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Citizenship, Governance,  
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**CIVEX**

# **Contribution of local and regional authorities to the development of the blue economy in the Mediterranean**



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# 1. Introduction

This final note was prepared as part of the project, *Contribution of local and regional authorities to the development of the blue economy in the Mediterranean*, commissioned by the European Committee of the Regions (CoR) under specific contract No. CDR 9102, implementing Framework contract CDR/TL1/11/2018/1.

The main aim of the contract is the preparation of a file note exploring the role of local and regional authorities in the Mediterranean region in the development of the blue economy. This includes a survey of coastal tourism; food, health, and ecosystem services; energy at sea and raw materials; maritime transport activities; and environmental monitoring and protection of maritime areas.





## 2. Main blocking points for LRAs, possible solutions and recommendations

This section identifies the main issues which mitigate the efficacy of LRA efforts towards capacity building in relation to the blue economy; it also provides propositions and recommendations as to how the pinpointed obstacles could be overcome and how this could affect the future performance of LRAs in the area of the blue economy. The barriers have been divided into three main categories: 1) technical barriers, encompassing issues such as the quality and availability of data as well as the lack of managerial tools and relevant digital expertise at LRAs; 2) structural barriers which include problems like division of powers, financial resources, and inadequate regional integration; and 3) environmental issues reflecting degradative factors such as coastal tourism's fuelling of air pollution, coral reef degradation, externalities to climate change, and marine litter.

### **Technical barriers**

#### *Data availability and quality*<sup>1</sup>

Up-to-date and reliable information on relevant websites is often unavailable: research reports and thematic qualitative and quantitative data are often outdated; websites, set up by dispersed national or international agents, are oftentimes only periodically active and/or available only in local language(s). Data definitions, pertaining to fisheries or aquaculture, among others, may vary on a country basis (throughout the entire Mediterranean region). 'Maritime agriculture' activities are not excluded from the overall 'agriculture' category at the country level and are aggregated separately instead, leading to a lower comparability of research results. This issue is exacerbated when data are gathered from national statistical offices (databases) which deploy country-specific aggregation methods. Additionally, difficulties pertaining to data gathering and processing emerge if a country's coastline belongs (geographically and administratively) to several sub-regions.

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<sup>1</sup> Developing Blue economy through better methodology for assessment on local and regional level [CoR 2016] and FAO and General Fisheries Commission for the Mediterranean. Sustainable Fisheries and Aquaculture in the Mediterranean. Pêcheries et Aquaculture Soutenables en Méditerranée. Marseille: Blue Economy Project Conference, 30-31 May 2017. Available at: [https://planbleu.org/sites/default/files/upload/files/Indicators\\_for\\_the\\_BE\\_in\\_the\\_Mediterranean.pdf](https://planbleu.org/sites/default/files/upload/files/Indicators_for_the_BE_in_the_Mediterranean.pdf)

## *Smart technologies, managerial tools, and know-how<sup>2</sup>*

LRAs tend to suffer from inadequate capacity and managerial/administrative resources which do not allow them to use existing databases and information to their benefit. LRAs also lack both adequate tools and know-how to benefit from the information made available to them. This is a major obstacle, as processing and benefitting from maritime data often requires the use of satellite data.

Moreover, it would appear that in general, LRAs may suffer from insufficient experience in adopting smart technological solutions for managerial purposes as well as lack the experience required to fully benefit from utilising techniques such as science-based management.<sup>3</sup> This also mitigates the potential value added created by the implementation of new technological solutions. By way of example, the FAO and GFCM highlighted that LRAs suffered from a lack of innovative solutions, especially as far as SSF value chains were concerned. The problem of the management of SSF was the most pronounced in the Black Sea and in the Central Mediterranean Sea, where SSF were prevalent.

### ➤ *Proposed solutions and policy recommendations*

The scattered information sources, fragmented datasets, and incomparable granular data stem from the numerous international, regional, and local efforts to gather, process, and disseminate maritime data. As highlighted in a 2016 CoR report,<sup>4</sup> while these sources have been available to academia and professional research agencies, LRAs were not always aware that such sources existed or were unable to access them. **The identification and collection of the relevant data sources in one common database (repository)** might facilitate future research carried out by LRAs, with the 2016 CoR report referencing the European Marine Observation and Data Network (EMODnet, which is discussed more in-depth in Section 5) as a salient step towards reaching this goal. Apart from EMODnet, both the GFCM Statistical Bulletins and FAO-FishStat Database,<sup>5</sup> as well as the Copernicus satellite<sup>6</sup> (fully operational since

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<sup>2</sup> FAO and General Fisheries Commission for the Mediterranean. The State of Mediterranean and Black Sea Fisheries, Rome, 2018 & Developing Blue economy through better methodology for assessment on local and regional level [CoR 2016]; FAO and General Fisheries Commission for the Mediterranean. Sustainable Fisheries and Aquaculture in the Mediterranean. Pêcheries et Aquaculture Soutenables en Méditerranée. Marseille: Blue Economy Project Conference, 30-31 May 2017.

<sup>3</sup> This is of course not true of all LRAs, and many major coastal cities may have sufficient capacity. But on average, levels of capacity are likely to be lower at LRAs.

<sup>4</sup> Developing Blue economy through better methodology for assessment on local and regional level [CoR 2016].

<sup>5</sup> GFCM Statistical Bulletins and FAO-FishStat Database are referenced as reliable sources providing relevant data for the entire Mediterranean Basin and the Black Sea Region (as in Plan Bleu. Economic and social analysis of the uses of the coastal and marine waters in the Mediterranean, characterization and impacts of the Fisheries, Aquaculture, Tourism and recreational activities, Maritime transport and Offshore extraction of oil and gas sectors. Technical Report, Plan Bleu, Valbonne, 2015 p. 28).

<sup>6</sup> Also mentioned in Developing Blue economy through better methodology for assessment on local and regional

2016<sup>7</sup>) could provide LRAs with high quality data that could be helpful in implementing science-based management systems and identifying important issues concerning fish farms, aquaculture, and illicit activities (see Section 4 for more information).

In order to fully benefit from the use of modern data sources and technologies, LRAs need to **boost their administrative skills** by investing in trainings and/or broadening their human capital base.<sup>8</sup> Employees should gain relevant expertise in the deployment of smart technologies and tools via dedicated skill-upgrading processes. Apart from **raising awareness and skills related to modern technologies**, made-to-measure managerial trainings and the utilisation of smart tools in decision-making processes, combined with a better understanding of the role of science-based management in the areas of food, health, and ecosystems, would maximise the impact of LRAs on the development of the (local) blue economy. Policy making could be reinforced through commissioning socio-economic analyses (both qualitative and quantitative), which in turn could enhance regulatory and (especially) management frameworks.<sup>9</sup>

For example, in an attempt to address managerial issues in the area of SSF, a survey on national marine recreational fisheries was circulated to all GFCM contracting parties and cooperating non-contracting parties (CPCs) before the first meeting of the Working Group on Small-Scale and Recreational Fisheries was convened in 2017. The obtained outcomes indicated that data collection in the sector was limited and diverged between countries. In particular, it has been suggested that a lack of data on licensing for recreational fishing (and specifically the lack of information on the volume of catches and difficulties in monitoring fish stocks) has been a significant contributor to elevated fishing mortality. Recreational fisheries have been an important economic factor propelling coastal tourism (they also appear to have a cultural dimension). However, a case was made that these activities were significant contributors to elevated fishing mortality<sup>10</sup> due to a lack of information on the volume of catches, difficulties in monitoring fish stocks, and sub-optimal management of fisheries. To alleviate the problems stemming from insufficient data availability, a handbook was developed outlining the methodological framework to be implemented, along with appropriate monitoring procedures, by Mediterranean and Black Sea countries.<sup>11</sup>

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level [CoR 2016].

<sup>7</sup> <https://www.copernicus.eu/en/copernicus-satellite-data-access>

<sup>8</sup> Developing Blue economy through better methodology for assessment on local and regional level [CoR 2016].

<sup>9</sup> FAO and General Fisheries Commission for the Mediterranean. Sustainable Fisheries and Aquaculture in the Mediterranean. Pêcheries et Aquaculture Soutenables en Méditerranée. Marseille: Blue Economy Project Conference, 30-31 May 2017.

<sup>10</sup> Hyder K. et al., (2017). Recreational sea fishing in Europe in a global context – participation rates, fishing effort, expenditure, and implications for monitoring and assessment. *Fish and fisheries* 19: 225-243.

<sup>11</sup> FAO and General Fisheries Commission for the Mediterranean. The State of Mediterranean and Black Sea

## **Structural barriers**

### ***Division of powers***

Due to the high level of centralisation of public administration across the region (even as decentralisation efforts are underway in Morocco and Tunisia<sup>12</sup>), the capacity of LRAs to be actively involved in shaping policies pertaining to the blue economy is limited. For instance, concerning energy and the exploitation of raw materials, most activities take place within exclusive economic zones (EEZ), where national-level authorities are responsible for policy design and implementation, leaving minimal room for the contribution of LRAs.

### ***Financial resources***<sup>13</sup>

Related to limited capacities is the lack of adequate financial resources, as the budgets of LRAs frequently come from subsidies and transfers from central governments, making them heavily dependent upon the fiscal health of the government. Municipalities are also normally unable to efficiently levy local taxes, with local governments having ‘very limited access to funding’.<sup>14</sup> This in turn prevents LRAs from investing in modern technologies (such as marine monitoring, data collection services, or mobile and web applications) and training for their staff to develop the skills needed to use them. Additional funds are likewise needed in order to keep up with technological updates.

Funds at the local and regional level are also needed to improve the climate and environmental footprint, especially concerning development of the energy sector and the exploitation of sustainable sources. This is especially true for the energy fields related to the blue economy. For instance, winds farms in North Africa are predominantly located onshore – despite having lower performance levels than the offshore ones – due to lower costs associated with establishing them.

