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State Obligations under Unclos in Relation to Climate Change and its Devastating Effects on the Sea

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1. – The oceans cover 70 percent of Earth's surface; 95 percent of additional heat is trapped by our emissions and over 25 percent of our excess carbon dioxide is absorbed by the ocean [1].

Damage to ocean ecosystems caused by climate change threatens the existence of many communities, particularly in low-lying island States [2], that are urgently seeking protection under international law.

Attention to interaction between climate change and the law of the sea [3] increased significantly with the establishment of the Commission of Small Island States on Climate Change and International Law (COSIS) [4] in 2021.

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[1] See W.-H. Berger, *Ocean: Reflections on a Century of Exploration*, University of California Press, London, 2009, 31 ff.

[2] For more details, see F. Argese, *Threats from sea-level rise to small and low-lying island States: is international law a hope for "environmental refugees"?*, in *Comunità internaz.*, 3/2010, 435 ff.

[3] With reference to these relationships, see T. Federico, *Clima, oceani e risorse viventi*, in *Iter Legis*, 1-2/2007, 32 ff.

[4] COSIS is an intergovernmental organization established on the eve of COP26 (UN Climate Change Conference of the Parties), that took place in Glasgow in October 2021, for the purpose of developing international law on climate change. It is open to all members of the Alliance of Small Island States (AOSIS). In the preamble of the Agreement establishing COSIS (COSIS Agreement), concluded on 31 October 2021, we read: "*Alarmed by the catastrophic effects of climate change which threaten the survival of Small Island States, and in some cases, their very existence*". In order to address

The mandate of COSIS is to "*promote and contribute to the definition, implementation, and progressive development of rules and principles of international law concerning climate change, including, but not limited to, the obligations of States relating to the protection and preservation of the marine environment and their responsibility for injuries arising from internationally wrongful acts in respect of the breach of such obligations*" [5].

On 12 December 2022, the said Commission submitted a request on this topic to the International Tribunal of the Law of the Sea (ITLOS) [6], according to Article 2(2) of the COSIS Agreement, that authorizes it to do what it did, stating as follows: "*Having regard to the importance of oceans as sinks and reservoirs of greenhouse gases and the direct relevance of the marine environment to the adverse effects of climate change on Small Island States, the Commission shall be authorized to request advisory opinions from the International Tribunal for the Law of the Sea ("ITLOS") on any legal question within the scope of the 1982 United Nations Convention on the Law of the Sea, consistent with Article 21 of the ITLOS Statute and Article 138 of its Rules*".

In fact, all members of this Commission [7] are also parties to the United Nations Convention on the Law of the Sea (UNCLOS) [8], adopted in December 1982 in Montego Bay (Jamaica).

this existential threat, the Prime Ministers of Antigua and Barbuda and Tuvalu signed this Agreement.

[5] Article 1(3) of the COSIS Agreement.

[6] The International Tribunal for the Law of the Sea (ITLOS) is an independent judicial body established by the 1982 United Nations Convention on the Law of the Sea. It has jurisdiction over any dispute concerning the interpretation or application of the Convention. See I. Caracciolo, *L'ITLOS ["International Tribunal for the Law of the Sea" - Tribunale internazionale per il diritto del mare] nell'interpretazione della convenzione delle Nazioni Unite sul diritto del mare del 1982: la giurisprudenza sulla nave, sulle attività delle navi in mare e sulle facoltà e gli obblighi dello Stato della bandiera,* in *Riv. dir. nav.* 2/2023, 599.

[7] At the time of this request, the Commission was composed of six States from the Caribbean and Pacific, including Antigua and Barbuda, Tuvalu, Palau, Niue, Vanuatu and St. Lucia. Subsequently, St. Vincent and the Grenadines, St. Kitts and Nevis, and the Bahamas joined the COSIS Agreement.

[8] The United Nations Convention on the Law of the Sea (UNCLOS) was opened for signature, together with the Final Act of the Conference, at Montego Bay (Jamaica) on 10 December 1982 and entered into force on 14 November 1994. It was ratified by the Italian Law no. 689 of 2 December 1994. For a commentary, see M.H. Nordquist, S. Rosenne, A. Yankov (eds.), *United Nations Convention of the Law of the Sea 1982. A Commentary,* vol. 4 (Articles 192-278), Kluwer Publisher, Dordrecht, Boston, London, 1991, 2002.

In particular, the COSIS requested [9] the (ITLOS) to issue an advisory opinion on the following two questions:

"*What are the specific obligations of State Parties to the United Nations Convention on the Law of the Sea (UNCLOS), including understand Part XII:*

(a) to prevent, reduce, and control pollution of the marine environment in relation to the deleterious effects that result or are likely to result from climate change, including through ocean warming and sea level rise, and ocean acidification, which are caused by anthropogenic GHG emissions into the atmosphere?

(b) to protect and preserve the marine environment in relation to climate change impacts, including ocean warming and sea level rise, and ocean acidification?"

On 21 May 2024, ITLOS, responding to the request of the Commission, delivered a unanimous and ground-breaking Advisory Opinion (AO) [10].

The international advisory opinions are non-binding decisions, but the prestige and institutional reputation of the courts and authorities involved have a great impact in interpretering obligations of States under international law.

The present Advisory Opinion identified a number of specific State obligations under the UNCLOS in the context of climate change [11].

The Tribunal found that the obligations of UNCLOS to protect and preserve the marine environment of Small Island States from climate change im-

[9] I. Papanicolopulu, *The climate change advisory opinion request at the ITLOS,* in *Questions of International Law,* 30 Noveember 2023*,* 7 ff.

