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Research Article

The Effect of the European Green Deal on Turkish Maritime Transport Sector from a Legal Perspective

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Abstract

The aim of the research is to review the contributions of the European Green Deal (EGD) and the acquis communautaire to the decarbonization targets of Turkish maritime transport sector. As the methodology of the research, a detailed and comparative analysis was followed by reviewing the legal documents both in the European Union (EU) law and Turkish law, international agreements and official statistical data. The main question of the research is to review how the compliance works of Türkiye with the acquis communautaire at the field of the decarbonization of Turkish maritime sector shapes the Turkish law based on EGD and Türkiye Green Deal Action Plan (TGDAP). Therefore, the paper is considered by the author, will contribute to the literature by delving into the recent developments. The decarbonization targets for the maritime transportation sector mentioned in the EGD have a significant impact on the decarbonization targets in the Turkish maritime which constitutes a significant field in TGDAP. It is concluded that the European Commission's Financing Agreement, which determines actions such as donating existing ships with renewable energy technologies, building new ships, and supplying alternative fuel infrastructure in port activities in Türkiye, shall also make significant contributions to the realization of the commitments given by Türkiye at the international agreements for the decarbonisation of maritime activities in the Mediterranean and Black Sea regions, respectively and shall increase the close cooperation between the Turkish authorities and the EU in combating climate change.

Keywords: *Greenhouse Gas Emissions, Decarbonisation of Maritime Activities, European Green Deal, Türkiye Green Deal Action Plan, Financing Agreement.*

JEL Classification: *K23, K32, K33.*

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Avrupa Yeşil Mutabakatı'nın Türk Deniz Taşımacılığı Sektörüne Hukuki Açıdan Etkisi

Öz

Bu araştırmanın amacı, Avrupa Yeşil Mutabakatının (AYM) ve Avrupa Birliği müktesebatının Türk deniz ulaşım sektörünün karbonsuzlaştırma hedeflerine katkısının incelenmesidir. Araştırmanın metodolojisi olarak hem Avrupa Birliği hukuku hem de Türk hukukundaki yasal metinler, uluslararası anlaşmalar ve resmi istatistiki veriler incelenerek detaylı ve kapsamlı bir araştırma gerçekleştirilmiştir. Araştırmanın asıl sorusu, AYM ve Türkiye Yeşil Mutabakat Eylem Planı (TYMEP) temelinde Türk denizcilik sektörünün karbonsuzlaştırılmasına ilişkin olarak AB müktesebatına uyum çalışmalarının bu alanda Türk hukukunu nasıl şekillendirdiğini araştırmaktır. Bu sebeple yazar tarafından, güncel gelişmeler detaylı incelenerek, metnin literatüre katkı sağlaması hedeflenmektedir. AYM'de bahsedilen deniz ulaşım sektörü için karbonsuzlaştırma hedefleri, TYMEP'de önemli bir alanı oluşturan Türk denizciliğinde karbonsuzlaştırma hedeflerine önemli etkisi bulunmaktadır. Mevcut gemilerin yenilenebilir enerji teknolojileri ile donatılması, yeni gemilerin inşa edilmesi ve Türkiye'deki liman faaliyetlerinde alternatif yakıt altyapısı tedarikinin sağlanması gibi eylemleri belirleyen Avrupa Komisyonu'nun Finans Anlaşması, Türkiye tarafından ayrı ayrı hem Akdeniz hem de Karadeniz bölgelerindeki denizcilik faaliyetlerinin karbonsuzlaştırılması için uluslararası anlaşmalarda verilen taahhütlerin gerçekleştirilmesine önemli katkı sağlayacak ve iklim değişikliğiyle mücadelede Türk makamları ile AB arasındaki yakın işbirliğini de artıracaktır.

Anahtar Kelimeler: *Sera Gazı Emisyonları, Denizcilik Faaliyetlerinin Karbonsuzlaştırılması, Avrupa Yeşil Mutabakatı, Türkiye Yeşil Mutabakat Eylem Planı, Finans Anlaşması*

JEL Sınıflandırılması: *K23, K32, K33.*

1. Introduction

The European Green Deal (EGD), as a result of the works of the European Union (EU) to achieve the targets in the Paris Agreement, has been set out a clear vision for achieving the target of climate neutrality by 2050 (European Commission, 2019). On this basis, the European Climate Law (Regulation 2021/1119) has been adopted to ensure that all EU policies contribute to the goal of climate neutrality and that all sectors provide their contribution. In accordance with the European Climate Law, climate neutrality goal has been set in the EU by 2050 following the long-term temperature target specified in paragraph (a) of the Article 2(1) of the Paris Agreement. Action fields have also been determined in the transportation sector in the EGD, as all sectors will contribute to achieving the goals in the Paris Agreement.

