

1 TERAWATT RENEWABLE ENERGY CAPACITY INSTALLED IN THE MEDITERRANEAN REGION BY 2030

TeraMed is an ambitious initiative to deliver 1 TW of renewable energy installed capacity in the Mediterranean by 2030

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Two fundamental breakthroughs are needed to put global climate action on track: the implementation of COP28's iconic target of tripling total renewables deployment by 2030, and real demonstrations of win-win cooperation between the Global North and Global South.

The Mediterranean region is a global crossroads, linking the world's largest market economy—the EU—to the world's fastest growing population—Africa. The Mediterranean region is also one of the world's most climate-vulnerable ecological zones.

The TeraMed will enable energy security, affordability, clean industrial development, jobs, and investment in both shores of the Mediterranean region.

Launched at 2024 Cairo Sustainable Energy Week, the TeraMed initiative is promoted by a growing network of like-minded organizations from across the Mediterranean region, with the support of <u>IRENA</u>, the <u>Union for the</u> <u>Mediterranean (UfM)</u>, the <u>Global Renewable Alliance</u>.

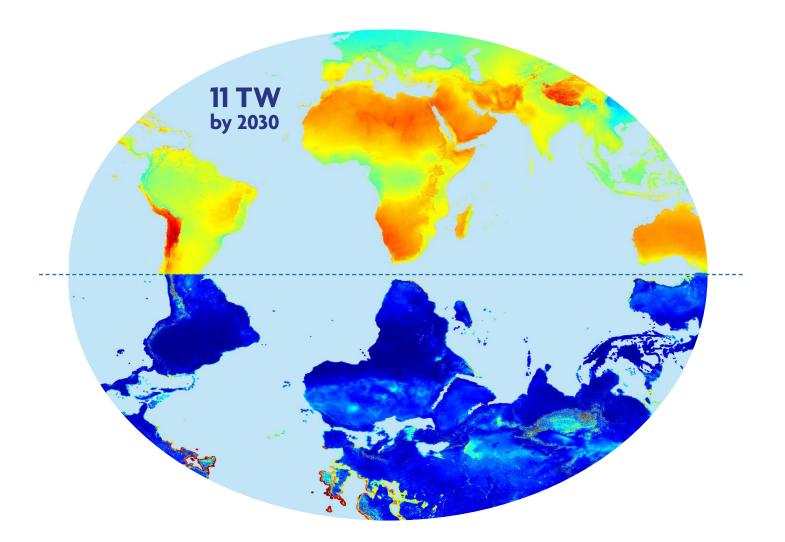


FROM GLOBAL AMBITION TO REGIONAL IMPLEMENTATION

At COP28 in Dubai, <u>over 130 countries</u> agreed to expand renewable energy capacity to 11 Terawatt globally by 2030.

Despite the enormous potential for renewable energy development, Mediterranean countries lack a common vision, clear commitments and coordinated efforts to advance the global decarbonization goals.

The Mediterranean region has historically played a strategic role in global energy dynamics, mostly through fossil fuels exploitation. Today, the decarbonisation imperative requires a rapid and just fossil-to-clean shift. Shifting the focus to renewable energy offers a fresh and unique opportunity to work together to tackle the diverse but common set of challenges faced by countries across the region. An inclusive energy transition pathway for the region is critical to underpin its future's stability and achieve sustainable development goals, reduce the reliance on fossil fuels, mitigate geopolitical tensions and support the global decarbonisation pathway.



Global target of 11 TW of installed capacity by 2030, supported by Global Renewable Alliance, IRENA Regional target of 1 TW of installed capacity by 2030, supported by regional actors and governments

1 TERAWATT TARGET OF RENEWABLE ENERGY ALREADY BY 2030

International cooperation and diplomacy efforts in the Mediterranean region are key to accelerate energy transition efforts and promote the adoption of a common target of one terawatt of renewable energy capacity installed by 2030.