[10] ITLOS' Advisory Opinion No. 31 of 21 May 2024, issued in response to the Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law (COSIS). For a commentary, see M.A, Tigre, K.S. Roati (eds.), *ITLOS Advisory Opinion on Climate Change: Summary of Briefs and Statements Submitted to the Tribunal,* Sabin Center for Climate Change Law, Columbia Law School, New York, 2023; A. Latino, *Il parere consultivo n. 31 del Tribunale internazionale per il diritto del mare sul nesso fra gas climalteranti di origine antropica e tutela degli oceani*, in *AmbienteDiritto.it*, 2/2024, 1 ff.; Macchia, *Diving into climate change: ITLOS' Advisory Opinion in Case No. 31,* in *Diritti comparati*, 17 June 2024; C. YIALLOURIDES, S. DEVA, *A Commentary on ITLOS' Advisory Opinion on Climate Change,* BIICL (British Institute of International and Comparative Law), London, 24 May 2024; BIICL (BRITISH INSTITUTE OF INTERNATIONAL AND COMPARATIVE LAW) (ed.), *Reflections on the ITLOS Advisory Opinion,* London, 2024; R. Virzo, *Fondamento ed esercizio della competenza consultiva del Tribunale internazionale del diritto del mare: considerazioni a margine del parere del 21 maggio 2024*, in *La Comunità internazionale*, 4/2024, 603 ff.

[11] F. Munari, *L'inadeguata percezione della scienza nel diritto internazionale dell'ambiente e l'esigenza di un cambiamento di paradigma*, in *Riv. giur. amb.,* 2/2023, 443 ff.

pacts, such as ocean warming, sea level rise and ocean acidification, are very broad in scope "*encompassing any type of harm or threat to the marine environment*" [12] and including a variety of effects.

But, as the Tribunal explained, its Advisory Opinion refers to responsibility and liability only "*to the extent necessary to clarify the scope and nature of primary obligations*" [13]. In fact, it declared that its viewpoint would be restricted to primary obligations and would not extended to the legal consequences arising from any violation of such obligations.

Actually, although there is a heated debate in this subject, it is the first time that an international tribunal has issued an advisory opinion on State obligations in respect of climate change impacts.

In fact, the ITLOS decision is the first of other two advisory opinions on climate change expected to be issued by international courts and tribunals in coming months, in order to promote a better understanding of climate-related obligations [14].

In particular, other two advisory opinions are expected [15] by the Inter-American Court of Human Rights (IACtHR) [16] – submitted by Chile and Columbia in January 2023 – and the International Court of Justice (ICJ) [17].

[12] Advisory Opinion, paras 385 and 388.

[13] Advisory Opinion, para. 148.

[14] G. Naglieri, *Climate changes in Courts: different judicial approaches to government actions on cutting greenhouse emissions. Comparing Europe and America through selected cases,* in *Dir. pubbl. comparato eur.*, *online* 4/2022, 1917 ff.

[15] On this topic, see M.A. Tigre, *It Is (Finally) Time for an Advisory Opinion on Climate Change: Challenges and Opportunities on a Trio of Initiatives*, in 17 *Charleston Law Rev.*, 2024, 623 ff.

[16] It is an autonomous judicial institution, established in 1979 by the Organization of American States in order to enforce and interpret the provisions of the American Convention on Human Rights (also called the Pact of San José, Costa Rica), an international treaty that provides for rights and freedoms, signed on 22 November 1969. IACtHR is one of three regional human rights tribunals, together with the European Court of Human Rights and the African Court of Human and Peoples' Rights, whose objective is to interpret and apply the American Convention on Human Rights..

[17] On 30 May 2024 the UN General Assembly requested this Court to render an Advisory Opinion on *Obligations of States in respect of Climate Change* (order No. 187), pursuant to Article 65 of the Statute of the International Court of Justice (ICJ), signed at San Francisco (California) on 26 June 1945. In the advisory proceedings, the ICJ held public hearings on the request for an Advisory Opinion from Monday 2 to Friday 13 December 2024 at the seat of the Court, the Peace Palace in The Hague. See T. Buergenthal, *The Advisory Practice of the Inter-American Human Rights Court,* in *Am. Journ. of Intern. Law*, Vol. 79, No. 1, January 1985, 1 ff.

The ITLOS ruling thus will likely affect those expected opinions.

It arrived only a few weeks following the European Court of Human Rights (ECtHR) milestone judgment in *Verein KlimaSeniorinnen Schweiz and Others v. Switzerland* [18], which has interpreted the obligations of States concerning climate change under Article 8 of ECHR [19].

Likewise, both the 1992 UN Framework Convention on Climate Change (UNFCCC) [20] and the 2015 Paris Agreement [21] confirmed this obligation, recognizing climate change as "a common concern of mankind".

[18] Grand Chamber Judgment of the European Court of Human Rights (ECtHR) of 9 April 2024 (application No. 53600/20). Once all domestic remedies have been exhausted, an association of senior women (Senior Women for Climate Protection Switzerland) brought an action before the ECtHR against the Swiss government, because their health was threatened by heat waves made worse by the climate crisis. This judgment is part of a total of three Grand Chamber cases on climate and human rights, but the applications of the other two cases, *Carême v. France* and *Duarte Agostinho and Others v. Portugal and 32 Others*, were declared inadmissible. For a commentary of the *KlimaSeniorinnen* case, see A. G. Lana, *L'impatto della sentenza "Verein KlimaSeniorinnen Schweiz et al. c. Svizzera" sul futuro del contenzioso climatico nazionale*, in *Foro it.*, 2024, 329 ff.; P. Pustorino, *Sviluppi giurisprudenziali in materia di diritti umani e cambiamento climatico,* in *Giur. it.*, 8-9/2024, 1922 ff.; G. Raimondi, *La sentenza della Corte europea dei diritti dell'uomo nel caso "Verein KlimaSeniorinnen Schweiz et al. c. Svizzera". Una svolta nel contenzioso sul cambiamento climatico?*, in *Foro it.,* 6/2024, 4, 277 ff.; G. Grasso, A. Stevanato, *Diritto di accesso al giudice, doveri di solidarietà climatica e principio di separazione dei poteri nella sentenza "Verein Klimaseniorinnen Schweiz et autres c. Suisse",* in *Corti Supreme e Salute*, 2/2024, 571 ff.; R. R. Severino, *Il caso "Verein KlimaSeniorinnen Schweiz e altri c. Svizzera": l'emergenza climatica davanti alla Corte europea dei diritti dell'uomo. Quali possibili conseguenze per il contenzioso climatico italiano?*, in *Gruppo di Pisa*, 2/2024, 152 ff.