Considering the current situation in the maritime sector in the EU, maritime transport constitutes 75% of the Union's foreign trade and 31% of its domestic trade (European Commission, 2023a). It was found out that there was a 36% increase in emissions from fossil fuels sold within the Union on voyages from one Member State to another Member State or to a third country since 1990 (Directive 2023/959, Recital 17). In addition, carbon dioxide emissions from maritime transportation constitute 3-4% of the Union's total emissions (Directive 2023/959, Recital 20). If this rate increases, the Union's goal of climate neutrality by 2050 will be jeopardized (European Commission, 2019). Thus, within the scope of the Paris Agreement and the EGD, the maritime sector has also taken a place among the sectors included in achieving the targets to decrease greenhouse gas (GHG) emissions (Ghoneim, et al., 2023; Bhattacharyya, et al., 2023).

Türkiye, which is a candidate country for the EU, also published a Turkish Green Deal Action Plan (TGDAP) compatible with the EDP within the framework of its efforts to harmonize with the a*cquis communautaire*. The relevant plan was prepared by the Ministry of Commerce and announced in 2021 (Ministry of Commerce, 2021). In this context, in line with the EGD, it is aimed to reduce emissions in transport sector at a level 90% in Türkiye by 2050. As an important development, it should be stated here that Türkiye, which were criticized for a long time for not signing the Paris Agreement (Alan, 2021), became a party to the Agreement and the Paris Agreement came into force in Turkish law by being published in the Official Journal of the Republic of Türkiye (OJRT) dated 7

October 2021 and numbered 31621. Therefore, the temperature targets in the Paris Agreement, which requires reducing GHG emissions, thus became a part of Turkish law. Attaining the targets of the Paris Agreement also requires the decarbonisation of all sectors, including maritime as stated in the TGDAP (Ministry of Commerce, 2021).

Based on the above-mentioned explanations, this research will examine the actions and targets carried out within the framework of the EGD and TGDAP on the decarbonization of the maritime sector in the EU and Türkiye, and in this context, the effects and contributions of the EGD on the decarbonization of the Turkish maritime will be reviewed.

2. Methodology

As this research delves into a comparative legal issue directed to find out the compatibility of Turkish law with the *acquis communautaire* regarding the decarbonization of maritime sector in terms of legal perspective, the effective documents in the EU law and Turkish law are reviewed in detail for this aim. And the studies in the field of law which covers the actions for decarbonising the maritime sector are analyzed.

3. Literature Review

In his research, Cecen analyzes the last legislation in the EU law regarding the decarbonization of maritime sector and their effect on Turkish law. In accordance with his research, in order to decarbonize the maritime sector in the EU, a series of different legislative documents were adopted. Among these legislative documents, the Regulation 2023/957 includes the maritime activities into the EU Emissions Trading System (ETS) which is a cornerstone mechanism for reducing the GHG emissions in most sectors in economy as Wang and the others, and Baştuğ and the others stated in their articles (Wang and the others, 2024:1; Baştuğ and the others, 2024:8). Another legislative document adopted to reduce GHG in maritime sector is the Directive 2023/959. The said Directive also includes important provisions regarding the inclusion of the maritime activities into the EU ETS. Not just the voyages of the ships and vessels between the ports located in the EU are included into the EU ETS in order to reduce the GHGs from their activities but also the voyages of the ships and vessels between the ports located in the EU and the ports located out of the EU are subject to "the allocation of allowances and the application of surrender requirements in respect of fifty percent of the emissions" from these voyages. And as an other important development in the EU law regarding the decarbonization of maritime sector is the adoption of the Regulation 2023/1805 as the formal version of FuelEU Maritime Initiative which limit the "GHG intensity of the energy used on board by a ship" during its voyage, from/to the ports located in the EU. These provisions have also effects on the ships and vessels in Turkish maritime sector which carry out activities to the ports located in the EU (Cecen, 2024:132). It would cost higher for shipping companies, including Turkish shipping companies, once they integrate their maritime transport activities into the EU ETS (Baştuğ and the others, 2024:8).