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Fisheries 2018. Rome, 2018 p.99

<sup>12</sup> [https://www.kas.de/c/document\\_library/get\\_file?uuid=3676dc02-4110-6654-8539-cba354836aeb&groupId=252038](https://www.kas.de/c/document_library/get_file?uuid=3676dc02-4110-6654-8539-cba354836aeb&groupId=252038); <https://platforma-dev.eu/wp-content/uploads/2017/03/Maghreb-Study-on-the-decentralised-cooperation-between-the-regional-authorities-of-Arab-Maghreb.pdf>

<sup>13</sup> Developing Blue economy through better methodology for assessment on local and regional level (CoR 2016).

<sup>14</sup> <http://platforma-dev.eu/wp-content/uploads/2017/03/World-Local-and-regional-government-associations.pdf>; See more in the CoR field note *The contribution of local and regional associations to regional integration in the Mediterranean* (2019).

## *Regional (dis)integration*

Another obstacle to the successful management of the blue economy by LRAs is limited regional integration, especially in the field of trade. Although a large majority (75%) of goods in the Mediterranean Basin are exchanged via maritime transport, the total intra-Mediterranean share of all the goods combined is only around 25% of the traffic volume. Exchanges between the majority of the Euro-Mediterranean Regional and Local Assembly (ARLEM) ports are low, with the South-North route being predominant as a result of oil and gas exports, despite far greater potential in this respect.<sup>15</sup> It can be concluded that while transit transport in the Mediterranean Basin is well developed, trade integration, particularly between countries from the Southern shore, is weak. This significantly hinders cooperation and trade relations between the regions at stake and limits employment opportunities as well as people-to-people contacts.

### ➤ *Proposed solutions and policy recommendations*

There is a need to incentivise the participation of LRAs in the implementation of National Energy Efficiency and Energy Transition Action Plans through the transferral of clear and delimited competencies. It should be noted that less than half of the studies consulted on the subject of ‘Energy at sea and raw materials in the Mediterranean’ included mentions of the role of LRAs in the process of implementing policy-oriented measures or in the overall development of the renewable energies sector. Of those that did, the recommendation was to include LRAs in awareness raising campaigns on the importance of transitioning to energy efficient models. As such, LRAs should **advocate for the creation of legal frameworks** in which they take advantage of their local knowledge to foster the participation of all relevant actors, but also to **push for a role in which their contribution can go beyond consultative processes**.

Given tight budgets at the LRA level, LRAs need to think with a longer-term perspective when deciding on investments. Products and solutions, especially technology, boosting development of the blue economy (i.e. tools for marine spatial planning) will likely improve on a regular basis, and thus investing in tools which are far from the most effective and innovative today may quickly prove counterproductive. To secure enough investments, LRAs should consider working extensively with the private sector as a partner (rather than as an adversary), either in creating public-private partnerships (PPPs) in the area of the blue economy or by turning over key facets of coastal management exclusively to the private sector. In this way, incentives can be aligned, and

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<sup>15</sup> [http://planbleu.org/sites/default/files/publications/cahier7\\_transport\\_en.pdf](http://planbleu.org/sites/default/files/publications/cahier7_transport_en.pdf)

long-term planning integrated into investments.

At the same time, funding by European institutions could be a key element that could give impetus to projects that are focused on the transition towards better energy efficiency and the development of sustainable energy projects. The lack of coordination between LRAs is also an area of concern and could be promoted through the EU-funded projects. For instance, sustainable maritime transport – currently a priority of the Union for the Mediterranean (UfM) in the framework of its three core projects: LOGISMED-TA,<sup>16</sup> Motorway of the Sea (MoS),<sup>17</sup> and OPTIMED<sup>18</sup> – encourages LRAs to **create regional policy networks in order to intensify social and economic ties based on blue economy foundations**. The coastal LRAs which do not participate in any of the projects should at least consider joining as observers or third parties.

This is especially important because, as the UfM believes, the relocation of industrial production from East Asia to the Mediterranean region is slowly becoming visible.<sup>19</sup> This poses a significant opportunity for the regions able to offer an adequately skilled workforce as well as a relevant transportation hub so that manufactured products can be delivered where needed without delays. In the Mediterranean Basin, none of the transportation and freight modes are as effective as maritime transportation, if it is managed and operated in an appropriate manner.

Port cities and coastal regions in the Mediterranean Basin would also need to cooperate in launching and maintaining multi-functional and multi-modal port hubs, as these will also help boost inter-Mediterranean exchanges of goods.

Finally, regarding efforts to streamline processes, one good example is provided by the Israeli authorities in Tel Aviv and their handling of the Jaffa Port. City authorities created a company called Ataraim to oversee creating a space for marine and urban innovation from which blue economy and the world of clean energy ventures will operate.<sup>20</sup>

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<sup>16</sup><https://ufmsecretariat.org/project/ufm-labelled-project-logismedta-to-contribute-to-the-creation-of-jobs-in-the-region-2/>

<sup>17</sup> <https://ufmsecretariat.org/project/motorway-of-the-sea-mos-turkey-italy-tunisia-project/>

<sup>18</sup> <https://ufmsecretariat.org/project/optimed-implementation-towards-a-new-mediterranean-corridor-from-south-eastern-to-north-western-ports/>

<sup>19</sup> <https://ufmsecretariat.org/ufm-suez-conference-maritime-transport-2018/>

<sup>20</sup> The information was provided by Ms. Yael Enoch-Maoz of the International Relations department at the Mayor's Office in Tel-Aviv, Israel, in an e-mail received on 17 June 2019 in response to a request for information sent to Ms. Shirley Pauker-Kidron, Advisor for International Affairs at the Mayor's Office in Tel-Aviv, Israel, on 4 June 2019.

## **Environmental barriers**

### ***Coastal tourism and air pollution***

International coastal and maritime tourism activities are dependent on airline and cruise transport, which are major sources of carbon dioxide emissions. As noted by experts consulted for this study, mass coastal and maritime tourism are present in the Mediterranean at large and the increasing sea and air traffic, critical sources of environmental pollution (waste, water, and carbon), and natural resource depletion (land, biodiversity, and water, among others) need to be tackled urgently. One interviewee, Dr. Samir Grimes, believes that ‘human pressure on the Mediterranean natural ecosystems’ – both due to high birth rates and the growing number of tourists visiting the Mediterranean – ‘combines the effects of demographics and economic activities’.

### ***Coral reef degradation***

The latest Intergovernmental Panel on Climate Change (IPCC) report (2018)<sup>21</sup> estimates that if there is a 1.5 degree Celsius increase in the global temperature, between 70% and 90% of global reefs will be destroyed. A further increase of 2 degrees Celsius might result in the loss of 99% of existing global reefs. Such a catastrophic drop in coral reefs would seriously impact the tourism sector in many coastal communities, significantly hindering the incomes of local communities employed in tourism and hospitality (in particular for Egypt and its Red Sea coral reefs as discussed in Mohamed et al. [2012],<sup>22</sup> but also for Tunisia). Perhaps more importantly, the disruption of fragile ecosystems could diminish food security, posing a real threat for local communities on both shores of the Mediterranean.

### ***Climate change externalities***

Climate change and higher global temperatures can lead to higher sea levels. Effectively, ‘coastal erosion, property inundation, and saltwater intrusion into freshwater supplies and agricultural irrigation’ may impact the broader MENA region, as noted by the World Bank in January 2019.<sup>23</sup> As one of the experts

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<sup>21</sup> IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, Maycock, M. Tignor, and T. Waterfield (eds.)]. World Meteorological Organization, Geneva, Switzerland.

<sup>22</sup> <https://pdfs.semanticscholar.org/046e/3dcf523f72e983a24800d14732bdc12e4a3f.pdf>

<sup>23</sup> <http://documents.worldbank.org/curated/en/591141547220437102/pdf/133686-QN-172.pdf>

interviewed suggested, the combined risks arising from the above-mentioned trends may affect five inter-connected domains: water resources, ecosystems, food safety and security, health, and human security, although the impacts and expected risks differ for each of them.<sup>24</sup> Further desertification and soil degradation are equally important, particularly for freshwater supplies, given the inter-connectedness of the ecosystems. As it is predominantly LRAs that are responsible for managing water resources at the local level, they are heavily involved in mitigating the effects of climate change on freshwater levels and water quality.

### ***Marine litter***

Marine litter across the Mediterranean is affecting the coastal and marine environment, posing a threat to fauna, flora, biodiversity, and human health, according to a recent study undertaken in the framework of the AMARe Project (Actions for Marine Protected Areas) funded by Interreg MED Programme 2014–2020.<sup>25</sup> The results of the project prove that, apart from Malta, every other Mediterranean country's coastline is polluted more with plastic from their own terrestrial inputs than from maritime transport. Furthermore, plastic islands tend to accumulate not only in the sea bottoms, but also near to coastlines, affecting ecosystems and even livelihoods.

### ➤ ***Proposed solutions and policy recommendations***

LRAs have the capacity and responsibility to positively influence the development of coastal maritime tourism through governance mechanisms at their level to ensure adequate balance and sustainability between and within Mediterranean territories. This has to be done by regularly planning and monitoring activities, especially those related to terrestrial pollution, implementing sound and appropriate regulation (at an environmental, social, and economic level,) ensuring law enforcement, as well as involving all stakeholders (tourism industry, local actors, and NGOs) in the policy and decision-making processes. However, a broader institutional framework is also needed at a supra-national level to make sure coastal and maritime tourism is consistent with global commitments such as the Paris Agreement, the Convention on Biological Diversity (CBD), and Agenda 2030, as well as at the regional level with the MSSD (Barcelona convention).

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<sup>24</sup> Insight provided by Dr. Samir Grimes, Professor-Researcher representing the National High School of Marine Sciences and Coastal Management and National Hub of the WestMed Initiative of Blue Economy in West Mediterranean, in an e-mail received on 21 June 2019.

<sup>25</sup> Liubartseva S., Coppini G., Lecci R., Clementi E. Tracking plastics in the Mediterranean: 2D Lagrangian model, 2018, Marine Pollution Bulletin, Volume 129, Issue 1, Pages 151-162, ISSN 0025-326X, DOI: 10.1016/j.marpolbul.2018.02.019.