[19] The well-known European Convention on Human Rights (ECHR) is the international Convention for the Protection of Human Rights and Fundamental Freedoms, signed in Rome on 4 November 1950 by the Council of Europe, and entered into force on 3 September 1953. See lastly C. M. Buckley, K. Kamber, P. McCormick, *The European Convention on Human Rights – Principles and law,* Strasbourg, 2022, 13 ff.; J.G. Merrills, A.H. Robertson, *Human rights in Europe. A study of the European Convention on Human Rights*, Manchester University Press, Manchester, 2022; A. Osti, *Le "Climate Change Litigations" a Strasburgo: brevi riflessioni in attesa di tre storiche decisioni*, in *Quad. cost*., 3/2023, 678 ff.; L. Acconciamessa, *Il contenzioso climatico davanti alla Corte europea dei diritti umani, tra aspettative, rischi e realtà*, in *Diritti umani e dir. internaz.,* 2/2024, 369 ff.

[20] The United Nations Framework Convention on Climate Change (UNFCCC) was signed in New York on 9 May 1992 by 154 States at the United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro and entered into force on 21 March 1994. It is one of the three "Rio Conventions" adopted at the first Rio Earth Summit. The other two international instruments are the Convention on Biological Diversity (CBD, also known as UN Biod-

Notably, Article 2 of the UNFCCC considers "*change in the Earth's climate and its adverse effects*" as "common concerns of humankind" [22], while Article 1 of the same Convention defines "climate change" as "*a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods*" [23].

The preamble to the Paris Agreement is worded as follows: "*Acknowledging that climate change is a common concern of humankind"* [24].

iversity) and the United Nations Convention to Combat Desertification (UNCCD). The UNFCCC's main goal is spelled out in its Article 2: "*stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system*". For a commentary see, *inter alia*, C. P. R. Romano, *La prima conferenza delle Parti della Convenzione quadro delle Nazioni Unite su cambiamento climatico. Da Rio a Kyoto via Berlino,* in *Riv. giur. amb.,* 1/1996, 163; A. Postiglione, *Sostenibilità ambientale e cambiamenti climatici*, in *Dir. e giurispr. agr., alim. e amb.,* 12/2008, 1, 746 ff.

[21] The Paris Agreement of 12 December 2015 is a legally binding international Treaty on climate change, adopted by 196 Parties at the UN Climate Change Conference (COP21) that took place from 30 November to 12 December 2015 and entered into force on 4 November 2016. This Agreement includes commitments from all States to reduce their emissions and work together to address and reduce the impacts of climate change. It sets long-term goals to guide all countries to reduce global greenhouse gas emissions to hold global temperature increase to well below 2°C above pre-industrial levels and pursues efforts to limit it to 1.5°C above pre-industrial levels. For a commentary, see – *inter alia* – D. R. Klein, M. P. Carazo, M. Doelle, *The Paris Agreement on Climate Change: Analysis and Commentary,* Oxford University Press, Oxford, 2017, 107 ff.; G. Van Calster, L. Reins, *The Paris Agreement on Climate Change: A Commentary,* Cheltenham, 2021; T. STERN, *Landing the Paris Climate Agreement,* Cambridge, 2024; M. Mazzarella, *L'interesse alla tutela del clima e le iniziative internazionali ed europee per contrastare il cambiamento climatico*, in *Riv. trim, dir. pubbl.*, 3/2024, 737 ff.

[22] See the first sentence of the preamble of the UNFCCC: "*Acknowledging that change in the Earth's climate and its adverse effects are a common concern of humankind".*

[23] The Baltic and International Maritime Council (BIMCO), in its "*Climate Change Glossary*" (version 1 of 30 June 2022), defines «climate change» as "*a change in the state of the climate that can be identified (e.g. by using long-term observations and statistical tests) and which persists for an extended period, typically decades or longer. It is used in climate policy specifically to describe a change of climate, which is attributed directly or indirectly to human activity, that alters the composition of the global atmosphere, and which is in addition to natural climate variability observed over comparable time periods*". See also IPCC (Intergovernmental Panel on Climate Change) "*2018 Global Warming of 1.5 ºC: Special Report"*. See *amplius* J. MCDONALD, J. MCGEE, R. BARNES (eds.), *Research Handbook on Climate Change Oceans and Coasts*, Edward Elgar, Cheltenham, 2020.

[24] Eleventh sentence of the preamble to the Paris Agreement.

The 1992 Convention on Biodiversity [25] also recognizes biodiversity as a common concern of humankind, considering that its preamble clearly states: *"Affirming that the conservation of biological diversity is a common concern of humankind".*

Along the same lines, the UN General Assembly Resolution 69/292 of 19 June 2015 [26] might be cited where it states that Member States decided to develop "*an international legally-binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction*".

In this respect, the current discussions about marine biodiversity represent a unique opportunity for the international community to benefit from the recent climate change negotiations and reaffirm the critical value of marine biodiversity for humankind [27].

2. – Preliminarly, ITLOS questioned whether the request submitted by the COSIS falls within its jurisdiction and concluded that this issue is within its competence on the basis of Articles 21 of the ITLOS Statute [28] and 138 of its Rules [29].