Malmborg is of the opinion that "the FuelEU Maritime is a way for the EU to gain first mover advantage in the transitioning of the maritime sector to carbon neutrality by 2050" (Malmborg, 2023:7). And according to Grzelakowski and the others, the FuelEU Maritime will "accelerate the production and implementation of new low-carbon fuels as soon as possible" (Grzelakowski and the others, 2022:6).

Yolcu also reviews the green implementation of EGD in logistics and claims that the EU, as a global actor in logistics, follows a strategy to trigger all the countries in the world to take action in green transformation of logistics and it will be very costly for Türkiye to realize green conversion in this field (Yolcu, 2023:141). But as Ozerdem assert in Customs Union will be an opportunity for Turkish companies comparing to the other trade partners of the EU such as Mexico and Vietnam in case that Türkiye follows a roadmap compatible with the EGD (Ozerdem, 2024:60-61).

Tunahan and the others make a research on the compatibility of Turkish logistics with the EU's "Fit for 55" (Tunahan and the others, 2023). As the researchers also stress in their article, the EU included the maritime activities into the EU ETS which also have effect on the voyages of the ships and vessels between the ports located in the EU and the ports located in third countries (Tunahan and the others, 2023:235). Tunahan and the others also allege that the second most affected country from the EU legislation in decarbonising the maritime sector among the trade partners of the EU would be Türkiye (Tunahan and the others, 2023:237) as a result of the fact that most of Turkish ships, which make voyages to the ports located in the EU, are part of ro-ro transport, the most GHGs emitting type in maritime transportation (Tunahan and the others, 2023:240). As the finding of their research on Turkish companies in logistic sector, their professional organisations and the related Turkish public authorities, the research reveals that the infrastructure lacks sufficiency and the roadmap is uncertain (Tunahan and the others, 2023:249). The similar findings may be read at the research of Kanberoglu and the others. They observed that "more than 60% of Turkish-fleet ships do not comply with the terms and conditions of the required reference line for the present" and "additional measures would also be taken such as energy saving devices or using of alternative fuels by shipowners, otherwise, the shipowners have no choice but to sell the vessel" (Kanberoglu and the others, 2023:726). Baştuğ and the others also find out in their research that "the availability of finance and of financial sources poses a significant barrier to the transformative journey towards a green shipping industry"and "funds are essential for financing the transition to cleaner technologies and infrastructure, while incentives provide motivation and rewards for shipowners and operators to enable them to make sustainable choices." (Baştuğ and the others; 2024:17).

4. Decarbonisation targets of Turkish maritime sector within the framework of Türkiye's Green Deal Action Plan

The maritime trade of Türkiye was approximately doubled from 2005 to 2015. Annual growth rate is 6,27%. This is because Turkish ports constitute important pillars in international trade. However, Turkish ports are also at an early stage in the sector's green conversion. Since fossil fuels are used as a power source in Turkish maritime activities, energy efficiency measures are also important to reduce CO_2 emissions from maritime activities (European Commission, 2021a).

In the EGD, it was stated that all sub-branches of the transportation sector, namely road, rail, aviation and maritime transportation, should contribute to the reduction in order to "*reduce emissions from transportation by 90% by 2050*" for the EU's climate neutrality target (Grzelakowski and the others, 2022:6). In this context, ending fossil fuel subsidies in maritime sector, expanding the EU Emissions Trading System (ETS) to the maritime sector and coordinating action at the global level with the International Maritime Organization (IMO) were counted among the priority actions. These priority actions aim to regulate the access of the most polluting ships to EU ports (European Commission, 2019; Adamowicz, 2022). And carbon revenues from shipping are also deemed as an effective tool to "support investments in zero-GHG bunker fuel infrastructure and vessels" additionally (Dominioni, 2023:4).

Sustainable and Smart Transport Strategy (SSTS) has been declared by the European Commission to decrease GHG emissions in the transportation sector, which is included in the EGD (Grzelakowski and the others, 2022:6). In the SSTS, the importance of the FuelEU Maritime initiative to increase sustainable maritime fuels was mentioned and it was also stated that the EU would work together with the IMO to determine concrete measures to achieve science-based global emission reduction targets in line with the Paris Agreement (European Commission, 2020).

