Sustainable Finance in the Mediterranean

What Impacts Do Different Instruments Deliver?

The Mediterranean is today the epicenter of a convergence of crises: an energy transition that is struggling to take off, a water stress becoming critical, a persistent atmospheric pollution, and unprecedented threats to biodiversity. Faced with this complexity, there is no single «financial solution». The crucial challenge for decision-makers is now to calibrate the response: which economic instrument is the most effective for which specific challenge? The latest Plan Bleu report evaluates the real effectiveness of available financial tools and mechanisms (Plan Bleu and UNEP/MAP, 2025). Here is the user guide to activate fiscal and financial levers across four strategic pillars: energy, water, air quality, and biodiversity.

1. Energy Taxation: when fiscal constraint stimulates innovation

The conclusions of the report show that no instrument works in isolation and that coordination between taxation, incentives, and standards constitutes the key to success. Indeed, the most effective approach to finance transition or marine restoration does not rely on a single tool, but on an integrated «policy mix» where mechanisms mutually reinforce each other. For instance, by default, taxing polluting activities must imperatively be accompanied by a reinvestment of revenues into sustainable alternatives or social aid; otherwise, these taxes are perceived as purely punitive and face strong political and social resistance. The three examples below perfectly illustrate the need for this synergy:

Taxes and feed-in tariffs: contrasted results. The Plan Bleu study on the impact of environmental taxes and feed-in tariffs (Feed-in Tariffs) on greenhouse gas emissions provides nuanced conclusions. Taxation alone remains insufficient: a 1 percentage point increase in environmental taxes reduces GHG emissions per capita by only 0.01 to 0.02%. To be effective, these taxes must be coupled with norms and standards that amplify their deterrent effect. The impact of the tax becomes significant when it is associated with strict regulatory rigor (such as the introduction of maximum emission standards or energy efficiency mandates). These standards block easy workarounds and force the company to innovate to comply with the law, while the tax financially penalizes its delay.

Eco-Innovation stimulated by taxation in the south: energy taxation does not hold back competitiveness in Southern Mediterranean countries, but stimulates eco-innovation. The study covering 6,952 companies in Algeria, Egypt, Jordan, Morocco, Tunisia, and Turkey reveals that the impact is particularly marked in services and commerce, where the tax incites reducing the energy bill through innovation. For heavy industries, the effect depends on ecological awareness. Two factors amplify this dynamic: companies that have already adopted voluntary energy management measures react more positively, and pressure from clients demanding environmental certifications sometimes doubles the incentive effect of the tax.

Social Cost of Carbon (SCC), adapting taxation to national capacities: to guarantee economic efficiency and social acceptability, carbon pricing must imperatively take into account the structural and fiscal capacities specific to each country.

The Plan Bleu report reveals a high heterogeneity of the Social Cost of Carbon (SCC) by 2100, reflecting major economic disparities: while Southern Europe shows a high SCC (750–800 USD/tCO_2) justifying ambitious

taxation, North Africa presents lower values (400–600 USD/tCO_2) linked to less diversified economies that are heavily dependent on fossil fuels. Imposing a uniform tax across the Mediterranean scale would be politically unrealistic and economically risky. A differentiated approach is essential by country, due to highly diverse climate vulnerabilities and fiscal capacities, to allow a progressive and socially acceptable transition. For example, countries in the northern basin (Southern Europe), equipped with advanced renewable energy infrastructures, can support high carbon taxes (reaching 100% of the social cost of carbon). Conversely, countries in the southern basin (North Africa), heavily dependent on fossil fuels, require a very progressive implementation and social safety nets (targeted cash transfers) to avoid major economic shocks.

2. From conservation to restoration through different financial models

The European Nature Restoration Law, adopted in 2024, and the global targets of the Kunming-Montreal Global Biodiversity Framework adopted in 2022, mandate finding sustainable financing for marine ecosystems. Regarding Marine Protected Areas (MPAs) and the fight against invasive species, this requires autonomous economic models capable of surviving budgetary uncertainties. The following comparative analysis of financial instruments reveals three complementary approaches tailored to Mediterranean contexts.

1. Conservation Trust Funds, such as the MedFund, make it possible to secure long-term financing for recurrent costs (patrols, scientific monitoring, maintenance) thanks to an initial capital of which only the returns are used (since 2022, the MedFund has been using this financial lever to specifically prioritize the financing of Marine Protected Areas that establish at least one strict «no-take zone»). This stability is crucial for countries in the South and East of the basin, which are often subject to unstable public budgets.

2. User fees allow for taxing tourism activities within MPAs, such as diving or recreational boating, to generate revenues linked to the intensity of use. The Brijuni National Park in Croatia perfectly illustrates this model. The park imposes entrance fees on visitors and fees on accommodation, diving, and kayaking. The revenues collected do not go into the State's general budget: they are strictly «earmarked». One part is kept directly by the park to guarantee its financial independence (self-financing of patrols and maintenance), and the other part feeds into the national «Parks of Croatia» fund to support nature protection on a larger scale.