[25] The 1992 Convention on Biological Diversity (CBD) is the international legal instrument for "*the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources",* dedicated to promoting sustainable development. It was opened for signature on 5 June 1992 at the United Nations Conference on Environment and Development (the Rio "*Earth Summit*"). It has been ratified by 196 nations and entered into force on 29 December 1993. For a commentary, see M. Bowman, C Redgwell, *International Law and the Conservation of Biological Diversity,* Kluwer, Alphen aan den Rijn, 1996; F. McConnell, *The Biodiversity Convention - a Negotiating History: A Personal Account of Negotiating the United Nations Convention on Biological Diversity*, Springer, Berlin, 1996.

[26] Resolution A/RES/69/292, adopted by the General Assembly on 19 June 2015, Sixty-ninth session, Agenda item 74 (a), entitled *"Development of an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction".*

[27] In addition, the 2001 International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) recognized plant genetic resources as a common concern of all countries. This Treaty, adopted by the FAO Conference, was signed in Madrid in 2001 and entered into force on 29 June 2004. For a commentary, see G. K. Moore, W. Tymowski , *Explanatory Guide to the International Treaty on Plant Genetic Resources for Food and Agriculture,* IUCN (The World Conservation Union) Environmental Policy and Law, Paper No. 57, Cambridge, 2005, 29 ff.

[28] The "Statute of The International Tribunal of The Law of the Sea" is contained in Annex VI to UNCLOS.

[29] Rules of the Tribunal ITLOS/8, 17 March 2009.

In particular, Article 21 of the ITLOS Statute provides that "*The jurisdiction of the Tribunal comprises all disputes and all applications submitted to it in accordance with this Convention and all matters specifically provided for in any other agreement which confers jurisdiction on the Tribunal*".

In this respect, ITLOS believes that, where an agreement confers on it advisory jurisdiction, Article 21 allows it to know all subjects and matters covered by this agreement.

Likewise, Article 138 of the Rules of the Tribunal states as follows: "*1. The Tribunal may give an advisory opinion on a legal question if an international agreement related to the purposes of the Convention specifically provides for the submission to the Tribunal of a request for such an opinion. 2. A request for an advisory opinion shall be transmitted to the Tribunal by whatever body is authorized by or in accordance with the agreement to make the request to the Tribunal".*

These Articles must be interpreted in conjunction with the above mentioned Article 2(2) of the COSIS Agreement that has authorized this Commission to submit a request to ITLOS.

In the present case, the Tribunal found that the COSIS Agreement, which expressly authorizes the Commission to request ITLOS to give advisory opinions, falls within the agreements conferring advisory jurisdiction on the Tribunal.

In addition, in its view, there is no doubt that COSIS falls within the category of *"whatever body"* authorized to make the request to the Tribunal.

Having recognized itself competent to issue the advisory opinion requested by this Commission, the Tribunal wondered if it could exercise its discretion to avoid answering.

Ultimately, with the support of a vast majority of States Parties to UNCLOS, ITLOS exercised its discretion to issue the present Advisory Opinion, believing that "*sufficient information and evidence have been made available"* and considering the questions "*clear and specific"* and "*compatible with its judicial functions"* [30].

3. – With respect to the first question – regarding the obligation "*to prevent, reduce, and control pollution of the marine environment which are caused*

[30] Advisory Opinion, para. 120.

by anthropogenic greenhouse gas (GHG) emissions into the atmosphere" – the Tribunal preliminarily noted that human activities have played an unequivocal role in increasing greenhouse gas (GHG). Therefore, it is not surprising that it affirmed that the 170 States Parties to UNCLOS have "*specific obligations to take all necessary measures to prevent, reduce and control marine pollution from anthropogenic GHG emissions*" [31].

At this purpose, the current opinion focused on three key aspects: a) interpretation of "marine pollution"; b) States' obligation to take all necessary measures to prevent, reduce, and control GHG emissions; and c) States' obligation to exercise "stringent due diligence".

3.1 – According to the first aspect, the current Opinion stated that to understand the meaning of the expression "marine pollution" is "*a conditio sine qua non*" to identify the content of legal obligations under Article 194 of UNCLOS.

Article 1.1(4) of the Montego Bay Convention defines "pollution of the marine environment" as the "*introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities*".

Actually, the UNCLOS Convention does not explicitly identify GHG emissions as a specific pollutant and does not expressly mention their impact on climate change and ocean acidification [32]. In fact, the effects of climate change on the oceans were not considered during the negotiations which led to the Montego Bay Convention.

Therefore, the Tribunal's interpretation of the expression "marine pollution" is very important.

In this context, according to the ITLOS view, Article 1.1(4) of UNCLOS sets out the following three cumulative criteria for determining what causes pollution of the maritime environment: (1) the identification of a substance or

[31] Advisory Opinion, para. 441(3)(b).

[32] R. Makomere, J. McDonald, *Responding to ocean acidification beyond climate governance*, in J. McDonald, J. McGee, R. Barnes (eds.), *Research Handbook on Climate Change Oceans and Coasts*, cited, 330.

energy; (2) the direct or indirect introduction of this substance or energy into the marine environment; and (3) the adverse effects resulting from the introduction of this substance or energy into the marine environment.

Given the above, ITLOS concluded that anthropogenic GHG emissions caused by human activities meet these three criteria and therefore is part of the concept of "marine pollution" pursuant to Article 1.1(4) of UNCLOS.

According to the statement contained in the Advisory Opinion, the GHG emissions must be considered as "pollution" under Article 1.1(4) of UNCLOS, both directly as "substances" and indirectly as "energy" causing global warming.

In particular, the Tribunal found that GHG emissions absorbed by the oceans cause pollution, due to their disastrous effects on the marine environment, including ocean acidification, ocean warming and other harmful consequences. It referred to the severe consequences of the CO2 dissolved in the seawater, which leads to ocean warming and ocean acidification.