As an integral part of the TeraMED Initiative, the Mediterranean Dialogue on Sustainable Energy and Climate (MEDSEC) launched an open letter with a call to action for Mediterranean Governments including strategic asks for achieving a 1 TW renewable energy by 2030 target.

- **Establish ambitious national renewable energy targets**, to be reflected in their NDCs, thus setting the basis to reach one terawatt of installed renewable capacity in the region by 2030;
- Enhance climate cooperation and diplomacy with other countries, regional and international partners, utilities, regulators and the private sector, tackling common barriers and identifying roadmaps to achieve the one-terawatt regional target;
- **Design and adopt policies and regulations** to streamline and ramp up the deployment of renewable energy at all scales, in particular solar and wind, diverse energy storage solutions, other enabling technologies and innovative solutions, including water-energy-food-ecosystem nexus and circularity;
- **Expand and modernise grid infrastructure**, including stand-alone grids, strategic interconnection capacity and cross-border infrastructure;
- Unlock market conditions and financing mechanisms for renewables, energy efficiency, energy storage and grid infrastructure with focused investments packages and coordinated efforts – including in cooperation with national, regional, and multilateral Development Finance Institutions – to increase access to finance and attract private investment including through public-private partnerships, guarantee mechanisms, and redirecting financial resources from fossil fuels subsidies;
- **Engage local stakeholders** in consultation mechanisms regularly, empowering them to take an active part while raising awareness among the civil society and private sector on the policies in place and the opportunities resulting from the energy transition.



Mediterranean region

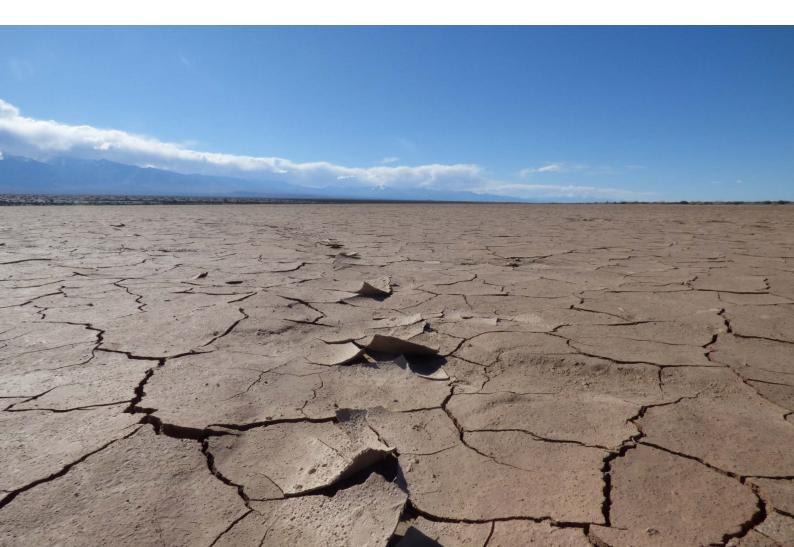
Defined by a common history, the wider Mediterranean region includes countries bordering the basin in Southern Europe, North Africa and the Levant as well as those countries in the proximity that are connected through deep cultural, economic, social and geopolitical ties i.e. the Middle Eastern and Gulf countries. Today, the region still maintains significant strategic importance for global security, geopolitics, trade and economic development. However, it is characterized by great diversity at political and governance level, uneven economic development and high degree of inequalities and a complex security environment, including persistent conflicts, geopolitical rivalries and unregulated migration flows.



Great challenges...

Along with structural economic weaknesses, the geopolitical and socioeconomic implications of the COVID-19 pandemic and the recent energy crisis alongside trade disruption, increasing costs of inflation, food insecurity, and growing public debts, have given rise to increasing financial tensions that are threatening stability and creating new crises. Geopolitical instability further complicated the security landscape of the region, leading to additional uncertainty in the global markets and for the overall future prosperity of the region.