In this context, in order to comply with the EGD, the policy to enhance the use of green vehicles has been included within the framework of TGDAP on the basis of the SSTS announced by the European Commission. It is noticed that, to achieve this goal, "the introduction of zero-emission vehicles in maritime transport, developing electric vehicle infrastructure, increasing the production/use of

sustainable and alternative fuels, pricing of transportation by taking into account its effects on the environment" are included. In addition, it was set in the TGDAP, as a goal, "to reduce GHG emissions in transportation by 90% by 2050 through creating an environmentally friendly, smart, competitive, safe, accessible and affordable transportation system" in line with the EGD (Ministry of Commerce, 2021).

Another important action field in TGDAP is the work on the development of green port practices. Green port practices are a project being practiced in Türkiye for a while by the General Directorate of Maritime Affairs under the Ministry of Transport and Infrastructure (MTI). After the practice principles regarding the Green Port project were announced in 2012, they were updated in accordance with the Green Port/Eco Port Cooperation Protocol signed with the Turkish Standards Institute on 16 December 2014 (Directorate General of Maritime Commerce, 2015). It was required for the port operator to obtain an operating permit or temporary operating permit in accordance with the "Regulation on Procedures and Principles for Granting Operating Permits to Coastal Facilities" dated 18 February 2007 and numbered 26438.

The relevant regulation has been updated and the "Regulation on the Issuance of Green Port Certificates for Coastal Facilities", which includes the principles of green port practices, came into force by being published in the OJRT dated 18 November 2023 and numbered 32373. By the adoption of the mentioned Regulation, it is aimed to extend and support the efforts to increase energy efficiency by reducing the environmental damage caused by ship and cargo operations of coastal facilities, and an important step has been taken to realize the strategy included TGDAP for putting the framework regarding the establishment of environmentally friendly, sustainable and competitive port facilities on a legal basis by promulgating the national legislation for green port certificate program.

Coastal facilities wishing to apply for a green port certificate within the scope of the relevant Regulation must submit the documents specified in Annex-4 to the competent administration. Among the documents specified in Annex-4, there are also additional documents that are important in terms of the strategies specified in the EGD and the TGDAP. In this context, the Renewable Energy Sources Guarantee Certificate (YEK-G) or International Green Energy Certificate (I-REC) provided by the supplier to prove that at least 5% of the energy consumption of the coastal facility is covered by electricity produced from renewable energy sources (RES) are among the mandatory documents.

In addition, the action fields include making exhaust emission measurements of vehicles using fossil fuels within the facility every year and not allowing vehicles without valid measurements to enter the facility. Necessary steps must be taken to reduce GHG emissions, ensuring that at least 50% of the energy consumed by the total main handling equipment of the facility is covered by electrical energy, carrying out the necessary infrastructure and superstructure work to provide electrical connection from the port to ships, establishing a Zero Waste Management System within the scope of the Regulation on Zero Waste and obtaining a Zero Waste Certificate.

Together with the green port practices, it is also followed to "establish a financial support mechanism for innovative technologies that will be used for environmentally friendly, sustainable and safe transportation in the ships and ports", as well as the establishment of relevant infrastructures, the construction of new ships which will work with low-emission alternative fuels or the conversion of existing ships in this way and "cold ironing" in port facilities (Ministry of Commerce, 2021; Baştuğ et al., 2024:9).

In line with the targets established in the TGDAP, the "Regulation on the Promotion of the Construction of New Ships to Replace Scrapped Turkish Flag Ships" was published in the OJRT dated 28 April 2021 and numbered 31468. According to the said Regulation, "a grant of 25% of the conversion cost is provided to ship owners who converts the power for the main engines of existing ships from fossil fuel to an alternative environmentally friendly energy source" (Ministry of Commerce, 2022).