Although localised actions might not be fully sufficient to save coral reefs if no ambitious policies are in place globally (as the latest research suggest<sup>26</sup>), the former still has a major impact on the condition of the latter. Addressing local pollution, hiring local guides for open water diving, and the coordination of fishing practices at the local level can nevertheless assist in the protection of coral reefs and improve local maritime stewardship.

Locally and regionally managed climate change adaptation, and mitigation plans and actions as well as participation in national and global initiatives tackling climate change (i.e. the Covenant of Mayors or Energy Cities) can help cities and regions become more resilient and prepared. Such an affiliation also comes along with acquiring specific know-how from other participating authorities. According to our interviewee, Dr. Samir Grimes, promoting regional networks such as the Mediterranean Experts on Climate and Environment Change (MedECC), may contribute to a better understanding of climate change's impact in the region. This type of cooperation can help to appropriately tackle the problem of climate change and to build the resilience of cities, regions, and countries alike.<sup>27</sup>

Actions undertaken in the framework of the SwitchMed Programme,<sup>28</sup> such as seminars on best practices in reducing the consumption of single use plastic bags, could be disseminated more broadly, as their current outputs can be assessed as very promising. Focusing on incentives for environmentally-friendly alternatives to single-use plastic products could be an opportunity for LRAs, not only from an environmental perspective, but also because it enables LRAs to form partnerships with interested businesses and civil society actors while helping to acquire new abilities related more to 'technical assistance'. Investments in new processes targeting recycling and waste management should also be considered.

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<sup>26</sup> I.e. Rebecca L. Maher, Mallory M. Rice, Ryan McMinds, Deron E. Burkepile, Rebecca Vega Thurber. Multiple stressors interact primarily through antagonism to drive changes in the coral microbiome. *Scientific Reports*, 2019; 9 (1) DOI: 10.1038/s41598-019-43274-8.

<sup>27</sup> *Supra* note 32.

<sup>28</sup> <https://www.switchmed.eu/en>



### 3. Importance of the 5+5 Dialogue experience in the blue economy

The Mediterranean Sea region is split into two well-defined basins, the Western and Eastern Mediterranean sub-regions. Of the two, the Western Mediterranean has seen more initiatives aimed at increasing multilateral stewardship at the sub-regional level, with the 5+5 Dialogue most prominent among them.<sup>29</sup> The Dialogue includes ten Western Mediterranean countries on both shores of the sea (Spain, France, Italy, Malta, and Portugal from the north and Algeria, Libya, Morocco, Mauritania, and Tunisia from the south).

The Dialogue was originally created in 1990 but was on hiatus for ten years, with geopolitical considerations (specifically the Lockerbie terrorist attack sponsored by Libya) preventing any true ‘dialogue.’ In the intervening years, the structures built with the Euro-Mediterranean Partnership from 1995 began to gather steam, and the relevance of having such an intergovernmental forum became more apparent (especially since the Dialogue ‘was an attempt to avoid the difficulties faced by the Euro-Mediterranean process’)<sup>30</sup>. onwards the Dialogue resumed in Lisbon in January 2001. In addition to high-level foreign affairs ministerial meetings (a key component of the Dialogue), the forum has expanded its work into issues relevant for the blue economy, such as transport and migration, in addition to explicitly examining renewable energy and environment, tourism, and water issues.<sup>31</sup> However, the Dialogue has only embraced these issues as of late, as in 2003 it resolved to focus on migration issues and by 2009 was still ‘focused almost exclusively on a securitized approach to stemming migration.’<sup>32</sup> With the additional involvement of the European Union and its affiliated institutions, as well as the inclusion of actors such as UfM, the Dialogue is attempting to become a comprehensive forum for regional stakeholders. Whether or not it can become so remains to be seen, but it has provided an institutional framework for pursuing cooperation related to the blue economy.

In addition to the Dialogue, there is a tradition of cooperation on marine and maritime issues in the Western Mediterranean that dates back to the adoption of the Barcelona Convention,<sup>33</sup> one of the oldest regional sea conventions, adopted

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<sup>29</sup> For a fuller description of the Dialogue, see <https://medthink5plus5.org/en/the-dialogue-55/#dialogue.whose>.

<sup>30</sup> Collyer, M. (2016). Geopolitics as a migration governance strategy: European Union bilateral relations with Southern Mediterranean countries. *Journal of Ethnic and Migration Studies*, 42(4), 606-624.

<sup>31</sup> *Ibid.*

<sup>32</sup> See Kausch, K., & Youngs, R. (2009). The end of the ‘Euro-Mediterranean vision’. *International Affairs*, 85(5), 963-975.

<sup>33</sup> Convention for the Protection of the Mediterranean Sea Against Pollution. See: [http://wedocs.unep.org/bitstream/id/53143/convention\\_eng.pdf](http://wedocs.unep.org/bitstream/id/53143/convention_eng.pdf)

in 1975 under the umbrella of the United Nations Environment Programme (UNEP). This convention is the first integrated governance initiative in the Mediterranean that fosters cooperation on the preservation of the marine environment. Prior to the Convention, the General Fisheries Commission for the Mediterranean provided (since 1949) a cooperation framework on thematic issues, such as fisheries, under the FAO.

In 2015, the UfM convened the first Ministerial Conference on Blue Economy that agreed on ‘the need for the Mediterranean region to make the best use of the potential of the blue economy, to promote growth, jobs and investments and reduce poverty’,<sup>34</sup> while inviting the participating countries to explore avenues for sub-regional cooperation. A few months later, in 2016, the Ministers of Foreign Affairs of the 5+5 Dialogue<sup>35</sup> envisaged a Western Mediterranean partnership. In response to that vision, in April 2017, the European Commission launched the initiative for the sustainable development of the blue economy in the Western Mediterranean region, also known as the WestMED initiative.<sup>36</sup>

This initiative is based on the European Commission’s long-standing experience with sea basin and macro-regional strategies, such as the EU Maritime Strategy for the Atlantic,<sup>37</sup> the EU Strategy for the Baltic Sea Region,<sup>38</sup> and the EU Strategy for the Adriatic and Ionian Region.<sup>39</sup> It is also based on over two decades of work within the 5+5 Dialogue, which has created strong ties between the participating countries, and it builds on other EU policies linked to the region, such as the European Neighbourhood Policy Review from 2015 and the Joint Communication on International Ocean Governance from 2016.

Following the launch of the WestMED initiative by the European Commission in 2017, the ministers responsible for maritime affairs<sup>40</sup> in Western Mediterranean countries gathered in Naples (Italy) on 30 November 2017 with the aim to endorse and launch the WestMED initiative, as well as to establish its governance. In parallel to the Ministerial Meeting, a two-day UfM Stakeholder Conference on the Blue Economy took place on 29-30 November. The conference gathered 400 participants from 30 countries representing national, regional, and local authorities, the private sector, international organisations, academia, and civil society organisations engaged with marine and maritime

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<sup>34</sup> See: [https://ufmsecretariat.org/wp-content/uploads/2015/11/2015-11-17-declaration-on-blue-economy\\_en.pdf](https://ufmsecretariat.org/wp-content/uploads/2015/11/2015-11-17-declaration-on-blue-economy_en.pdf)

<sup>35</sup> See: <https://medthink5plus5.org/wp-content/uploads/2018/02/2016-Marseille-A-Etrangeres-pdf.pdf>

<sup>36</sup> Communication from the European Commission on WestMED, COM(2017)183.

<sup>37</sup> Communication from the European Commission on the Maritime Strategy for the Atlantic, COM(2011)782.

<sup>38</sup> Communication from the European Commission on the EU Strategy for the Baltic Sea Region, COM(2012)128.

<sup>39</sup> Communication from the European Commission on the EU Strategy for the Adriatic and Ionian Region, COM(2014)357.

<sup>40</sup> See Ministerial Declaration: [https://ec.europa.eu/maritimeaffairs/sites/maritimeaffairs/files/2017-11-30-west-med-declaration\\_en.pdf](https://ec.europa.eu/maritimeaffairs/sites/maritimeaffairs/files/2017-11-30-west-med-declaration_en.pdf)

issues, signalling the importance given to non-state actors in this process.

One year later, on 4 December 2018, a second Ministerial Meeting<sup>41</sup> of the countries participating in the WestMED initiative took place in Algiers (Algeria), in which a roadmap for the initiative was adopted. Six priorities for action were identified in the framework of the initiative: 1) maritime cluster development; 2) biodiversity and maritime habitat conservation; 3) sustainable consumption and production; 4) the development of coastal communities and sustainable fisheries and aquaculture; 5) skills development and circulation; and 7) maritime safety and the fight against marine pollution.

With regards to the governance of the initiative, political coordination is provided through ad-hoc ministerial meetings based on the initiative of the co-presidency of the WestMED Steering Committee, exploiting (as much as possible) the existing mechanisms and processes of the UfM Senior Officials and Ministerial Meetings. The aforementioned WestMED Steering Committee is the decision-making body of the initiative, which prioritises actions and proposes, approves, and labels projects in line with the decisions taken at the ministerial level. Likewise, this initiative is funded by channelling, aligning, and coordinating existing EU, national, and regional funding that is relevant to the goals of the WestMED. In this regard, the Steering Committee has identified appropriate labelling criteria, and projects judged to contribute to the initiative's objectives are assessed by the governance bodies of the initiative and advertised for possible funding (e.g. macro-regional strategies).<sup>42</sup>

Technical and administrative support is of utmost importance for the effective and efficient performance of the functions attributed to the Steering Committee. To this aim, the European Maritime and Fisheries Fund has funded the establishment of a WestMED Assistance Mechanism, which supports the governance and implementation of the initiative. In addition, the European Commission ensures a strategic approach at the EU level, including coordination with existing EU-related policies and initiatives, including the adjoining Atlantic Action Plan and the EU Strategy for the Adriatic and Ionian Region, as well as with the BLUEMED<sup>43</sup> and Partnership on Research and Innovation in the Mediterranean Area (PRIMA)<sup>44</sup> initiatives, and alignment to

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<sup>41</sup> See Ministerial Declaration: [https://ec.europa.eu/newsroom/mare/document.cfm?doc\\_id=55934](https://ec.europa.eu/newsroom/mare/document.cfm?doc_id=55934)

<sup>42</sup> [https://ec.europa.eu/maritimeaffairs/sites/maritimeaffairs/files/2017-11-30-west-med-declaration-annex\\_en.pdf](https://ec.europa.eu/maritimeaffairs/sites/maritimeaffairs/files/2017-11-30-west-med-declaration-annex_en.pdf)

<sup>43</sup> BLUEMED is the research and innovation initiative for promoting the blue economy in the Mediterranean Basin through cooperation. It is funded by the European Commission within the Horizon2020 framework programme.