This complex situation is compounded by a worsening climate change impacts, which act as a threat multiplier and exacerbate pre-existing conditions, affecting the social, economic, political, and human security dimensions. Worsening climate impacts can become a major security risk for both regional and global stability, directly affecting key economic sectors such as agriculture, fisheries, forestry, and tourism. This can lead to unemployment, mass migration, radicalization, new conflicts, and the backsliding of democratic transitions.



...And great opportunities

The Mediterranean region still holds great strategic value today. As a space of both unity and division, it has the potential to become a laboratory for an inclusive and just transition, where European, North African, and Middle Eastern countries can work together to address the diverse but common set of challenges they face, relaunch trust in international cooperation and close the increasingly concerning divide between Global North and Global South countries.

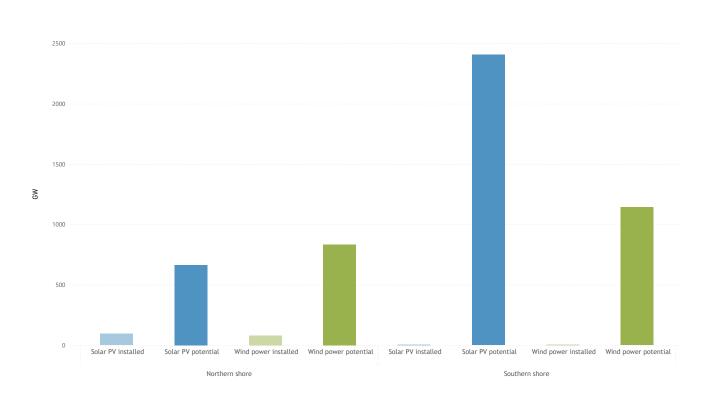
The untapped renewable energy potential

In 2024, ECCO, Imal Initiative and Regional Center for Renewable Energy and Energy Efficiency (RCREEE) conducted a study on the potential of renewable energy development in the region. The study focused on a geographical area including 4 countries in the Northern shore of the Mediterranean Sea (Spain, France, Italy and Greece), 5 countries in the Southern shore of the Mediterranean Sea (Morocco, Algeria, Libya, Tunisia and Egypt) and Turkey. According to the study, the annual average irradiation in the region is 1700 kWh/m2, which ranks it among the most promising for solar power development. North African countries have higher average irradiation (1830 kWh/m2) than the Southern European ones (1480 kWh/m2). The study calculated the potential, which amount to 4.5 TW (solar and wind), of which 3.5 TW (1 TW wind, 2.5 TW PV) in the Southern shore, and 1.5 TW (0.8 TW wind, 0.7 TW PV) in the Northern shore.



AN UNEVEN SITUATION ALONG THE NORTH – SOUTH DIVIDE

Despite positive trends, renewable energy generation capacity in the Southern Shore of the Mediterranean region remains underutilized, with lower installed capacity than Southern European countries, where European Green Deal as well as national ambitions are driving renewable expansion.





Towards an integrated renewable energy system in the Mediterranean

Renewables are today competitive in absence of supporting mechanisms on both shores of the Mediterranean Basin.

A 1 TW regional target would provide the political framing for current market and energy trends. Renewable energy rollout is at speed on the global scale; however, regional governments and stakeholders are yet to develop a clear roadmap for the Mediterranean region's energy transition. Energy market integration has long been recognized for offering numerous benefits to energy systems and economies of participating countries: enhanced energy security and power system reliability, supply mix diversification, lower power system costs, and, therefore, lower consumer prices. With increasingly ambitious climate mitigation objectives at the global level, the the climate as well as socio-economic benefits become the key rationale for market integration at the regional level, as it accelerates the scale up of renewable energy through regional collaboration.

Furthermore, an interconnected Mediterranean region opens new opportunities for green industrialisation, leveraging processes of nearshoring, greenshoring and friendshoring to foster an environment conducive to the electrification of final consumption, additionally advancing socio-economic gains of the entire Mediterranean region.