Other important documents, which are supposed to be mentioned regarding the decarbonization of the Turkish maritime, are the Türkiye's Development Plans. In the Eleventh Development Plan (2019-2023), it was stated that Türkiye would "follow the green growth policy and transform the vessels used in long-distance passenger and vehicle transportation into environmentally and energy-friendly electric ships" and would "expand the sustainable green port practices" (Presidency of Strategy and Budget [PSB], 2019). The Twelfth Development Plan for the years 2024-2028, which includes the policies of Türkiye towards supporting the green conversion of Turkish maritime (PSB, 2023), are mentioned below:

- Increasing the number of green ports on the basis of digitalization and energy efficiency by developing the Turkish maritime merchant fleet (277)
- Continuing to support green port practices by encouraging the use of low-emission/non-emission-producing machinery and equipment to minimize environmental impacts by increasing energy efficiency in port operations (606.3.)
- Encouraging R&D studies for the dissemination of environmentally friendly, new generation sea and air vehicles (606.4.)

One last development, which should be stated at this point, is the preparation of a climate law in Turkish legal system. In its 2023 Türkiye Progress Report, the European Commission stated that Türkiye was about to adopt a climate law (European Commission, 2023b). The law mentioned by the European Commission is the Climate Change Bill.

Although there were several attempts to draft a climate law by the Ministry of Environment, Urbanization and Climate Change (MEUCC), the text of the draft law has not been officially promulgated or submitted to the Turkish Parliamentary yet. In spite of this, a draft text was revealed. In the draft text of the Climate Change Bill, it seems that the Bill includes the "reduction of GHG emissions in combating and adaptation to climate change and planning and implementation tools for these issues in line with the green development vision and net zero emission target", and important provisions regarding activities in the maritime transport are also included in the mentioned Bill. In particular, the MTI is delegated important powers and duties: In this context, with the provisions set out in the Bill, the MTI shall have the authority to "develop and extend the use of low or zero emission, energy efficient and alternative clean fuels in international and intercity passenger and freight transport by sea". The MTI also shall be responsible to "work towards decarbonising ports, maritime transport activities and all elements in the shipping value chain, developing zero-emission refueling and charging capabilities, deploying low- or zero-emission ships, creating green shipping corridors and taking the necessary measures for the adaptation of these sectors to climate change by determining the negative impacts of climate change on the transport and maritime sectors" (MEUCC, 2023). Particularly, creation of green shipping corridors, among one of the possible future task of the Turkish MTI in accordance with the draft text of Climate Change Bill of Türkiye, has become an important issue in decarbonisation of international maritime. The Clydebank Declaration at the 26th Conference of Parties in Glasgow in 2021 stresses the need to reduce the GHG emissions from international shipping also by decarbonising the logistics chain (Song et al., 2023:2). So, besides committing the creation of green shipping corridors at the Climate Change Bill, the MTI is delegated important duties in taking actions and putting these actions into effect in order to achieve green conversion and decarbonization of the Turkish maritime sector in line with the EGD (MEUCC, 2023) and Clydebank Declaration.

In addition, in case that the ETS in the draft law is established, one of the sectors which will be included in the system within the framework of compliance with the *acquis communautaire*, may be the maritime sector. The EU has already included the maritime activities into its ETS and has adopted the Regulation 2023/957 which regulates the inclusion of maritime activities into EU ETS. In this

context, including the Turkish maritime activities into the ETS, which is considered to be established in Türkiye, shall also contribute to fully comply with the related directives and regulations of the EU.

In the first part, it is concluded that in order to comply with the decarbonization targets in the maritime within the scope of the EGD, importance is given to decarbonization of the maritime in the TGDAP. The expansion of green port practices, which have been implemented in Türkiye for a while, constitutes one of the strategic goals expressed in both the TGDAP and the Twelfth Development Plan of Türkiye.

In the second part, the effects of the European Commission's decision titled "Implementing Decision on the financing of the annual action plan in favor of Türkiye for 2021", which will help decarbonize the Turkish maritime sector and its adaptation to the EGD, will be reviewed.