3. The economic valuation of non-indigenous species
In the face of 27.3 billion dollars in regional costs (Kourantidou et al., 2021), developing markets for these species (food, gastronomy) transforms a threat into an opportunity, by encouraging local stakeholders toward their fishing and regulation. Pilot initiatives in the Mediterranean are already showing promising results in countering invasive alien species through economic tools, but with varying degrees of complexity:

- A successful example (the blue crab): the creation of new commercial supply chains for the blue crab has allowed transforming an ecological risk into a sustainable new economic opportunity for local fishers, whose model is self-financing thanks to market demand.

- A more complex example (the lionfish / pufferfish): in Cyprus and Turkey, governments have implemented direct subsidies and bonuses paid to fishers for each catch of lionfish or toxic pufferfish tail. Although this method effectively reduces local densities of these invasive species, it remains complex to sustain: it depends on continuous inflows of public money (short-term subsidies) and heavy community engagement campaigns, as these non-indigenous species struggle to generate a self-sufficient commercial market large enough to do without State aid.

PRIORITY	FINANCIAL INSTRUMENT	WHY USE IT? (MAJOR ASSETS)	POINT OF VIGILANCE (CHALLENGES)
1	**Trust Funds (e.g., MedFund)**	**Stability.** Guarantees long-term financing of management costs (salaries, fuel) independently of political uncertainties.	Requires impeccable governance and a significant initial capital.
2	**User fees (Tourism)**	**Return.** Captures tourism revenue to directly finance management measures within protected areas. Easy to implement.	Volatile revenues (dependent on tourist flows); requires a strict allocation of collected funds directly toward MPA management costs (patrols, scientific monitoring) or ecosystem restoration measures (instead of being absorbed by the general State budget or the municipality).
2	**Blended Finance (Public-Private)**	**Leverage effect.** Uses public money to reduce risk and attract private investors to finance nature restoration.	Risk of prioritizing financial profitability over real ecological impact.
2	**Public Subsidies (Redirected)**	**Power.** Redirecting existing aid (for example to fishing) toward restoration offers a massive immediate impact.	Demands a strong political positioning to confront existing lobbies.
3	**Blue Bonds**	**Scale.** Ideal for financing very large infrastructures (such as the construction of «defensive natural infrastructures» to protect coasts against erosion) or transboundary projects. (International example: the Republic of Seychelles successfully issued a 15 million USD blue bond to finance the expansion of its MPAs and the improvement of its fisheries governance).	Mechanism unsuited to small-scale local initiatives due to high transaction costs; requires extremely strict independent (third-party) audits on performance indicators to guarantee real ecological impact and avoid greenwashing.
4	**Carbon / Biodiversity Markets**	**Innovation.** Allows for the financial valuation of carbon storage (Posidonia meadows).	Immature market; lacks robust scientific standards to verify «ecological additionality» (proving that the gain would not have occurred without the financing) and concretely measure long-term positive results on biodiversity via standardized Measurement, Reporting, and Verification (MRV) methods.

Table 1. Summary of financial levers for marine biodiversity
Source: Synthesis based on Table 3 of Chapter 4 (Plan Bleu and UNEP/MAP, 2025)

3. Water: balancing financial agility and scale of action

Faced with the growing scarcity of water resources, financing water innovation requires tools adapted to project maturity and local investment capacities (see Table 2). Crowdfunding emerges as an agile tool particularly suited to contexts of banking gridlocks or small-scale projects. However, its impact remains constrained by the limited adoption of digital payment systems in certain Mediterranean regions, as well as by the relatively modest amounts that can be mobilized, which are often insufficient to support large-scale infrastructure investments.

For the latter, Public-Private Partnerships (PPPs) remain indispensable. The example of the New Cairo wastewater treatment plant in Egypt, the first of its kind in the country financed via a 20-year build-operate-transfer (BOT) agreement, demonstrates that PPPs offer the best capacity for mobilizing large-scale capital and allow transferring technical and financial risks to the private sector while reducing the government's financial burden. Nevertheless, the success of these partnerships relies on strict regulatory frameworks guaranteeing social equity of access to water, tariff transparency, and the maintenance of service quality.

Image 1. Water scarcity © Getty Images

FINANCIAL INSTRUMENT	EASE OF ACCESS	REGULATORY SUPPORT	SCALABILITY	ENVIRONMENTAL IMPACT	INVESTOR APPEAL
Public-Private Partnerships (PPP)					
Blended Finance					
Green Bonds					
Venture Capital / Private Equity					
Bank Loans					
Subsidies (Grants)					
Innovation Competitions					
Crowdfunding					

Table 2. Classification of financial instruments for water (Impact vs Feasibility)
Source: Synthesis based on Table 3 and Table A1 of Chapter 6 (Plan Bleu and UNEP/MAP, 2025)

High | Moderate | Low

4. Air Quality: when financial structuring matters

Plan Bleu's econometric analysis covering 21 Mediterranean countries demonstrates that the issuance of green bonds acts directly on local air quality.