A more secure and prosperous region for all

The focus on renewable energies can increase economic resilience, offering a route to stable jobs in a region characterised by high level of unemployment, especially among youth, responding to the increasing energy needs for cooling and desalination as the climate worsens. In addition, it can shield the region from its dependency on volatile fossil fuel markets, especially in view of the decreasing demand of fossil fuel led by global energy transition efforts, and instead provide a stable energy supply to power competitive industry, including clean supply chains in the face of growing global competition.

Far beyond their mitigation potential, the deployment of renewable energy can enormously benefit local populations and economies, creating added value for societies.





Hajar Khamlichi North Africa Director at Pooled Fund for International Energy

**The TeraMED Campaign is a bold initiative uniting North Africa and Southern Europe with the goal of installing 1 TW of renewable energy capacity by 2030. Endorsed by IRENA and the Global Renewables Alliance, this campaign aims to drive socioeconomic growth, green industrialization, and global leadership in the Mediterranean region. As we approach COP29 and the final NDCs update cycle, we have a unique opportunity to leverage renewable energy for job creation and sustainable development. Together, we can turn climate ambition into reality, making the Mediterranean region a hub for green innovation and contributing 10% to the global target of 11 terawatts.

A common target for the Mediterranean region of **1 TW of renewable energy installed** capacity by 2030 has the potential to stimulate **investments up to ~700 billion \$**, in light to the recent decline in solar and wind technology costs, especially in North Africa, and opportunities to around **3 million new jobs** in the sole supply chain for solar and wind industries.

An interconnected, renewable-based Mediterranean region can also unlock opportunities for industry electrification, substitution of fossil fuels in electricity production, electrification of household and service energy consumption, and transport electrification, with even deeper impacts on jobs creation.



Benefits of the Teramed

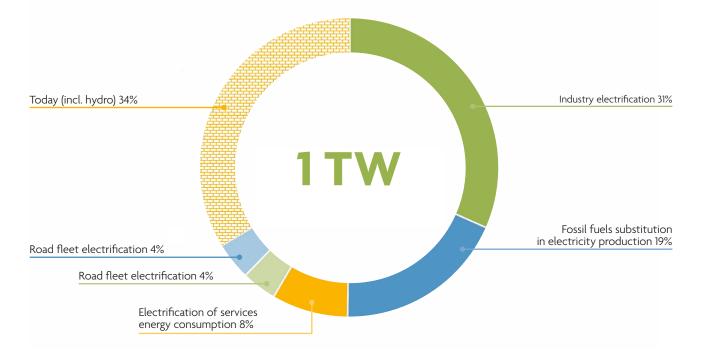
600 million tons of CO2 potentially avoided (around the double of France emissions in 2023)

Solar and wind technology lower costs open to investments of **~700 billion \$** to fill the gap to the TW

Opportunities to around **3 million new jobs**, considering only the supply chains of the solar and wind industries.

An interconnected Mediterranean region also produces new opportunities for **industrialization**:

- Industry electrification
- Fossil fuels substitution in electricity production
- Electrification of households and services energy consumption
- Road fleet electrification



- Industry electrification (31%): 50% of low and high-temperature heat in the industry potentially electrified using heat pumps and electric boilers
- Fossil fuels substitution in electricity production (19%): 20 bcm of gas, 30 million tonnes of oil, 200 million tons of coal can be saved, avoiding 600 million tons of CO2 emissions
- Electrification of households and services consumption (12%): phase-out of coal, oil and traditional biomass in buildings
- Road fleet electrification (4%): electricity for 28 million EVs



Francesco La Camera Director-General of IRENA

^c The Mediterranean region has significant untapped potential for the deployment of renewables and this initiative stands for the bold commitment of the region to translate pledges made at COP28 into tangible progress on the ground. The next round of national climate plans in 2025, the NDCs 3.0, must mark a turning point to bring the world back on track to meet 1.5C pathway.⁹⁹





Grammenos Mastrojeni Senior Deputy Secretary General of the Union for the Mediterranean

••While building renewable energy in the Mediterranean region we are building peace ^{>>}

However, a comprehensive regional vision is needed to increase economic resilience and boost competitiveness in a low carbon world. A failed, incomplete or uncoordinated energy transition in the Mediterranean region bears, firstly and foremost, social and economic costs for Mediterranean countries and the resilience of their societies.