5. Decarbonisation targets of Turkish maritime sector within the framework of the "Implementing Decision on the financing of the annual action plan in favor of Türkiye for 2021"

Another important instrument regarding the decarbonization of Turkish maritime sector is the European Commission's "Implementing Decision of 16.12.2021 on the financing of the annual action plan in favour of Türkiye for 2021". The "Implementing Decision of 16.12.2021 on the financing of the annual action plan in favour of Türkiye for 2021" was regulated by the Commission on the basis of the "Implementing Decision of 10.12.2021 adopting the Instrument for Pre-Accession Assistance (IPA III) Programming Framework for the period 2021-2027" prepared based on the Article 9(1) of the "Regulation (EU) 2021/1529 of 15 September 2021 establishing the Instrument for Pre-Accession assistance (IPA III)".[1]

The section titled "Window 3: Green Agenda and Sustainable Connectivity" of the Implementing Decision of 10.12.2021 regulates the green conversion of the transportation sector, and prevention of marine pollution (European Commission, 2021b).[2] The financial framework of this section was set under the "Implementing Decision of 16.12.2021 on the financing of the annual action plan in favor of Türkiye for 2021". The fifth annex titled "Sustainable Green Energy and Transport" section of the "Implementing Decision of 16.12.2021 on the financing of the annual action plan in favor of Türkiye for 2021", includes important actions regarding the green conversion of the Turkish maritime sector and the financing of these actions (European Commission, 2021a).

One of the prominent actions stated in the Commission's Implementing Decision dated 16.12.2021, "Maritime Decarbonisation and Green Shipping Program", is the "retrofitting of old vessels and the construction of new vessels in order to own environmentally friendly, low-emission, energy-efficient maritime fleet". Another prominent action stipulated in the Commission's Implementing Decision is to "improve the supply of alternative fuel infrastructure to power port activities". In this context, strategies for decarbonization of Turkish maritime sector include reducing GHG emissions, deploying RES, and supporting climate resilient investments to promote energy efficiency and circular economy (European Commission, 2021a).

In its "Implementing Decision on the financing of the annual action plan in favor of Türkiye for 2021", the European Commission arranges the actions and fund allocation to be carried out for the green conversion of and decarbonization in the Turkish maritime in detail. This decision of the Commission, which contributes to the EGD in addition to the legal regulations in Turkish law, shall have an impact on the practices in Turkish maritime.

[1] The aim of the Regulation 2021/1529 is to "provide political, institutional, legal, administrative, social and economic support to the candidate countries, including Türkiye, in order to comply with the Union values" and "to progressively align to Union rules, standards, policies and practices in terms of future Union membership".
[2] It was stated by the Commission that this decision would also contribute to the European Green Deal due to its content.

Another contribution of the Commission's Implementing Decision is to the modernization of Turkish fleet. A significant part of the vessels in Turkish fleet is more than 20 years old in line with the research of Kanberoglu et al. (Kanberoglu et al., 2023:726) and of Tunahan et al. (Tunahan et al., 2023:240). In addition, vessels in the Turkish commercial fleet also need to be modernized by including new sustainable technologies. However, the "Turkish maritime industry has a key role for economic growth and acts as a catalyst for global trade" (European Commission, 2021a). At the same time, the transportation sector constituted 22.6% of the total GHG emissions in Türkiye in accordance with the National Inventory Report submitted to the UNFCCC in 2021 (Turkish Statistical Institute, 2021). And the maritime industry is considered to grow in the long term due to the increase in economic growth of Türkiye. Additionally, many seaports in Türkiye are vulnerable to climate change risks and lack energy efficiency (European Commission, 2021a).

Within the framework of the program, the required financial sources are provided as grants and loans by the European Bank for Reconstruction and Development (EBRD). Additionally, technical support and capacity development is also provided within the framework of the program. It is necessary here to express the contributions of the EBRD. The EBRD invested in Türkiye more than €17.3 billion (Sari, 2023). "Accelerating Türkiye's Green Economy Transformation and Regional Energy Connectivity" is also among EBRD's operational priorities. In addition to the 20 million Euro as an IPA contribution, it is expected to get a supplementary investment of 50 million Euros from the EBRD and the other funders. The projects on "the development of the bunkering of alternative fuel infrastructure with LNG, Bio-LNG, hydrogen and ammonia, the use of renewable equipment such as solar panels in port operations, and the use of zero or low emission vehicles in the coastal part of the port" will be supported with the funds provided by the EBRD. The "retrofitting of existing vessels and the construction of new green vessels" are also intended to realize the green conversion of maritime fleet and to create a sustainable marine environment. The EBRD also stated that the projects, which do not target to implement green transformation measures, would not be supported (European Commission, 2021a).

