<sup>5</sup> Euro-Mediterranean climate collaboration could establish an on-going regional dialogue for the management and compensation of Losses and Damages (L&D) caused by climate change both within the EU and in MPCs.

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<sup>5</sup> Arguably due to the potential distributive and liability impacts of L&D funding, the heretofore scant experience in developed countries with the limits to adaptation and the difficulty in agreeing to set up a Loss and Damage Fund, which finally occurred at COP27 (Lázaro Touza, 2023).

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## List of acronyms

BAU	Business as Usual
Bcm	Billion Cubic Metres
BRI	Belt and Road Initiative
CBAM	Carbon Border Adjustment Mechanism
CCS	Carbon Capture and Storage
CODIA	<i>Conferencia de Directores Iberoamericanos del Agua</i>
COP	Conference of the Parties
CPI	Climate Policy Integration
CRM	Critical Raw Materials
CRMA	Critical Raw Materials Act
CIMHET	<i>Directores de los Servicios Meteorológicos e Hidrológicos Iberoamericanos</i>
C4C	Cities for Climate
EGD	European Green Deal
ENCCO	Euro-Mediterranean Network of Climate Change Offices
ESG	Environmental, Sustainability and Governance
EU ETS	European Union Emissions Trading System
FDI	Foreign Direct Investment
GEF	Global Environment Facility
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GME	Maghreb-Europe Pipeline
IFI	International Financial Institutions
INDC	Intended Nationally Determined Contribution
IPCC	Intergovernmental Panel on Climate Change
IPSF	International Platform on Sustainable Finance
IRA	Inflation Reduction Act
JETP	Just Energy Transition Partnership
L&D	Loss and Damage
LNG	Liquefied Natural Gas
LULUF	Land Use, Land Use Change and Forestry
MedECC	Mediterranean Experts on Climate and Environmental Change
MED-TSO	Mediterranean Transmission System Operator
MENA	Middle East and North Africa
MRV	Measurement, Reporting and Verification
Mt CO <sub>2</sub> EQ	Million tons of CO <sub>2</sub> equivalent
MoU	Memorandum of Understanding
MPC	Mediterranean Partner Countries
NBS	Nature-Based Solutions
NDC	Nationally Determined Contribution
NDICI	Neighbourhood, Development and International Cooperation Instrument
NMC	Northern Mediterranean Countries
NOC	National Oil Company
NZIA	Net Zero Industry Act
OECD	Organisation for Economic Co-operation and Development
RIOCC	<i>Red Iberoamericana de Oficinas de Cambio Climático</i>
UfM	Union for the Mediterranean
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change







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