<sup>44</sup> The Partnership for Research and Innovation in the Mediterranean Area (PRIMA) is a joint programme focused on the development and application of solutions for food systems and water resources in the Mediterranean basin. It is financed through a combination of funding from participating countries and a contribution from the EU through Horizon 2020 programme.

funds and programmes such as the European Neighbourhood Instrument (ENI) and Interreg programmes.

In order to ensure full coordination with the governance in place at the level of regional organisations, such as the UfM Senior Officials Meetings (SOM) and the Blue Economy Working Group, the WestMED Steering Committee is convened as much as possible in conjunction with UfM decision-making bodies and it periodically informs these bodies on the progress of the implementation of the initiative. In return, the UfM Secretariat ensures coordination at the UfM level and liaises with relevant regional organisations and institutions (including financial ones) to mobilise resources and capacities for the implementation of the initiative and its projects.

Despite the inter-governmental nature of the 5+5 Dialogue, the WestMED initiative has involved the LRA dimension from its very first inception, not only through the incorporation of LRAs as key stakeholders in various official documents and appeals to coordinate funding efforts with those existing at the local and regional levels, but also within the scope of governance. Indeed, two organisations composed of regional authorities – the Committee of the Regions and the Conference of Peripheral and Maritime Regions – were invited to the WestMED Steering Committee as observer members. It should also be noted that among the projects supported by this initiative, there are several financed by the European Neighbourhood Instrument (ENI) and the transnational European Cooperation Programme for the Mediterranean area (Interreg MED) programmes which are currently being implemented by LRAs.<sup>45</sup>

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<sup>45</sup> For a comprehensive list of existing or ongoing projects, some of which are carried out by LRAs, and which are linked to the WestMED priorities for action under funding schemes such as Interreg, ENI South MED, Horizon 2020, and others, please refer to the annexed table (pp. 16-31) at [https://ec.europa.eu/newsroom/mare/document.cfm?doc\\_id=55934](https://ec.europa.eu/newsroom/mare/document.cfm?doc_id=55934)

## 4. Available data sources identified

Marine data sources are, in general, numerous and scattered, which makes it challenging to extract relevant information from the stream of data, especially for non-experts. This includes LRAs who rely on maritime data for the development of the blue economy on a local and regional level. Accordingly, the following section provides an overview of sources accessible for LRAs in South Mediterranean partner countries (SMCs).<sup>46</sup> It does so by building on and extending the 2016 CoR study, ‘Developing Blue Economy through better methodology for assessment on local and regional level’.<sup>47</sup>

### *Copernicus*

One of the most comprehensive sources of data in the area of the blue economy is the EU’s *Copernicus* programme. Based on satellite information and in-situ systems, the platform offers a huge amount of open, near-real-time, and free maritime and marine data accessible to citizens and organisations around the world.<sup>48</sup> The coverage of the database was increased when the African Union Commission and the European Commission signed a cooperation arrangement, sharing satellite data and information in June 2018.<sup>49</sup>

*Copernicus* explicitly addresses policy makers and local authorities. To cite the platform’s operator, *Copernicus* aims at the provision of information ‘to help service providers, public authorities, and other international organisations improve the quality of life for the citizens of Europe.’<sup>50</sup> Of particular importance here is the *Copernicus Marine Environment Monitoring Service* (CMEMS), which produces data on the physical and biogeochemical state of the world’s ocean in general, and of the Mediterranean Sea in particular.<sup>51</sup> Through the programme, LRAs from the SMCs have access to important parameters concerning the Mediterranean Sea and their own coastlines, ranging from salinity, temperature, currents, sea level, nutrients, and plankton to oxygen

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<sup>46</sup> This includes Egypt, Turkey, Algeria, Morocco, Tunisia, Israel, Jordan, Lebanon, Palestine\*, and Libya. \*This designation shall not be construed as recognition of a State of Palestine and is without prejudice to the individual positions of the Member States on this issue.

<sup>47</sup> Charalambous, Alexander. *Developing Blue Economy through better Methodology for Assessment on Local and Regional Level*. Committee of the Regions, 2017.

[https://cor.europa.eu/en/engage/studies/Documents/order%206203\\_Blue%20Economy\\_form\\_WEB.pdf](https://cor.europa.eu/en/engage/studies/Documents/order%206203_Blue%20Economy_form_WEB.pdf)

<sup>48</sup> *Access to Data*. Copernicus Website, European Union. <https://www.copernicus.eu/en/access-data>. Accessed 1 June 2019.

<sup>49</sup> *Copernicus In Brief*. Copernicus Website, European Union. <https://www.copernicus.eu/en/about-copernicus/copernicus-brief>. Accessed 1 June 2019.

<sup>50</sup> *About Copernicus*. Copernicus Website, European Union. <https://www.copernicus.eu/en/about-copernicus>. Accessed 1 June 2019.

<sup>51</sup> *Ibidem* and *Copernicus Marine Environment Monitoring Service*. Copernicus Website, European Union. <https://www.copernicus.eu/en/services/marine>. Accessed 1 June 2019.

levels.<sup>52</sup> The information provided not only covers currently available data, but also includes forecasts as well as data archives.<sup>53</sup> By drawing a picture of the state of the ocean both literally and metaphorically, the CMEMS lays the foundation for the development of the blue economy. How this works in practice is illustrated by the case of fish and shellfish farmers in France, Ireland, Portugal, Spain, and the UK. In these Atlantic countries, researchers compiled forecasts on harmful algal blooms with satellite data provided by *Copernicus*, enabling fish farmers to react in advance and increase their productivity by 5%.<sup>54</sup>

## ***EMODnet***

Another rich source for marine-related data is the *European Marine Observation and Data Network* (EMODnet). Organised around seven discipline-based themes, the EMODnet provides access to ‘standardized observations, data quality indicators and processed data products.’ The network, which consists of more than 160 different organisations, started with the aspiration to address ‘threats to the marine environment, in the development of policies and legislation to protect vulnerable areas.’<sup>55</sup> Furthermore, ‘accessible marine data is a prerequisite for further sustainable economic development, the so-called “blue growth”.’<sup>56</sup> At present, the project is in its final development phase and expected to be completed in 2020.<sup>57</sup> By then, all ‘multi-resolution maps of all Europe’s seas and oceans, spanning all seven disciplinary themes’ should be available.<sup>58</sup>

A strong European component dominates the network and the idea behind it, and while LRAs from SMCs are also able to search for useful data that can help them develop their blue economy projects, the available data is limited to more general parameters such as currents, chemistry components, sea level, or seabed habitat (among others). The limitations in data are due to the fact that most of the SMCs are not part of the network and thus do not contribute to a wider data base. As a result, a look at the digital maps often shows a picture with points of

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<sup>52</sup> *Service Commitments and Licence*. Copernicus Marine environment monitoring service Website, European Commission. <http://marine.copernicus.eu/services-portfolio/service-commitments-and-licence/>. Accessed 1 June 2019.

<sup>53</sup> European Commission. *Marine Environment Monitoring Service*. Copernicus, European Commission, September 2016.

[https://www.copernicus.eu/sites/default/files/documents/Copernicus\\_MarineMonitoring\\_Feb2017.pdf](https://www.copernicus.eu/sites/default/files/documents/Copernicus_MarineMonitoring_Feb2017.pdf)

<sup>54</sup> European Commission. *Copernicus Helps Fish and Shellfish Farmers Monitoring Toxic Algal Bloom*. Copernicus Case Study, European Commission, November 2016.

[https://www.copernicus.eu/sites/default/files/UseCase\\_Fisheries\\_AlgalBloomMonitoring.pdf](https://www.copernicus.eu/sites/default/files/UseCase_Fisheries_AlgalBloomMonitoring.pdf)

<sup>55</sup> *What is EMODnet?* EMODnet Website, European Union 2017. <http://www.emodnet.eu/what-emodnet>. Accessed 1 June 2019.

<sup>56</sup> *Ibidem*.

<sup>57</sup> *Ibidem*.

<sup>58</sup> *Ibidem*.



information sprinkled along the coasts of EU Member States and (nearly) bald spots around Southern Mediterranean partner countries, especially around the coasts of Libya, Tunisia, and Algeria. For instance, LRAs in the SMCs interested in the water quality of their country's coast might face problems in finding the needed information. The availability of data is particularly poor in the case of information on human activities, a crucial indicator in the context of the blue economy. Data scarcity at the national level might play a role in the SMCs' lower levels of contribution to the EMODnet.

## *SeaDataNet*

The situation with another EU-funded database is slightly different. SeaDataNet is a network which describes itself as a 'distributed Marine Data Infrastructure for the management of large and diverse sets of data deriving from in situ of the seas and oceans.'<sup>59</sup> This Pan-European network processes a wealth of marine data, which originates from 100 national oceanographic and marine data centres in 35 countries, covering all European seas.<sup>60</sup> The availability of data for LRAs from SMCs is better than in the above-mentioned EMODnet network, due to the fact that research institutions from Tunisia, Morocco, Algeria, Lebanon, Turkey, and Israel are integrated in SeaDataNet, and they channel their data to the database. There are different levels of access, ranging from restriction-free to licenced data.<sup>61</sup> Users looking for information tailored to their needs can comb through the website's *Common Data Index* by selecting precise biological, chemical, or geological parameters.<sup>62</sup>

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<sup>59</sup> *About us*. SeaDataNet website, European Union. <https://www.seadatanet.org/About-us>. Accessed 1 June 2019.

<sup>60</sup> *Data Access Service*. SeaDataNet website, European Union. <https://www.seadatanet.org/Data-Access>. Accessed 1 June 2019.