The contribution of the Commission's Implementing Decision to the policies of Türkiye in this context is also important. Firstly, Türkiye committed to decrease GHG emissions resulting from maritime activities at the international level. Türkiye approved IMO's MARPOL Annex VI in 2013, titled "Regulations for the Prevention of Air Pollution from Ships" (European Commission, 2021a). The IMO's GHG emissions reduction strategy in 2023 set the indicative checkpoints as "to reduce the total annual GHG emissions from international shipping by at least 20%, striving for 30%, by 2030, compared to 2008; and to reduce the total annual GHG emissions from international shipping by at least 70%, striving for 80%, by 2040, compared to 2008" (IMO, 2023; Grzelakowski et al., 2022:5). Türkiye also signed "the Ministerial Declaration of the Union for the Mediterranean on sustainable blue economy" (Union for the Mediterranean, 2021) and "the Bucharest Ministerial Declaration on the Common Maritime Agenda for the Black Sea" (Common Maritime Agenda for the Black Sea, 2019) to support the policies for "ensuring sustainable, climate-neutral and zero-pollution maritime transportation" in both the Mediterranean and the Black Sea. By signing the relevant declarations, Türkiye undertakes important commitments regarding the decarbonization of maritime in both the Mediterranean and the Black Sea. For instance, in order to promote the transformation of ship vessels and ports in the Mediterranean towards carbon-neutrality and zero pollution, the Ministers calls for "the specific needs and priorities of Mediterranean countries, including investments in the provision of Onshore Power Supply" and "the development of alternative fuels for ships, as well as investments in energy-saving technologies for port activities and an increase in infrastructure investments". The Ministers envisage "encouraging Mediterranean countries to actively cooperate and contribute to the implementation of joint projects in the provision of clean energy and technology" (Union for the Mediterranean, 2021).

Achieving the objectives within the framework of the Commission's Implementing Decision is only possible with the cooperation between the EU and Türkiye and the financial support of the EU, which Baştuğ et al. also believe that the availability of finance poses a significant barrier before a green shipping industry (Baştuğ et al.; 2024:17). The projects to be implemented will contribute to the creation of Turkish fleet of green ships and the management of the private sector in a climate-related manner. And it will gradually contribute to the environmentally friendly conversion of Turkish maritime activities and significantly improve the environmental performance of the region. Performing the Commission's Implementing Decision will take the relations between the EU and Türkiye further in maritime by ensuring progressively compliance of the Turkish regulations with the EU transportation policies and increase the sustainability and efficiency of Turkish maritime transportation.

The support provided to Turkish seaports, which considered an important pillar in international trade, by the Commission's "Implementing Decision of 16.12.2021 on the financing of the annual action plan in favour of Türkiye for 2021" within the framework of the IPA III program, shall not only ensure the decarbonization of the Turkish maritime transportation, but shall also enable the performance of the targets in the Twelfth Development Plan for the years 2024-2028 of Türkiye. The mentioned decision of the Commission will also contribute to the Paris Agreement targets and IMO strategies by reducing GHG emissions. Via the funds provided by EBRD under IPA III program, the compliance of the Turkish maritime transportation with the *acquis communautaire* will also be monitored.

6. Conclusion

In this research, the effects of the EGD on reducing GHG emissions from activities in the Turkish maritime were evaluated, taking into account the harmonization efforts with the *acquis communautaire*. In line with the targets of EGD, the inclusion of activities in transportation in the target of reducing total GHG emissions has also been accepted in TGDAP. Thus, it is aimed to decarbonize the Turkish maritime through actions such as the retrofitting of existing ships, the use of renewable energy in ports, and the dissemination of green port practices. In this regard, it was decided to provide support for the decarbonization of the Turkish maritime within the framework of the European Commission's "Implementing Decision of 16.12.2021 on the financing of the annual action plan in favour of Türkiye for 2021". The relevant fund will not only contribute to the targets of the EGD and TGDAP regarding the decarbonization of the maritime sectors in the EU and in Türkiye but will also ensure that Türkiye's international commitments regarding maritime activities in the Black Sea and the Mediterranean are fulfilled.

AUTHORS' CONTRIBUTION

All parts of this study are written by a single author.

STATEMENT OF CONFLICT OF INTEREST

I hereby confirm that there is no financial conflict of interest with any institution, organization or person, and there is no conflict of interest between the authors.

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