Moderate maturity, key to effectiveness: environmental effectiveness does not depend solely on the financial volume but on the temporal structuring of the debt. The results indicate that bonds with moderate maturities (5 to 10 years) are approximately twice as effective in reducing atmospheric pollution as those with either shorter or longer maturities.This 5–10 year time horizon aligns well with the implementation cycles of projects such as renewable energy infrastructure deployment or the modernization of heavy industry (e.g., in Egypt, Morocco, or Turkey), providing sufficient time to roll out technologies effectively while still maintaining performance pressure and accountability for results.

Sectoral targeting and issuance frequency: the impact of green bonds is maximized when they are directed toward high-emission sectors and issued at a high frequency, rather than concentrated in a single large financing operation. For instance, in France, this steady issuance rhythm enables the continuous financing of projects aimed at improving urban air quality, ranging from the electrification of public transport to the deployment of industrial emissions control systems. Similarly, in Italy, frequent issuances support the gradual trans-

formation of industrial areas by financing, step by step, cleaner production technologies alongside enhanced air quality monitoring systems.

5. Perspectives and Conclusion: after the tools, the regional strategy

To transform sustainable finance into a driver of regional resilience, complementary levers must be mobilized in a coordinated manner.

i. Reforming public subsidies: redirecting public financial flows toward activities aligned with climate objectives requires the gradual phasing out of environmentally harmful subsidies, particularly those supporting fossil fuels and overfishing, alongside accompanying social measures to mitigate the associated impacts. This reform should be tailored to national contexts while remaining embedded in a shared regional ambition.

ii. Mediterranean taxonomy: the lack of shared definitions hampers cross-border investment and increases the risk of greenwashing. Developing a Mediterranean taxonomy of sustainable activities, adapted to regional specificities (such as water management, solar potential, and marine biodiversity), would establish a common language for financial markets and strengthen the consistency of investment decisions. Plan Bleu will address this work during the 2026–2027 biennium.

iii. Mobilization of private finance: the transition cannot be financed by public budgets alone. Blended finance, mobilizing public or philanthropic funds as a lever for private capital, is key to supporting innovative projects in renewable energies, water management, and ecological restoration. The Plan Bleu report scheduled for 2026 will provide a more in-depth analysis of these mechanisms.

iv. The MSSD as a structuring and strategic framework: finally, the Mediterranean Strategy for Sustainable Development (MSSD 2026-2035) constitutes a decisive opportunity to rethink the future of the Mediterranean (UNEP/MAP, 2025). Its update marks a turning point by explicitly recognizing the central role of economic and financial tools in operationalizing environmental commitments. The MSSD revolves around three financial priorities:

1. aligning public flows with sustainability goals,

2. reforming economic incentives by reducing environmentally harmful subsidies,

3. mobilizing the private sector via sustainable finance and blended finance.

It also offers a framework to respond to the growing fragility of local finance and taxation, while municipalities, on the front line face to environmental shocks, see their revenues threatened. In this context, Plan Bleu structures the «sustainable finance» pillar of the MSSD in order to equip decision-makers and accelerate the ecological transition. The MSSD is no longer just a framework of intentions: it must become the financial driver, for decision-makers and investors, of Mediterranean resilience.

Image 2. Green finance © Istock

BIBLIOGRAPHY

Kourantidou, M., Kaiser, B. A., & Fernandez, L. (2021). The economic cost of invasive species in the Mediterranean: Evidence from fisheries and tourism. Marine Policy, 127, 104442.

MedECC. (2020). Climate and Environmental Change in the Mediterranean Basin – Current Situation and Risks for the Future. First Mediterranean Assessment Report [W. Cramer, J. Guiot, & K. Marini (Eds.)]. Union for the Mediterranean, Plan Bleu, UNEP/MAP, Marseille, France, 632pp. ISBN 978-2-9577416-0-1. doi: 10.5281/zenodo.4768833.

Plan Bleu and UNEP/MAP. (2025). Environmentally Friendly Economic Tools and Finances: A Path Towards Sustainability in the Mediterranean: Plan Bleu Edited Volume, edited by R. Degron & C. Tsakas, October.

United Nations Environment Programme/Mediterranean Action Plan and Plan Bleu. (2020). State of the Environment and Development in the Mediterranean. Nairobi.

UNEP/MAP (2025). Mediterranean Strategy for Sustainable Development 2026–2035. Decision IG.27/4, UNEP/MED IG.27/21. Available at : https://wedocs.unep.org/items/81111d30-ff06-488c-b811-b9ea146813bb

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