In fact, these emissions alter the physical, chemical and biological characteristics of the marine environment, cause adverse effects on marine life and human health and also affect the legitimate uses of the sea.

This conclusion concerned any source of pollution, whether land-based, vessel-based, and atmospheric.

3.2 – As far as the second aspect, relating to the States' obligation to take "all necessary measures" [33], ITLOS found that countries have a specific obligation to protect and preserve, *inter alia*, the marine environment from climate change impacts and ocean acidification, including restoring marine habitats and ecosystems in the event of environmental degradation.

According to the current Advisory Opinion, "specific obligations" refer to "*concrete or particularized obligations, in contrast to general obligations*" aimed at preventing, reducing, and controlling pollution of the marine environment, but it "*may also mean obligations specific to pollution of the marine environment in relation to the deleterious effects arising from climate change and ocean acidification*" [34].

In other terms, the Tribunal considered both these meanings of the term "*specific*" in responding to the questions asked.

[33] See F. Pongiglione, *On Climate Duties*, in *Notizie di Politeia,* 151/2023, 117.
[34] Advisory Opinion, para. 156.

In order to fulfill their duty to adopot preventive measures, States are required to cooperate, directly or through competent international organizations, with a view to preventing, reducing, and controlling marine pollution from anthropogenic GHG emissions, including issuing rules, standards, and recommended practices and establishing appropriate scientific criteria for rules and standards.

Other countries' obligations are: to monitor and publish reports of their activities, and conduct environmental impact assessments (EIAs) [35] as a means to address marine pollution from anthropogenic GHG emissions [36]; to take measures necessary to preserve living marine resources threatened by climate change impacts and ocean acidification; to cooperate with a view to adopting effective measures, necessary to ensure the conservation and development of shared stocks; to take appropriate measures to prevent, reduce, and control pollution from the introduction of non-indigenous species, due to the effects of climate change and ocean acidification; to promote studies, undertake scientific research, and encourage the exchange of information and data; to assist developing States, in particular, the most vulnerable ones, in their efforts to address marine pollution from anthropogenic GHG emissions, through technical, technological, financial, and capacity-building assistance and support.

Therefore, enhanced effective climate action should be implemented in a just and inclusive manner, while minimizing negative social and economic impacts that may arise from climate measures.

ITLOS properly clarified that the States' obligation to take "all necessary measures" does not entail the immediate cessation of anthropogenic GHG emissions. It is an "*obligation of conduct*" rather than an "*obligation of result*" [37]. In fact, this obligation requires State Parties "*to deploy adequate means,*

[35] See the EU's Environmental Impact Assessment (EIA) Directive (2011/92/EU Directive of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment) (*O.J.* L 26, 28 January 2012), as amended by Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (*O.J.* L 124, 25 April 2014).

[36] B. Mayer, *The International Law on Climate Change,* Cambridge University Press, Cambridge, 2018, 243; B. Mayer, *Environmental Assessment as a Tool for Climate Change Mitigation,* Oxford University Press, Oxford, 2024.

[37] Advisory Opinion, para. 233.

to exercise best possible efforts, to do the utmost" [38] to control marine pollution, based on their respective capabilities, according to the principle of "common but differentiated responsibilities and respective capabilities" (CBDR-RC) [39].

As provided for in paragraph 1 of Article 194 of UNCLOS, States are required to adopt all measures that are necessary to prevent, reduce and control pollution of the marine environment from any source "*using for this purpose the best practicable means at their disposal and in accordance with their capabilities*".

This CBDR-RC principle, reaffirmed by the Framework Convention on Climate Change (UNFCCC) [40], recognizes the different capabilities and responsibilities of countries in addressing climate change.

In particular, the Tribunal noted that, while all countries have a specific obligation to take "all necessary measures" to prevent, reduce and control marine pollution from emissions, the scope and content of those measures may vary, depending on the States' capabilities.

In other words, all countries are responsible for addressing global environmental destruction, but they are not equally responsible.

Therefore, ITLOS clarified that the developed States must continue to play a leading role in complying with obligations arising from Article 194, paragraph 1, of UNCLOS.

In addition, the Tribunal identified two determining factors in adopting all necessary measures: (1) science and (2) relevant international rules and standards [41].

According to the first element, States are required under Article 194 of UNCLOS to take "all necessary measures" to reduce GHG emissions [42], in line with the best available science.

The above mentioned UN Resolution 43/53 already recognized the need for further research and studies on all sources and causes of climate change.

Many studies and scientific researches have shown that the oceans and climate are inextricably linked. On one hand, many negative consequences

[38] Advisory Opinion, para. 233.

[39] About the CBDR-RC principle, that establishes the common governmental responsibility for anthropogenic climate change, see *infra.*

[40] See Honkonen T., *The Common but Differentiated Responsability Principle in Multilateral Environmental Agreements*, Kluwer, Alphen aan den Rijn, 2009, 35 ff.

[41] Advisory Opinion, para. 207.

[42] Advisory Opinion, paras 201 and 237.

of climate change affect the ocean, such as sea levels rise, the increase in ocean acidification and sea surface temperature. On the other hand, the ocean plays an important role in combating climate change [43].

The "*Third IMO* [44] *GHG Study 2014*" [45] estimated that greenhouse gases emissions from international shipping represented about 2.2% of anthropogenic CO2 emissions in 2012 and could grow between 50% and 250% by 2050.

In 2018, IMO adopted an "*Initial IMO Strategy on Reduction of GHG Emissions from Ships*" [46], drawing up a vision which confirms the international community's commitment to reducing GHG emissions from the global shipping and to gradually eliminating them. This Strategy has set the objective of reducing emissions by 50% compared to 2008 levels by 2050.