<sup>61</sup> *SeaDataNet Common Data Index (cdi) v3*. SeaDataNet website, European Union. [http://seadatanet.maris2.nl/v\\_cdi\\_v3/search.asp](http://seadatanet.maris2.nl/v_cdi_v3/search.asp). Accessed 1 June 2019.

<sup>62</sup> *Ibidem*.



## 5. Funding possibilities identified

The following section provides a non-exhaustive list of funding possibilities available to LRAs from South Mediterranean partner countries (SMCs). It does so by building on the 2016 CoR study ‘Developing Blue economy through better methodology for assessment on local and regional level’,<sup>63</sup> extending it with other sources, including a 2018 report for Executive Agency for Small and Medium-sized Enterprises (EASME), ‘Study to support investment for the sustainable development of the blue economy’ (co-authored by CASE). Due to the comprehensive coverage of most funding mechanisms, the majority of countries are treated collectively; the conditions of funding specific to certain countries are described in separate sections.

### *Cross-cutting*

The first port of call for LRAs on the lookout for funding opportunities is the **European Neighbourhood Instrument (ENI)**, which comprises cross-border collaboration programmes between the EU and Southern Neighbourhood partners.<sup>64</sup> The ENI’s joint priorities for cooperation include (next to good governance and the rule of law) economic development for stabilisation. The lion’s share of the funding flows are from bilateral cooperation, which is complemented by other programmes, such as regional, cross-border, and neighbourhood-wide cooperation programmes.<sup>65</sup> One of these is the **Cross-Border Cooperation (CBC)**, which addresses explicitly local and regional administrations from partner countries (including SMCs). It focuses on common challenges such as climate change and the environment and promotes ‘economic and social development in border areas’.<sup>66</sup> In particular, a CBC programme called ‘Mediterranean Sea Basin’<sup>67</sup> can be used to fund projects in the areas of ‘Environmental protection, climate change adaptation and mitigation’ and ‘Business and SMEs development,’ both of which are relevant to the blue economy through their focus on the diversification of tourism and the conservation of coastal areas.<sup>68</sup> The projects receive funding of up to EUR 6

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<sup>63</sup> Charalambous, Alexander. *Developing Blue Economy through better Methodology for Assessment on Local and Regional Level*. Committee of the Regions, 2017.

[https://cor.europa.eu/en/engage/studies/Documents/order%206203\\_Blue%20Economy\\_form\\_WEB.pdf](https://cor.europa.eu/en/engage/studies/Documents/order%206203_Blue%20Economy_form_WEB.pdf)

<sup>64</sup> *Regional Development Co-operation Programmes Outside the EU*. European Commission’s website. [https://ec.europa.eu/regional\\_policy/en/policy/cooperation/european-territorial/outside-the-eu/](https://ec.europa.eu/regional_policy/en/policy/cooperation/european-territorial/outside-the-eu/). Accessed 1 June 2019.

<sup>65</sup> *European Neighbourhood Policy*. European Commission’s Website. [https://ec.europa.eu/neighbourhood-enlargement/neighbourhood/overview\\_en](https://ec.europa.eu/neighbourhood-enlargement/neighbourhood/overview_en). Accessed 1 June 2019.

<sup>66</sup> *Cross Border Cooperation*. European Commission Website. [https://ec.europa.eu/neighbourhood-enlargement/neighbourhood/cross-border-cooperation\\_en](https://ec.europa.eu/neighbourhood-enlargement/neighbourhood/cross-border-cooperation_en). Accessed 1 June 2019.

<sup>67</sup> *The ENI CBC Med Programme*. ENPI CBCMED Website. <http://www.enpicbmed.eu/enicbmed-2014-2020/the-eni-cbc-med-programme>. Accessed 1 June 2019.

<sup>68</sup> Ibidem

million for a period of one to four years and are to be managed by consortia composed of a maximum of seven to ten partners (with no more than three partners from a single country).<sup>69</sup>

Another funding opportunity provided by the EU is the **LIFE programme**, a funding instrument dedicated to environment and climate actions.<sup>70</sup> Split into two sub-programmes, ‘Environment’ and ‘Climate action,’ its funding is provided for projects related to nature conservation and resource efficiency, among others. With a view to the development of the blue economy, LRAs planning to invest in the protection of habitats, the circular economy, marine and coastal management, climate change mitigation strategies, or energy efficiency would be advised to monitor the LIFE programme.<sup>71</sup> However, LRAs from SMCs are only eligible for funding as a partner of a coordinating beneficiary from the EU.<sup>72</sup>

Furthermore, some calls under the **Horizon 2020** programme address topics related to the blue economy and open their funding to SMCs.<sup>73</sup> For example, the European Pre-Commercial Procurement Programme for Wave Energy Research & Development<sup>74</sup> aims at the development of wave energy convertors through Pre-Commercial Procurement. The call encourages public-public partnerships (PPPs), opening room for the involvement of LRAs. Participants may advance their ‘experience with national public procurement approaches’ to drive forward the commercialisation of Wave Energy Research and Development. Unfortunately, success rates in Horizon 2020 applications are known to be rather on the low end, and LRAs without the capacity to write high-quality grants are unlikely to succeed in the competition.

LRAs can also turn to the **European Investment Bank (EIB)**, which provides project-related loans to local authorities and PPPs as well as intermediated loans to local authorities.<sup>75</sup> One prerequisite for intermediated loans is the promotion of one of the following goals:

- 1) Increase in growth and employment potential – including support to small

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<sup>69</sup> Ibidem

<sup>70</sup> *LIFE programme*. European Commission Website. <https://ec.europa.eu/easme/en/life>. Accessed 1 June 2019.

<sup>71</sup> *LIFE - Environment Sub-programme*. European Commission Website.

<https://ec.europa.eu/easme/en/section/life/life-environment-sub-programme>. Accessed 1 June 2019.

<sup>72</sup> *LIFE - Who can apply?* European Commission Website.

<https://ec.europa.eu/easme/en/section/life/life-who-can-apply>. Accessed 1 June 2019.

<sup>73</sup> European Commission. *Horizon 2020: Work Programme 2018-2020*. Available at:

[http://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2018-2020/annexes/h2020-wp1820-annex-a-countries-rules\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2018-2020/annexes/h2020-wp1820-annex-a-countries-rules_en.pdf)

<sup>74</sup> LC-SC3-JA-3-2019 (14/11/2018 – 27/08/2019). See more: *Horizon 2020 Framework Programme (H2020)*. European Commission Website. <https://bit.ly/217ZcX1>. Accessed 20 June 2019.

<sup>75</sup> *Intermediated Loans*. European Investment Bank Website.

<https://www.eib.org/en/products/lending/intermediated/index.htm>. Accessed 1 June 2019.

and medium-sized enterprises (SMEs) and midcap companies;

2) Economic and social cohesion, by addressing economic and social imbalances, promoting knowledge-sensitive skills and innovation, and linking regional and national transport infrastructure;

3) Environmental sustainability – including support to competitive and secure energy supplies; and

4) Action for climate-resilient growth.

<sup>76</sup>

Among the EIB's priorities are 'energy efficiency, transport, water and sustainable urban infrastructure.'<sup>77</sup> To apply for an intermediated loan, Mediterranean partner countries<sup>78</sup> should approach the Facility for Euro-Mediterranean Investment and Partnership (**FEMIP) Trust Fund**. Under the fund, the EIB channels its activities related to SMCs. Projects related to environmental protection or energy, transport, and water sectors are eligible for financial or advisory support.<sup>79</sup> However, the EIB operates with relatively strict lending criteria, which might be an obstacle to LRAs.

A slightly different target is pursued by the **Special Climate Change Fund (SCCF)**, which provides money to developing countries<sup>80</sup> in order to implement measures and projects related to climate change.<sup>81</sup> Located under the umbrella of the Global Environment Facility, the SCCF's financing revolves around areas such as water resources management, infrastructure development, fragile ecosystems, and integrated coastal zone management.<sup>82</sup> The fund's top priority are water resources, land management, and capacity building for disaster prevention, although it also supports technology transfer and mitigation in selected sectors, including energy, transport, industry, and economic diversification.<sup>83</sup> An example of how LRAs can benefit from the scheme can be illustrated by the project 'Enhancing Regional Climate Change Adaptation in

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<sup>76</sup> Adopted directly from: Ibidem.

<sup>77</sup> *Infrastructure*. European Investment Bank Website.

<https://www.eib.org/en/projects/priorities/infrastructure/index.htm>. Accessed 1 June 2019.

<sup>78</sup> That is Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria, and Tunisia, see ibidem

<sup>79</sup> *FEMIP Trust Fund Annual Report 2017: Serving the Southern Neighbourhood*. European Investment Bank Website. <https://www.eib.org/en/infocentre/publications/all/femip-trust-fund-annual-report-2017.htm>. Accessed 1 June 2019.

<sup>80</sup> All relevant SMCs are eligible for funding, except for Palestine, see: *Funding*. Global Environment Facility Website. <https://www.thegef.org/about/funding>. Accessed 4 June 2019 and Country Profiles. Global Environment Facility Website. <https://www.thegef.org/country>. Accessed 4 June 2019.

<sup>81</sup> *Special Climate Change Fund (SCCF)*. World Bank Website. <http://fiftrustee.worldbank.org/Pages/sccf.aspx>. Accessed 1 June 2019.

<sup>82</sup> *Funding*. Global Environment Facility Website. <http://www.thegef.org/about/funding>. Accessed 1 June 2019.

<sup>83</sup> *Special Climate Change Fund – SCCF*. Global Environment Facility Website. <https://www.thegef.org/topics/special-climate-change-fund-sccf>. Accessed 1 June 2019.

the Mediterranean Marine and Coastal Areas,' funded by the SCCF in Albania, Algeria, Libya, Montenegro, Morocco, and Tunisia with the objective to 'assist countries to increase the resilience of the Mediterranean marine and coastal areas to the impacts of climate change with the view to influencing wider development processes in the region.'<sup>84</sup>

The EU also provides another source of funding, the **Instrument for Pre-Accession Assistance**, which is described in the section dedicated to Turkey below.

