

Blue in the Green

How the European Green Deal will affect EU seas and the maritime sector

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ABSTRACT

The European Green Deal was presented in 2019 as the European Commission's roadmap to make Europe the first climate neutral continent by 2050, while ensuring sustainable and inclusive growth. It has been accompanied by the adoption, in the period between 2019 and 2021, of about 20 strategic documents, which address all the environmental policy areas and all the economic sectors. This article illustrates how the EGD strategic framework will affect the European marine environment and the blue economy. In particular, it shows that the blue economy needs to be deeply transformed to deliver on the EU 'green ambitions' and that this sustainable transition will result in healthier oceans, which in turn, within a virtuous circle, will bring further benefits to the blue economy. This paper is complementary to the [video](#) presented by the author at Blue Planet Economy (BPE) European Maritime Forum 2021.

KEYWORDS: European Green Deal, maritime environment, blue economy.

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1. INTRODUCTION

The European Green Deal (EGD) was presented in 2019 as the European Commission's roadmap to make Europe the first climate neutral continent by 2050, while ensuring sustainable and inclusive growth (European Commission [EC], 2019). The policy framework shaped by the EGD has been completed by about 20 strategic documents, adopted in the period between 2019 and 2021, addressing all the environmental policy areas and all the economic sectors (EC, 2019). Among these documents, the Communication on a new approach for a sustainable blue economy (EC, 2021a) specifically aims at integrating ocean policy into Europe's new economic policy, even if many other EGD strategies set objectives and implementation measures, which will directly affect the marine environment and the blue economy.

Oceans are essential for our own existence and our economic prosperity: they hold 80% of all life forms, play a major role in climate regulation, contribute to food security and are the most important asset of the blue economy. Therefore, the European Commission recognizes that there is no Green Deal without oceans and no green recovery, after the COVID-19 pandemic, without a sustainable blue economy. The present article illustrates how the EGD strategic framework (EGDSF) will affect the European marine environment and how the blue economy needs to be transformed to deliver on the EU 'green ambitions' related to decarbonisation, climate adaptation, pollution prevention & reduction, conservation of natural capital, circular economy and responsible food production.

2. THE EUROPEAN GREEN DEAL: A SUSTAINABLE BLUE ECONOMY IN THE EU

According to the EGDSF, in the first place the blue economy is expected to support the achievement of the climate neutrality goal (including, as an intermediate step, 55% GHG emission reductions target, compared to 1990 levels, by 2030; EU, 2021) and the transition towards zero pollution. To this end, the renewables shall be used to produce at least 40% of energy in the Union by 2030 (EC, 2021b). Within this context, offshore renewable energy shall become a core component of Europe's energy system, by generating a quarter of the EU's electricity in 2050. The related capacity will have to be multiplied five-fold and 30-fold, respectively, by 2030 and 2050. At the same time, since ports are crucial to the connectivity and the economy of regions/countries, they should work as energy hubs (EC, 2021a). This massive change of scale requires careful planning and good cooperation between all the stakeholders involved, to make it compatible with the protection of biodiversity and all the other uses of the maritime space (a Blue Forum will be created to coordinate dialogue between sea users). It also requires an adequate and stable legislative framework, as well as investments and research efforts. Investment needs by 2050 amount to almost 800 billion Euros (two thirds to fund grid infrastructure and a third for offshore generation; EC, 2020a).

The increasing share of renewable energy will be counterbalanced by the projected reduction in fossil fuels' consumption. By 2030, oil and gas consumption should decrease by more than 30% and 25%, respectively (EC, 2020b). The European Investment Bank will stop funding unabated oil and gas projects by the end of 2021, cutting about 2 billion Euros of yearly investments (EIB website).

Another relevant contribution to climate mitigation and the "zero pollution" ambition is expected from the transport sector, which should reduce its overall GHG emissions by 90% compared to 1990 levels by 2050 (EC, 2020c). In maritime transport, emissions today are higher than in 1990 and they are projected to grow further in a business-as-usual scenario. Therefore, the Commission has already proposed to extend the EU Emission Trading System to the maritime transport sector from 2023 (EC, 2021c), to fully internalise the related environmental costs. The Energy Taxation Directive is also currently under revision, to abolish tax exemptions for the use of fossil fuels, while encouraging that of sustainable fuels (EC, 2021d). The demand of renewable

and low-carbon fuels will be stimulated by a dedicated initiative (the so called “FuelEU Maritime”; EC, 2021e). Zero-emission ocean-going vessels will have to become market ready by 2030. The Sustainable Mobility Strategy also calls for a substantial part of the 75% of inland freight carried today by road to shift towards more sustainable transport modes, including short-sea shipping, which, along with inland waterways, should increase by 50% by 2050. Short-sea shipping represents a lead market for hydrogen, which is essential to achieving the EGD goals, since it does not emit CO₂ and almost no air pollution when used. A specific strategy has been adopted to produce up to 1 million and 10 million tonnes of renewable hydrogen, respectively by 2024 and 2030 (EC, 2020d). Finally, in order to promote zero-emission ports, the Ship-Source Pollution Directive (EU, 2005) will be revised to bring its provisions on illegal discharges at sea into line with the EU rules requiring ships to deliver their waste in ports.