In another study, named "*Fourth IMO Greenhouse Gas Study 2020*" [47], IMO reported that, in the last twenty years, there had been a notable increase (62%) of anthropogenic GHG emissions derived from international shipping, due to the growth of global maritime trade. By mid-century, significant increases (190-130%) in GHG emissions from the maritime industry are expected, compared to 2008 levels.

The International Maritime Organization then adopted the "*2023 IMO Strategy on Reduction of GHG Emissions from Ships*" [48]. Considering that approximately 99% of ships use conventional fuels, derived from fossil sources which emit carbon dioxide (CO_2) [49], the IMO Strategy aims to reduce GHG emissions from vessels to net-zero by or around 2050, through a decarbonisation process [50].

[43] According to the "*2019 IPCC Report*", entitled "*Special Report on the Ocean and Cryosphere in a Changing Climate*", 78, the oceans serve as a "*fundamental climate regulator*".

[44] As is well known, the IMO (International Maritime Organization) is a specialized UN agency with a mission to promote safe, secure, environmentally sound, efficient and sustainable shipping, through cooperation between States. See M.H. Nordquist, J.N. Moore (eds.), *Current Maritime Issues and the International Maritime Organization*, Kluwer, The Hague, Boston, London, 1999, 105 ff.

[45] "*Third IMO GHG Study 2014 - Executive Summary and Final Report*", published in 2015.

[46] "*Initial IMO Strategy on Reduction of GHG Emissions from Ships*", Annex 11 to the Marine Environment Protection Committee Resolution MEPC.304(72), adopted on 13 April 2018, 4 ff.

[47] "*Fourth IMO Greenhouse Gas Study 20",* 5 ff.

[48] "*IMO Strategy on Reduction of GHG Emissions from Ships*", Resolution MEPC.377(80) of 7 July 2023. See Advisory Opinion, para. 80.

[49] See "*2023 UNCTAD Review of Maritime Transport*", 68.

[50] In the above-mentioned "*Climate Change Glossary*", adopted by BIMCO, the word «decarbonization» is defined as "*an overarching term that describes acts, pathways, or processes, by which*

The economic and environmental measures proposed by IMO [51] "*should effectively promote the energy transition of shipping and provide the world fleet with a needed incentive while contributing to a level playing field and a just and equitable transition*" [52].

In the light of these very important IMO documents, considering that the ocean is the Earth's largest natural carbon sink and absorbs more than 90% of the excess heat generated in the global climate system, ITLOS stressed the objective of limiting the global temperature rise to 1.5°C above pre-industrial levels, in the interpretation and application of the UNCLOS.

Attention should now be focused on States' obligation to take "all necessary measures" to prevent, reduce, and control GHG emissions in accordance to the provisions contained in Part XII of the Law of the Sea Convention.

Firstly, a general obligation to protect and preserve the marine environment is required under Article 192.

In addition, Article 193 states that natural resources have to be exercised in accordance with the same obligation.

More detailed guidance on the content of this obligation can be found in the following Article 194, paragraph 1, already mentioned above, that requires States Parties to "*take, individually or jointly as appropriate, all measures consistent with this Convention that are necessary to prevent, reduce, and control pollution of the marine environment from any source*".

According to Article 194, paragraph 2: "*States shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with this Convention*".

countries, individuals or other entities aim to reduce and ultimately eliminate (GH) emissions from human activities". See also "*2018 Global Warming of 1.5 ºC, Special Report",* adopted by IPCC. On this subject see G. Spera, *La "decarbonization" nel settore dello "shipping": recenti sviluppi,* in *Riv. dir. nav.,* 2/2023, 939 ff.; M. Lopez De Gonzalo*, Nuovi rischi e nuove clausole del trasporto marittimo. Parte II: transizione energetica e decarbonizzazione,* in *Dir. comm. internaz.,* 4/2023, 871 ff. See para. 3.3.4 of "*IMO Strategy on Reduction of GHG Emissions from Ships*".

[51] S. Polepalli, *The Advisory Opinion and the Normative Future of IMO GHG Reduction Measures*, in *OpinioJuris*, 22 July 2024.

[52] Resolution MEPC.377(80), para. 4.5, entitled "*2023 IMO Strategy On Reduction Of GHG Emissions From Ships",* adopted on 7 July 2023.

This paragraph prescribes the obligation of a State to take all necessary measures to prevent environment damage to another State caused by an activity under its jurisdiction or control. This provision refers to the notion of "transboundary environmental damage" [53], caused by an activity (such as maritime transport) conducted by one State which has serious adverse effects in the territory of another or in global common areas. The State that has suffered damage may then claim compensation as an injured country.

Measures must include those designed to minimize, to the fullest possible extent, the *"release of toxic, harmful or noxious substances from land-based sources*" and to prevent, reduce and control pollution of the marine environment from or through the atmosphere (Article 194, paragraph 3).

Article 194, paragraph 5, of UNCLOS specifically pays attention to the obligation for States to prevent marine pollution in relation to *"rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life"*, such as coral reefs.

In other words, while Article 192 provides for the general obligation of States to protect and preserve the marine environment, Article 194 further focuses on specific obligations for States to adopt, individually or jointly as appropriate, all practical measures, consistent with UNCLOS, that are necessary to prevent, reduce and control pollution of the marine environment.

Notably, States are required by Article 194 of UNCLOS to take all necessary measures to reduce their GHG emissions, in line with the best available science, to the fullest possible extent, in accordance with other relevant international legal obligations.

ITLOS considered that the scope and content of Articles 192, 193 and 194 of UNCLOS must be rendered full effective.

In its view, these States' obligations "*are formulated in such a way as to prescribe not only the required conduct of States but also the intended objective or result of such conduct*" [54].