Another global source of funding is the **International Finance Corporation (IFC)**, the World Bank's sister organisation.<sup>85</sup> The IFC promotes PPPs in developing countries<sup>86</sup> by providing financial support and advice to national and municipal governments on the implementation of PPPs.<sup>87</sup> Sectors on the priority list of the IFC relevant to the blue economy include power, transport, and water.<sup>88</sup> For instance, under the section 'Transport,' LRAs can apply for debt and equity financing of modernisation and investments in port, shipping, and logistics.<sup>89</sup> Unfortunately, LRAs cannot apply for the funding directly, and state support is necessary, reducing the practicality of the mechanism for them.

One last funding possibility is **World Bank's** newly created **PROBLUE** fund.<sup>90</sup> The multi-donor trust fund is part of the World Bank's Blue Economy Programme and aims to ensure the 'protection and sustainable use of marine and coastal resources'<sup>91</sup> by focusing efforts on four topics: 1) 'the management of fisheries and aquaculture;' 2) 'the threats posed to ocean health by marine

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<sup>84</sup> *Enhancing Regional Climate Change Adaptation in the Mediterranean Marine and Coastal Areas*. Global Environment Facility Website.

<https://www.thegef.org/project/enhancing-regional-climate-change-adaptation-mediterranean-marine-and-coastal-areas>. Accessed 1 June 2019.

<sup>85</sup> *About IFC: Overview*. International Finance Cooperation Website.

[https://www.ifc.org/wps/wcm/connect/corp\\_ext\\_content/ifc\\_external\\_corporate\\_site/about+ifc\\_new](https://www.ifc.org/wps/wcm/connect/corp_ext_content/ifc_external_corporate_site/about+ifc_new). Accessed 1 June 2019.

<sup>86</sup> Finance is directed to less developed countries and countries which are members of the World Bank Group. That includes all relevant SMCs with the exception of Palestine, see: IFC. *About IFC*. IFC ANNUAL REPORT 2016: 16. [https://www.ifc.org/wps/wcm/connect/0d31877e-ca84-46b0-9e05-60ff442653c1/IFC\\_AR16\\_Section\\_1\\_AboutIFC.pdf?MOD=AJPERES](https://www.ifc.org/wps/wcm/connect/0d31877e-ca84-46b0-9e05-60ff442653c1/IFC_AR16_Section_1_AboutIFC.pdf?MOD=AJPERES) and Member Countries. The World Bank Website.

<http://www.worldbank.org/en/about/leadership/members#3>. Accessed 1 June 2019.

<sup>87</sup> *IFC's Priorities in PPPs*. IFC Website.

[https://www.ifc.org/wps/wcm/connect/industry\\_ext\\_content/ifc\\_external\\_corporate\\_site/ppp/priorities](https://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/ppp/priorities). Accessed 1 June 2019.

<sup>88</sup> *Ibidem*.

<sup>89</sup> *Transportation*. IFC Website.

[https://www.ifc.org/wps/wcm/connect/industry\\_ext\\_content/ifc\\_external\\_corporate\\_site/infrastructure/priorities/transportation/transportation](https://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/infrastructure/priorities/transportation/transportation). Accessed 1 June 2019.

<sup>90</sup> *The World Bank's Blue Economy Program and PROBLUE: Supporting Integrated and Sustainable Economic Development in Healthy Oceans*. World Bank Website, Brief, 26 November 2018.

<http://www.worldbank.org/en/topic/environment/brief/the-world-banks-blue-economy-program-and-problue-frequently-asked-questions>. Accessed 1 June 2019.

<sup>91</sup> *Ibidem*.

pollution, including litter and plastics;’ 3) ‘the sustainable development of key oceanic sectors such as tourism, maritime transport and off-shore renewable energy;’ and 4) ‘building the capacity of governments to manage their marine and coastal resources in an integrated fashion to deliver more and long-lasting benefits to countries and communities.’<sup>92</sup> Direct contact with the trust is necessary to establish whether and to what extent LRAs are eligible for the funding.

Apart from the above-mentioned funding sources, available to all the countries in the region<sup>93</sup>, in Turkey the initiatives of the LRAs in the area of the blue economy can be funded through the **EU Instrument for Pre-Accession Assistance (IPA)**. IPA funds are implemented by three programmes, of which the *Transport Operational Programme (TOP)*, which channels funds into infrastructural projects, is of particular relevance to the blue economy, as the improvement of maritime infrastructure is explicitly named under priority 2 of the programme.<sup>94</sup> According to the IPA, the funding aims to ‘modernize the port infrastructure in Turkey in order to improve the capacity of some strategic ports’ as well as ‘to promote international and transit movement of freight in Turkey by providing effective connections with the EU maritime routes through the modernization and development’.<sup>95</sup>

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<sup>92</sup> Ibidem.

<sup>93</sup> In Algeria, the funding situation of LRAs is more problematic than in the other South Mediterranean countries. This is due to the fact that Algerian LRAs are currently ‘prohibited by law from independently seeking out or receiving external funding of any kind.’<sup>93</sup> This confines the scope of action to national funding opportunities, creating an obstacle to the development of the blue economy.

<sup>94</sup> *IPA Regional Development Programmes in Turkey*. European Commission Website. [https://ec.europa.eu/regional\\_policy/en/funding/ipa/turkey/](https://ec.europa.eu/regional_policy/en/funding/ipa/turkey/). Accessed 1 June 2019.

<sup>95</sup> *IPA Transport Operational Programme in Turkey*. European Commission Website. [https://ec.europa.eu/regional\\_policy/en/funding/ipa/turkey/transport/](https://ec.europa.eu/regional_policy/en/funding/ipa/turkey/transport/). Accessed 1 June 2019.





## 6. Annotated and commented bibliography

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This presentation, part of the Blue Economy Project of the Food and Agriculture Organization of the United Nations (FAO) and situated within much of the work that the FAO does in the blue economy area, sets forth a number of goals to be fulfilled as part of the General Fisheries Commission for the Mediterranean (GFCM) mid-term strategy (2017-2020) to improve the sustainability of Mediterranean and Black Sea fisheries. Specifically, it highlights the importance of reversing a decline in fish stocks. It proposes to: 1) limit illegal, unreported, and unregulated fishing (IUU); 2) help develop sustainable SSF; 3) engage in activities leading to cooperation and capacity creation; and 4) mitigate the likelihood of undesirable outcomes from interactions between the environment and fisheries. The presentation emphasises the need to strengthen the role of scientific advice by introducing improvements in knowledge and broadening the expertise base on the Mediterranean region and Black Sea fisheries. Additionally, the authors recommend incorporating socio-economic data and analysis into management frameworks and enhanced GFCM regulatory frameworks overseeing fisheries.

**Themes:** food, health, and ecosystem services

- FAO and General Fisheries Commission for the Mediterranean. *The State of Mediterranean and Black Sea Fisheries 2018*. Rome, 2018. Available at: <http://www.fao.org/3/CA2702EN/ca2702en.pdf>

The document emphasises the need for capacity building at the regional and sub-regional levels of national administrations, especially regarding the implementation of guidelines for small-scale fisheries (SSF). In particular, the report emphasises the enhancement of regional platforms for participatory processes, access to financing, education opportunities (for employees, employers, and consumers), and the development of synergies between SSF and related sectors. The report highlights the requirements for innovation within existing SSF value chains, where local fishing cooperatives would assume important tasks to improve market access and the bargaining power of SSF. The document highlights the implementation process of the Regional Plan of Action

for Small-Scale Fisheries in the Mediterranean and the Black Sea, focusing on goals and actions for the years 2018-2028. Specifically noted are improvements which need to be implemented at a local level, including in scientific research, value chain creation, database building, management, capacity building, decent work promotion, and promoting cooperation between stakeholders (inter- and non-governmental units).

**Themes:** food, health, and ecosystem services

- Fosse, Jérémie, et al. *Blue Economy in the Mediterranean*. Barcelona: Union for the Mediterranean, 2017. Available at: [https://ufmsecretariat.org/wp-content/uploads/2017/12/UfMS\\_Blue-Economy\\_Report.pdf](https://ufmsecretariat.org/wp-content/uploads/2017/12/UfMS_Blue-Economy_Report.pdf)

The purpose of this paper is to provide a general overview of the state of the blue economy in the Mediterranean in the context of implementing the United Nations (UN) Sustainable Development Goals (SDGs), highlighting the potential challenges and opportunities for sustainable development. Given the importance of the blue economy for Mediterranean economies, the paper also includes an analysis on the potential of tourism, fisheries, and aquaculture in the region.

In particular, Marine Protected Areas (MPAs) are highlighted as a key cross-sectorial approach to sustainable management of the blue economy in the region, with special benefits in economic sectors such as coastal tourism. The study also points to the need to replicate this model, which is present mainly in the Northern Mediterranean and in the Southern Mediterranean Basin.<sup>9697</sup> There are multiple references to the importance of promoting local economic development through support to local businesses, local communities, and the creation of local jobs. Local and regional authorities (LRAs) are called upon, based on Mediterranean Strategy for Sustainable Development Objective 4.4, to play a relevant role in the development of renewable energy in general, and off-shore production specifically, through local policies such as regulation, incentives, and the phasing out of fossil fuel subsidies.

The study also offers an overview of deep-sea mining activities in the Mediterranean and provides an assessment of the pertinence of offshore mining in blue economy activity. Last, the study discusses the prospective challenges of the fisheries and aquaculture industries, focusing on marine-friendly

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<sup>96</sup> Gomei M. and Di Carlo G. *Making Marine Protected Areas Work—Lessons Learned in the Mediterranean*. WWF Mediterranean, 2012.

<sup>97</sup> Di Carlo G., Lopez A., Staub F. *Capacity building strategy to enhance the management of MPAs in the Mediterranean Sea*. WWF MedPO / MedPAN / UNEP/MAP/RAC/SPA, 2012.

technologies and management practices, which combine productivity and employment effects, preserve the natural biodiversity of the Mediterranean Sea, and boost socio-economic progress for coastal communities. However, while raising salient points for local communities, the report presents little quantitative data to substantiate the claims set forth, especially at the sub-regional level.