The protection and restoration of biodiversity represent another fundamental goal of the EGDSF. A set of actions has been defined by the European Commission to improve the protection of marine biodiversity, with regard to both species and habitats (EC, 2020e). In the first place, the EU should protect at least 30% of the EU’s seas by 2030 (+19% compared to today) and, in all protected areas, Member States will have to establish clear conservation objectives and measures. If the EU is not on track to meet the above objective, the Commission may later decide to introduce adequate legislation. The upcoming new action plan to conserve fisheries resources and protect marine ecosystems will promote the transition towards more selective and less damaging fishing techniques, which will be financially supported by the European Maritime and Fisheries Fund (EMFF). The Biodiversity Strategy (EC, 2020e) also provides for the reduction of the by-catch of species threatened with extinction, the adoption of a zero-tolerance approach for illegal harvesting of marine resources and the reduction of the adverse impacts of fishing, extraction and other human activities on sensitive species and seabed habitats.

Over 200 million EU citizens live in coastal regions or on one of Europe’s many islands. If current trends are not reversed, they will be increasingly exposed to loss and damages due to climate change and extreme weather events. The cost of inaction on the protection of coastlines from the risk of erosion and flooding would amount to 340-360 billion Euros per year in terms of lost ecosystem services along EU coasts (EC, 2020a). The EU Strategy on adaptation to climate change (EC, 2021f) highlights the importance of developing nature-based solutions on a large scale and green infrastructures in coastal and marine areas, as they will enhance coastal defence and reduce the risk of algal blooms, while providing further benefits such as carbon sequestration, tourism opportunities, and biodiversity conservation and restoration. These adaptation activities will become a new sector of the blue economy.

The blue economy is also key in the transition towards a sustainable food system (shaped by the Farm to Fork Strategy; EC, 2020f), which, in turn, will contribute to climate mitigation, the protection of biodiversity and the reduction of pollution. Seafood farming and algae may be a relevant source of alternative proteins for a sustainable food system (as well as for animal feed), since they generate a low carbon footprint compared to animal proteins. A specific initiative on algae will be launched in 2022. The EMFF will offer targeted support for the algae and seafood industry and marketing standards will be revised to encourage the uptake of sustainable fisheries and aquaculture products. The Commission will act to reduce the overall EU sales of antimicrobials for farmed animals and in aquaculture by 50%, by 2030 (EC, 2020f and 2021g). Organic aquaculture should significantly increase. The new EU Strategic Guidelines on Aquaculture (EC, 2021h) favour this process and the improvement of the environmental performance of the sector.

Marine litter is a global concern; it is estimated that more than 150 million tonnes of plastics have been accumulated in the world’s oceans (Jambeck et al., 2015), with detrimental environmental effects and serious economic consequences. The Commission aims, *inter alia*, at halving plastic litter at sea and reducing by 30% microplastics released into the environment by 2030 (EC, 2020g and 2021g). At the international level, the EU will lead efforts to reach a global agreement on plastics. Standards are being developed for the circular design of fishing gears to facilitate their re-use and recycling. The agenda, shaped by the Action Plan, includes other “circular measures” affecting the maritime sector, such as the revision of the standards for ship

recycling and the initiatives aimed at ensuring the environmentally sound management and optimal treatment of decommissioned offshore oil and gas platforms.

3. CONCLUSIONS

Overall, the EGDSF presents a strategy for reconciling economic growth with the urgent need to effectively tackle environmental challenges. This requires a deep transformation of the economic system. With regard to the blue economy, some traditional sectors will be cut back. This is the case of offshore fossil fuels, which, based on the EGD, have no viable future, although the Commission recognizes that, in the short run, fossil gas may still play a role, as long as clean energy cannot yet be deployed on the desired scale. Other traditional sectors, such as fisheries, seafood farming, coastal tourism and transport, will need to “evolve” to improve their sustainability and circularity. New and emerging activities, including blue biotechnology, algae production, green infrastructures and certain innovative offshore energy (e.g. wave and tidal) hold significant potential for the future and will further expand, even if their environmental impacts have to be carefully studied and monitored. This sustainable transition of the blue economy will contribute to delivering on the EGD environmental ambitions, resulting in healthier oceans, which in turn, within a virtuous circle, will bring further benefits to the blue economy.

Two issues deserve special attention in the implementation phase. In the first place, tensions and potentially conflicting activities are present in the EU seas, also considering that there is no private property on marine waters. Joint efforts and enhanced cooperation between all the sea users are, therefore, crucial to turn the EGD into reality. Secondly, investments are essential to meeting the EGD objectives and they will have to be scaled-up and will have to mainstream all the sustainability issues described above. According to the European Commission, by 2030, one third of investments in the blue economy is at risk of being still unsustainable (EC, 2021a). About 600 billion Euros investments from the Next Generation EU Recovery Plan and the multiannual financial framework will finance the implementation of the EGD. EU public funding will have to support especially less mature technologies and projects that need to attract investors, bring down costs and uncertainties, and accelerate market entry. With regard to the private sector, the EU taxonomy for sustainable investments (EU, 2020), along with other relevant initiatives (e.g. the voluntary Sustainable Blue Economy Finance Initiative, developed, *inter alia*, by the Commission, the European Investment Bank and the WWF; UNEP website) will help to channel private funds to achieve the transition.

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