Specifically, regarding the content of necessary measures to be taken under Article 194, paragraph 1, of the Montego Bay Convention, the Tribunal

[53] See M. Hinteregger, *Transboundary Environmental Damage and the Law of the European Union*, in *Harmony and Dissonance in International Law,* 2011, Vol. 105, 433 ff.; H. Xue, *Transboundary Damage in International Law,* Cambridge University Press, Cambridge, 2003.

[54] Advisory Opinion, para. 238.

considered two elements: (i) temperature threshold and (ii) timeline for emission pathways [55].

As regards the global temperature goal, the Tribunal considered the 1.5°C temperature threshold, and failed to take into account the Paris Agreement objective of limiting warming to "well below 2°C", laid down in Article 2.1(a): "*holding increase in the global average temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels*" [56].

In order to combat climate change impacts, Article 4, paragraph 2, of the same Agreement requires each Party to prepare, communicate and maintain successive Nationally Determined Contributions (NDCs) [57].

A country's NDC indicates actions that each State is committed to reducing greenhouse gas emissions in order to meet the global goal of limiting temperature rise to 1.5°C.

Consequently, States shall adopt domestic mitigation measures, with the aim of achieving the objectives of such contributions.

The Tribunal concluded that the "*Paris Agreement does not require the Parties to reduce GHG emissions to any specific level according to a mandatory timeline but leaves each Party free to determine its own national contributions in this regard*" [58].

Well, although is true that not all the commitments made by States Parties are legal obligations of result, it is important to emphasize that the Paris Agreement does not follow a "*laissez-faire*" approach. In fact, it creates international legal obligations to develop, implement, and regularly reinforce actions, although it leaves governments free to define their environmental policy.

According to the Advisory Opinion, States have the obligation to take all necessary measures to prevent, reduce and control marine pollution from anthropogenic GHG emissions not only in respect to areas under their jurisdiction or control, but also in a transboundary context [59].

[55] Advisory Opinion paras 201 and 222.

[56] Advisory Opinion, para. 200.

[57] NDCs are communicated to the UNFCCC Secretariat every five years. See NORDIC COUNCIL OF MINISTERS (ed.), *Mitigation & Adaptation Synergies in the NDCs*, København (Danmark), 2017.

[58] Advisory Opinion, para. 222.

[59] S. Árnadóttir, *Climate Change and Maritime Boundaries*, Cambridge, 2022, 3 ff.

In fact, the current Opinion deals with the scope of Article 195 of UNCLOS that requires all States Parties to implement the obligation to take measures to prevent, reduce and control pollution of the marine environment, acting *"so as not to transfer, directly or indirectly, damage or hazards from one area to another or transform one type of pollution into another"* [60].

The general principle embodied in this article specifies that all States, when adopt rules for the protection of the marine environment, have a duty not to transfer pollution from one type to another or from one area to another.

Under the ITLOS Opinion, "*marine geoengineering would be contrary to article 195 if it has the consequence of transforming one type of pollution into another*" [61]. It is defined as "*a deliberate intervention in the marine environment to manipulate natural processes, including to counteract anthropogenic climate change and/or its impacts, and that has the potential to result in deleterious effects, especially where those effects may be widespread, long-lasting or severe*" [62]. In other words, it refers to attempts to manipulate the Earth's oceans to counteract the effects of climate change.

For instance, sewage can be a land-based source when discharged from an ocean outfall, but may be transformed into a sea-based source if it is then treated and dumped at sea by a ship.

Article 195 not only covers the direct or indirect transformation of one type of water pollution into another, but also the transformation of ship emissions into discharges from vessels [63].

The Tribunal clarified that the state obligation to adopt all necessary measures can vary according to "*relevant international rules and standards*", despite the fact that international and national courts had paid relatively little attention to the interactions between international climate law and international law of the sea.

[60] Advisory Opinion, para. 231.

[61] Advisory Opinion, para. 231.

[62] IMO Resolution LP.4(8), on the amendment to the London Protocol to regulate the placement of matter for ocean fertilization and other marine geoengineering activities, adopted on 18 October 2013 during the eighth Meeting of Contracting Parties to the 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972.

[63] See A. Proelss, V. Schatz, *Regulating Vessel Discharges on the International and EU Level,* Brill, Leiden, 2021, 8.

According to the obligations arising from Part XII (Articles 192-237) of the Montego Bay Convention, ITLOS emphasized that States have the specific obligations to adopt "laws and regulations" to prevent, reduce and control marine pollution from GHG anthropogenic emissions that come from land-based sources [64] and from or through the atmosphere, in line with internationally agreed rules, standards and recommended practices [65].

Particularly, the Tribunal stressed that State Parties to UNCLOS have the obligation to take "*all necessary measures"* not only *"to prevent, reduce, and control marine pollution from anthropogenic GHG emissions*", but also "*to endeavor to harmonize their policies in this connection*" [66].

Therefore, special efforts should also be made by States to harmonize their policies in this context, based on the most relevant rules and standard of international law (*i.e.* «external rules»).

In fact, according to the methodological approach followed by the ITLOS Opinion, external rules must be taken into account and integrated into the interpretation of UNCLOS.

The Tribunal clearly stated that those rules are not "*lex specialis*" compared to UNCLOS, because they are independent. However, they play a very important role in explaining the meaning of the terms of the Montego Bay Convention.

This approach is in line with Article 293 [67] of UNCLOS, according to which both this Convention and external rules should be interpreted consistently.

In the ITLOS view, the effort of coordination and harmonization between these sources is very important for ensuring the "*living instrument*" nature of UNCLOS [68].

In other terms, the request to the Tribunal for an integrated interpretation is aimed to enhance the harmonization and coordination between different international instruments such as treaties and customary rules or general principles of law, as well as to address the fragmentation of international

[64] See Articles 194, 207 and 213 of UNCLOS.