In an ever-increasingly competitive global economy that sees rising protectionist policies and the segmentation of traditional fossil fuels markets, the future of decarbonisation for countries in the Mediterranean region is anchored in both their geographical proximity and the history of Mediterranean relations. Moreover, the structural and progressive decline in European gas demand forecasts jeopardises the stability of traditional North African producer countries, affecting their revenues. On the other side, delaying the needed investments and policy reforms to implement more far-sighted industrialisation policies in the framework of global decarbonisation might lead to the loss of the comparative advantage that North African countries might have by leveraging regional decarbonisation. The upcoming NDCs update cycle towards COP30 provides a window of opportunity for countries across the Mediterranean region to set higher ambitions and kickstart the needed policy changes.



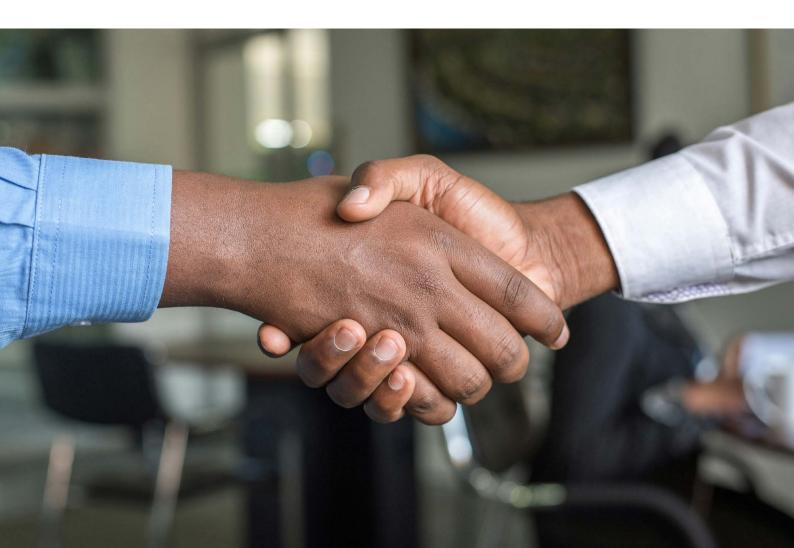
Jauad El-Kharraz Cairo Sustainable Energy Week Co-Chair

⁶⁶Boosting renewable energy in the Mediterranean is crucial for ensuring energy security and sustainability in the region. By setting such an ambitious target of 1 TW renewables for 2030, we can harness the abundant solar and wind resources available, accelerate energy transition process, boost investments cadence, reduce dependence on fossil fuels, and mitigate the impacts of climate change. Transitioning to renewable energy not only will enhance energy independence in our beloved Mediterranean, but will also foster economic growth, create jobs, and protect the environment.
A collective commitment from governments, think tanks, IGOs, NGOs, private sector and all key players to this goal will pave the way for a resilient, clean energy future for all our Mediterranean nations.⁹⁹

If successfully undertaken, the creation of an interconnected Mediterranean system across the two shores of the Mediterranean Basin could play an essential role in bridging the world's largest market economy – the European Union - to the world's fastest growing population – Africa – linking the Mediterranean region to the sub-Saharan power pools in West Africa (West African Power Pool) and East Africa (East African Power Pool), accelerating Sub-Saharan Africa's decarbonisation.

Accelerating the clean energy transition in the region should be seen first and foremost as an existential matter of regional and global security.

We ask to strengthen international cooperation and diplomacy efforts in the Mediterranean region to accelerate the deployment of renewable energy capacity and promote the adoption of a common target of one terawatt of renewable energy capacity installed by 2030.



PROMOTERS:







































SIGNATORIES OF THE CALL TO ACTION:























GLOBAL SOLAR COUNCIL













*	Natural Resource Governance Institute
	Governance Institute



