**Themes:** coastal tourism, governance and legal framework, tourism, energy, food, health, and ecosystem services, maritime transport and port activities

- Fosse, Jérémie, et al. *Indicators for the Blue Economy in the Mediterranean*. Plan Bleu, Technical Report, 2017. Available at: [https://planbleu.org/sites/default/files/upload/files/Indicators\\_for\\_the\\_BE\\_in\\_the\\_Mediterranean.pdf](https://planbleu.org/sites/default/files/upload/files/Indicators_for_the_BE_in_the_Mediterranean.pdf)

The study highlights the scarcity of data and inadequacy of existing information, making an assessment of the parameters relevant to fisheries and aquaculture industries in the Mediterranean region (i.e. general data on fish stock and specific information regarding the economic output of SSF) difficult. A case study looking at problems related to maritime transport addresses the issue of data scarcity in relation to the management of local ports – the data for which are almost non-existent, apart from data on container port traffic which is specifically provided by Eurostat and the World Bank. There is also no available database regarding passenger traffic – a critical issue for this particular region given its tourism potential.

As for aquaculture, the information pertaining to relevant methods and environmental impacts is scarce, preventing a robust assessment of the state of the industry and its environmental footprint. The findings indicated that, based on the data on the status of fish stocks that are available, inadequate management and lack of sufficient monitoring may have led to an over-exploitation of fish stocks (the report further raised the probability of pharmaceutical and pollution releases which were harmful for the local biodiversity). The paper calls for a prioritisation of regional recuperation, ensuring the sustainable use of biodiversity and food security via the implementation of ecosystem-based standards and management policies drafted and implemented by LRAs.

**Themes:** energy at sea and raw materials, food, health and ecosystem services, coastal tourism, maritime transport activities

- Fosse, Jérémie and Le Tellier, Julien. *Sustainable Tourism in the Mediterranean: State of Play and Strategic Directions*. Valbonne: Plan Bleu,

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[https://planbleu.org/sites/default/files/publications/cahier17\\_tourisme\\_en\\_web.pdf](https://planbleu.org/sites/default/files/publications/cahier17_tourisme_en_web.pdf)

This report builds on the recent regional and international literature on tourism and sustainability to shape guidelines and recommendations for sustainable tourism in the Mediterranean. In particular, this study analyses the critical environmental, social, economic, cultural, and governance issues that need to be addressed in order to ensure the development of sustainable and inclusive Mediterranean tourism. It also presents a set of Strategic Directions and Actions (SDAs) to structure this future strategic framework for sustainable tourism in the Mediterranean. While the SDAs are rather generic, they form a valuable list of shared challenges that are applicable on a regional scale, mainly focused on the need to incentivise cooperation in the field based on common goals (which are also correlated to SDGs). LRAs are identified as key stakeholders in the study with the role of ‘fostering local strategies and planning; Implementation of policy and regulations; Local infrastructure development and management; Stakeholder engagement, coordination and support’.

**Themes:** coastal tourism, social progress and inclusiveness, governance and legal framework, Sustainable Development Goals, tourism sustainability, regional challenges

- International Union for Conservation of Nature. *Mediterranean Programme 2017-2020*. Available at: [https://www.iucn.org/sites/dev/files/content/documents/iucn\\_mediterranean\\_programme\\_2017-2020.pdf](https://www.iucn.org/sites/dev/files/content/documents/iucn_mediterranean_programme_2017-2020.pdf)

The study, undertaken in cooperation with local partners, provides an overview of both identified needs as well as solutions related to nature conservation in the Mediterranean basin. According to the authors, given various local peculiarities, partnerships (including those with local authorities aware of local conditions) are seen as one of the most important ‘modalities’ safeguarding the implementation of successful environmental programmes and local strategies on nature conservation. Additionally, participatory models allow for civil society empowerment and further enhance monitoring actions at various levels (national, regional, local, civil society), making natural resource conservation governance more effective and dissemination broader. The model of co-management of important environmental spots, including maritime areas, with the participation of relevant local actors, additionally saves human and financial resources, allowing cooperating institutions to build strong consortia specialised in specific conservation actions.

**Themes:** food security and economic and social development

- International Union for Conservation of Nature. *North Africa Programme 2017-2020*. Available at:  
[https://www.iucn.org/sites/dev/files/content/documents/north\\_africa\\_programme\\_2017-2010\\_en.pdf](https://www.iucn.org/sites/dev/files/content/documents/north_africa_programme_2017-2010_en.pdf)

The study focuses on issues related to the post-2015 agenda of the UN and the implementation of specific SDGs. The authors emphasise the interrelations among environmental issues, arguing that a holistic approach is necessary to overcome difficult issues. In particular, sharing of lessons learned and technical expertise oftentimes proves beneficial regardless of the local peculiarities. They also demonstrate direct and indirect benefits for the parties involved in such an extensive type of cooperation. A case study describing the intra-country (Algeria, Morocco, and Tunisia) process of building a threatened species conservation mechanism, where local conservation managers were involved, has been used to showcase these benefits. Apart from safeguarding the environment, opening up new networking opportunities and providing guidance for local staff, the capacity building undertaken helped to create (and implement) a common methodology for sub-regional conservation managers. Such an approach has been used to unify the legislation in the countries of the region, leading to further integration and regional cooperation.

**Themes:** energy at sea and raw materials, environmental monitoring and protection of maritime areas

- Mediterranean Association of National Agencies for Energy Management/Observatoire Méditerranéen de l’Energie. *Les Energies Renouvelables en Méditerranée: Tendances, Perspectives et Bonnes Pratiques*. 2018. Available at:  
[http://www.ome.org/wp-content/uploads/2018/12/MEDENER\\_OME-Brochure\\_ENR\\_PDF2018.pdf](http://www.ome.org/wp-content/uploads/2018/12/MEDENER_OME-Brochure_ENR_PDF2018.pdf)

Without purporting to be exhaustive, this study provides relevant elements to help understand the framework of renewable energy in the Mediterranean. It shows the progressive development of the field in the Mediterranean region and presents the main challenges to renewable energy, the public policies that have been put in place, a list of relevant projects, as well as the best practices identified in the region. It also offers data analysis on a regional and national level.

The document provides a country by country description of the institutional and regulatory framework as well as the renewable energy projections for 2020.

However, the participation and contribution of LRAs to the development of the policies is treated as an accessory, as the study mentions them no more than two to three times and does not include them in any substantive discussions on solutions. The conclusions focus on the need to reinforce the capacities of Southern and Eastern Mediterranean countries in the field. Little to no information is given on energy and raw materials related to the blue economy due to the lack of development of the field in the analysed countries.

**Themes:** energy, general and environmental development, renewable energy, projections, governance and legal framework

- Nadcrinicinii, Artur, *Greening the Blue Economy: A Collection of Case Studies Showcasing the Application of Sustainable Consumption and Production Principles and Practices to Blue Economy Sectors in the Mediterranean*. Union for the Mediterranean, 2017. Available at: <https://ufmsecretariat.org/wp-content/uploads/2017/12/Greening-the-Blue-Economy-UfM-Report.pdf>

The report presents a number of qualitative studies of the blue economy sectors, *inter alia* related to food and health. Its main focus is on enterprises which contribute to local socio-economic development but have also adopted sustainable production and business management models (contributing to the decoupling of economic growth and revenues from excessive resource use). While the scope and size of the entrepreneurial activities analysed in the report vary from start-ups to large-scale sustainable consumption and production strategies (e.g. large-scale fisheries in Morocco, artisan fishing businesses in Tunisia, or sustainable aquaculture in Egypt), all the cases focus on accelerating socio-economic growth and reducing its environmental impact. The case studies deliver a broad collection of good practices which can be implemented by the local authorities to ameliorate the welfare of local communities and promote a low-carbon economy; however, the report fails to discuss the operationalisation issues of such actions and how to assign tasks to LRAs. In general, the report does not perceive LRAs to be promising agents who might effectively argue in favour of environmental solutions.

**Themes:** sustainable consumption, sustainable production, fisheries, aquaculture, green entrepreneurship

- Observatoire Méditerranéen de l'Énergie. *Mediterranean Energy Perspectives 2018*. 2018. Available at: <http://www.ome.org/event/mediterranean-energy-perspectives-2018/>

The study provides a comprehensive analysis of the energy sector in the Mediterranean region and gives detailed information on the current state of fuel

sources, from fossil fuels to renewable energy sources, in all end-use sectors of economy. It presents data ranging from the early days of the region's energy industry to the present as well as an outlook to 2040 based on projections done by the Observatoire Méditerranéen de l'Energie (OME) (divided by reference and proactive scenarios). It includes a rich compilation of graphics, tables, maps, and other sources coming from national institutions and offers a clear explanation of the legal framework and sector-based country policies that enhance or block the transition to renewable energy resources. The study also analyses the different speeds with which the Southern and Eastern Mediterranean countries are investing in the development of their regulatory frameworks and the introduction of stronger policy support measures.

With reference to LRAs, the study praises the introduction of specific initiatives fostered by regional governments and municipalities on renewable energy and solar ordinances, but it is mainly focused on the state of the energy sector at the national level.

**Themes:** energy, renewable energy, governance and legal framework, energy demand and generation, hydrocarbons, energy and climate change

- Piante, Catherine and Ody, Denis, *Blue Growth in the Mediterranean Sea: The Challenge of Good Environmental Status*, WWF-France, MedTrends Project, 2015. Available at: [http://d2ouvy59p0dg6k.cloudfront.net/downloads/medtrends\\_regional\\_report.pdf](http://d2ouvy59p0dg6k.cloudfront.net/downloads/medtrends_regional_report.pdf)

This study summarises the results of the MedTrends Project aimed at mapping possible scenarios related to maritime economic growth in the Mediterranean countries to 2030. It focuses predominately on the overall development of the region and what environmental impacts this may cause. The authors present an extensive and interesting list of 'descriptors' influencing possible future trends and conclude that, apart from fisheries, all sectors currently considered relevant for the blue economy will increase in the next 15 years. This might lead to new conflicts between the sectors at stake, such as offshore exploration and maritime transport. Multiple pragmatic recommendations are presented to limit these potential disputes.

Specifically, maritime transport is projected to grow in the Mediterranean region significantly, both when it comes to traffic intensity and variety of maritime routes. This is projected to significantly affect the local environment, both in generating underwater noise and threatening specific endangered species; at the same time, however, it is evident that maritime transport, including the cruise sector, brings various benefits for local development. In this

respect, the implementation of a well-designed system, monitoring various pollution-related parameters at the local level, is pointed out as a key to success.

**Themes:** coastal tourism, energy at the sea and raw materials, maritime transport activities, environmental monitoring and protection of maritime areas

- Plan Bleu, *Economic and Social Analysis of the Uses of the Coastal and Marine Waters in the Mediterranean, Characterization and Impacts of the Fisheries, Aquaculture, Tourism and Recreational Activities, Maritime Transport and Offshore Extraction of Oil and Gas Sectors*, Valbonne: Plan Bleu, Technical Report, 2015.<sup>98</sup>

The report contributes to the Mediterranean Initial Integrated Assessment (IIA) in surveying the progress in the implementation of the Mediterranean Action Plan Ecosystem Approach Initiative. It provides an in-depth socio-economic assessment of key activities, such as fisheries and aquaculture, among others, which are subject to analysis at the Mediterranean basin level as well as at sub-regional levels. It provides quantitative socio-economic indices for each of the areas under scrutiny, indicating their impact on the development of national economies. The study also examines dynamics between environmental issues (e.g. marine and coastal ecosystems) and socio-economic systems at the national level, providing insights regarding the design of effective management policies at central and regional levels.

With regard to maritime transport, the paper notes that the scale of such transport is difficult to measure, largely because there are more than 600 ports in the Mediterranean basin. Despite these data issues, the authors emphasise that currently ‘70% of marine pollution is caused by maritime transport through emissions and leaks of hazardous substances (e.g. oil products, chemical products, anti-fouling components...)’.<sup>99</sup> Their data points out that the Mediterranean Sea is the most oil-polluted sea basin. This significantly degrades the environmental condition of coastal resorts in the Southern parts of the region. Additionally, they suggest that marine and coastal litter has been increasing, despite passing the International Convention for the Prevention of Pollution from Ships (MARPOL) legislation which bans throwing plastic into the sea. Although regulations oblige the relevant authorities and local ports to provide appropriate waste management facilities to all ships, there is still much to be done to fulfil this goal (this is an area where LRAs may contribute).

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<sup>98</sup> Document available at (please copy the link and paste to the Internet browser):

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.660.395&rep=rep1&type=pdf>

<sup>99</sup> Plan Bleu. *Economic and Social Analysis of the Uses of the Coastal and Marine Waters in the Mediterranean, Characterization and Impacts of the Fisheries, Aquaculture, Tourism and Recreational Activities, Maritime Transport and Offshore Extraction of Oil and Gas Sectors*. Valbonne: Plan Bleu, Technical Report, 2015, p. 11.



Estimations presented in the report may be biased by inadequate (for regional analyses) granularity of the data utilised – both as regards the geographical (e.g. existence of maritime façades) and sectoral (aquaculture and fisheries are rarely disaggregated) angle.

**Themes:** coastal tourism, energy at sea and raw materials, maritime transport activities, environmental monitoring and protection of maritime areas

- Soukissian, Takvor H., et al., *Marine Renewable Energy in the Mediterranean Sea: Status and Perspectives*, Anavyssos: Institute of Oceanography, Hellenic Center for Marine Research, 2017. Available at: <http://antalyadeniziklim.org/wp-content/uploads/energies-10-01512.pdf>

The paper surveys the marine renewable energy (MRE) sector in the Mediterranean Sea, including the different types of MRE (offshore wind, wave, tidal, thermal, and salinity gradient energy conversion), and discusses their current status, potential problems, challenges, and development perspectives. The authors outline a potential approach towards the economic viability and sustainability of marine renewable energy projects.

The study thoroughly considers three key frameworks contributing to the success or failure of the development of marine renewable energy projects: geotechnical and engineering, socio-economic, and environmental. It includes a roadmap for the sustainable development of MRE in the Mediterranean Sea, built around a four-helix model (data efficiency, MRE technology, social approach, and state-level actions) with recommendations and guidelines involving a triangle of technical, environmental, and socio-economic aspects. The document mentions specific cases involving LRAs' role in the decision-making process, but the feedback is deemed negative. The analysis suggests that LRAs and other relevant stakeholder groups involved in MRE projects participate in the appropriate consultation processes.

**Themes:** energy, marine renewable energy, MRE, current energy status, governance and legal framework, key issues of geotechnical framework, key issues of socio-economic framework, key issues of the environmental framework, Marine Protected Areas.

- United Nations Environment Programme/Mediterranean Action Plan, *Mediterranean Strategy for Sustainable Development 2016-2025*. Valbonne: Plan Bleu, Regional Activity Centre, 2016. Available at: [https://planbleu.org/sites/default/files/publications/mssd\\_2016-2025\\_final.pdf](https://planbleu.org/sites/default/files/publications/mssd_2016-2025_final.pdf)

The strategy focuses on addressing cross-cutting issues that lie in the interface

between environment and development. It addresses issues across sectoral, institutional, and legal boundaries, emphasising the interlinkages between environmental issues and economic and social challenges, rather than specific economic sectors. The strategy tries to promote synergies between the work of key national and regional stakeholders, by providing a commonly agreed framework. Given the institutional framework under which the Mediterranean Strategy for Sustainable Development (MSSD) was developed, it is also the most comprehensive document to understand the governance system in support of sustainable development in the Mediterranean and the role that LRAs can play in achieving its goals. The strategy revolves around six objectives and a set of strategic directions for which both the role of national and local governments is fundamental. Strategic directions establish the priority actions, the owners that are called upon to carry out the actions, as well as the time frame and specific indicators to measure progress.

Furthermore, the strategy summarises the outcomes of broad consultations undertaken to secure the sustainable development of the Mediterranean region. The authors suggest that this cannot be safeguarded without green investments in place, particularly in expensive actions such as environmental monitoring or tracking, such as integrated coastal zone management or sustainable consumption and production. Their local insights, coupled with vast regional experience, resulted in creation of a specific process and stakeholders engagement techniques fostering the MSSD. For example, ‘Strategic direction 7.4: Ensure the regular monitoring of the Mediterranean Strategy for Sustainable Development 2016-2025’,<sup>100</sup> mentions only one national action related to environment monitoring, while at the regional level, three broad solutions have been suggested. Surprisingly, all these require very technical knowledge, which might be difficult to find among LRA representatives dealing with protection of maritime areas.

**Themes:** coastal tourism, food health and ecosystem services, environmental monitoring and protection of maritime areas

- United Nations Environment Programme and World Tourism Organization, *Tourism in the Green Economy: Background Report*. Madrid: UNWTO, 2012. Available at: <https://www.e-unwto.org/doi/book/10.18111/9789284414529>

This report aims to encourage policy makers to invest in green tourism by providing guidance on how to implement such undertakings. The document introduces the notion of tourism in the green economy and the characteristics of

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<sup>100</sup> UNEP/MAP. *Mediterranean Strategy for Sustainable Development 2016-2025*. Valbonne: Plan Bleu, Regional Activity Centre, 2016. p. 81.

this sector, mainly detailing its challenges and opportunities based on regional case studies. The gains of greening the tourism sector are also discussed; benefits in employment, local economic development, poverty reduction, environmental benefits, and possibly the protection of cultural heritage (i.e. physical artefacts or intangible attributes). This paper presents the steps and conditions required to enable greening the sector, offering several recommendations in order to create a suitable environment to boost investments in the development of sustainable tourism. The study envisages a multi-stakeholder participatory planning process in the green transformation programmes in which LRAs (together with national stakeholders, non-governmental organisations [NGOs], enterprises, experts, and other organisations) actively take part. It also identifies LRAs as possible donors and investors to help finance green tourism projects. The conclusion of report is dedicated to help governments to target tourism through a convincing economic case for greening tourism.

**Themes:** coastal tourism, green tourism, governance and legal framework, tourism sustainability, energy, water consumption and waste management



## 7. Abbreviations

AMARe	Actions for Marine Protected Areas
AMU	Arab Maghreb Union
ARLEM	Euro-Mediterranean Regional and Local Assembly
CBC	Cross border cooperation
CBD	Convention on Biological Diversity
CMEMS	Copernicus Marine Environment Monitoring Service
CoR	Committee of the Regions
CPC	Contracting parties and cooperating non-contracting parties
EASMEs	Executive Agency for Small and Medium-sized Enterprises
EEZ	Exclusive economic zones
EIB	European Investment Bank
EMODnet	European Marine Observation and Data Network
ENI	European Neighbourhood Instrument
FAO	Food and Agriculture Organization of the United Nations
FEMIP	Facility for Euro-Mediterranean Investment and Partnership
GFCM	General Fisheries Commission for the Mediterranean
IFC	International Finance Corporation
IIA	Initial Integrated Assessment
IPA	Instrument for Pre-Accession Assistance
IPCC	Intergovernmental Panel on Climate Change
IUU	Illegal, unreported, and unregulated
LRA	Local and regional authority
MARPOL	International Convention for the Prevention of Pollution from Ships
MENA	Middle East and North Africa
MoS	Motorway of the Sea
MPA	Marine Protected Areas
MRE	Marine renewable energy
MSSD	Mediterranean Strategy for Sustainable Development
NGO	Non-governmental organization
OME	Observatoire Méditerranéen de l’Energie
PPP	Public-private partnerships
PRIMA	Partnership for Research and Innovation in the Mediterranean Area
SCCF	Special Climate Change Fund
SDA	Strategic Directions and Actions

SDG	Sustainable Development Goals
SMEs	Small and medium-sized enterprises
SMC	South Mediterranean partner countries
SOM	Senior Officials Meetings
SSF	Small-scale fisheries
TOP	Transport Operational Programme
UfM	Union for the Mediterranean
UNEP	United Nations Environment Programme

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