[65] Article 212 of UNCLOS.

[66] Advisory Opinion, para. 243.

[67] Article 293 (Applicable law) "1. *A court or tribunal having jurisdiction under this section shall apply this Convention and other rules of international law not incompatible with this Convention".*

[68] Advisory Opinion, para. 130.

law [69], that creates conflicts between incompatible rules and regimes, principles and institutional practices.

On this last aspect, the Tribunal remembered the "*2006 Report of the Study Group of the International Law Commission* (ILC)" [70] on the fragmentation [71] of international law, due to an uncoordinated expansion of its scope [72].

The present Report concluded that, according to the principle of harmonization, it *"is a generally accepted principle that when several norms bear on a single issue they should, to the extent possible, be interpreted so as to give rise to a single set of compatible obligations*" [73].

In this context, the Tribunal identified three situations in which relationship between UNCLOS and external rules can been established: (i) through UNCLOS provisions recalling expressly to external rules, (ii) by means of Article 237 of the Montego Bay Convention, which reflects the need for consistency and mutual integration of the applicable rules in this area, and (iii) by virtue of article 31.3(c) [74] of the Vienna Convention on the Law of Treaties (VCLT) [75],

[69] On this topic, see N. Lanzoni, *Il tribunale internazionale del diritto del mare tra sviluppo e frammentazione del diritto internazionale*, in *Comunità internaz.*, 4/2016, 581 ff.

[70] Report of the Study Group of the International Law Commisssion (ILC) of 18 July 2006, Document A/CN.4/L.702, entitled "*Fragmentation of International Law: difficulties arising from the diversification and expansion of International Law*". The ILC was established in 1947 by the UN General Assembly to undertake the mandate under Article 13 (1) (*a*) of the Charter of the United Nations (San Francisco,1945) to "*initiate studies and make recommendations for the purpose of [...] encouraging the progressive development of international law and its codification*".

[71] The ILC argued that is a "*well-known paradox of globalization that while it has led to increasing uniformization of social life around the world, it has also led to its increasing fragmentation"* of the international social world, due to "*the emergence of specialized and (relatively) autonomous rules or rule-complexes, legal institutions and spheres of legal practice".* See K. Wellens, R. Huesa Vinaixa (eds.), *L'influence des sources sur l'unité et la fragmentation du droit international,* Bruylant, Brussels, 2006.

[72] In the present document, the ILC noted that, in the past half-century, the scope of international law has increased enormously: from trade to environmental protection, from human rights to scientific and technological cooperation.

[73] Article 14.1.(4) of the above-mentioned Report on *"Fragmentation of the International Law"* (2006).

[74] For a commentary of Article 31.3(c), see V. P. Tzevelekos, *The Use of Article 31(3)(c) of the VCLT in the Case Law of the ECtHR: An Effective Anti-Fragmentation Tool or a Selective Loophole for the Reinforcement of Human Rights Teleology?,* in *Michigan Journal of International Law,* Vol. 31, Issue 3, 2010, 621 ff.

[75] Vienna Convention on the Law of Treaties 1969, adopted on 23 May 1969 and entered into force on 27 January 1980. See – *inter alia* – M. E. Villiger, *Commentary on the 1969 Vienna*

which requires that must be paid attention to "*any relevant rules of international law applicable in the relations between the parties*".

As for the first situation, the current Advisory Opinion gave the Tribunal the opportunity for the first time to deal with the role of Article 237 [76] of UNCLOS, that regulates relationship between UNCLOS (Part XII) and other treaties on marine environment protection.

In this sense, the Tribunal framed the international agreements and treaties on the combating of climate change as main external rules.

Firstly, the Tribunal considered the above mentioned UN Framework Convention on Climate Change (UNFCCC) "*as the primary legal instruments addressing the global problem of climate change*" [77].

In addition, the Kyoto Protocol [78], the Montreal Protocol on Substances that Deplete the Ozone Layer [79] (including its Kigali Amendment) [80] and the Convention on Biological Diversity (CBD) are also included among relevant

Convention on the Law of Treaties, Martinus Nijhoff Publishers, Leiden, Boston, 2009, 415 ff.

[76] See C. Redgwell, *Treaty Evolution, Adaptation and Change: Is the LOSC 'Enough' to Address Climate Change Impacts on the Marine Environment?*, in *International Journal of Marine and Coastal Law*, 2019, 440 ff. The Author excluded the applicability of Article 237 UNCLOS to the UN climate change regime. See also N. Chan, *Linking ocean and climate change governance*, WIREs Climate Change, Wiley, Hoboken, 2021.

[77] Advisory Opinion, para. 214.

[78] The Kyoto Protocol is a very important international agreement, adopted on 11 December 1997 and entered into force on 16 February 2005, aimed to reduce carbon dioxide emissions and the presence of greenhouse gases. It implemented the objective of the UNFCCC to mitigate global warming by reducing greenhouse gas concentrations in the atmosphere. For a commentary see, *ex multis,* S. Oberthür, H.E. Ott, *The Kyoto Protocol. International Climate Policy for the 21st Century,* Springer, Berlin, Heidelberg, 1999, 93 ff.; M. Grubb, C. Vrolijk, D. Brack, *The Kyoto Protocol: A Guide and Assessment*, Energy and Environmental Programme, Royal Institute of International Affairs, London, 1999, 115 ff.; G. Tellarini, *Trasporto aereo e ambiente: inquinamento aereo acustico e gassoso,* in *Riv. dir. nav.*, 2/2018, 585 ff.

[79] The Montreal Protocol is a global agreement, signed on 16 September 1987 and entered into force in 1989. It was designed to protect the stratospheric ozone layer by phasing out the production and consumption of ozone-depleting substances (ODS). See S. MANSERVISI, *Le Convenzioni internazionali sul clima e il ruolo dell'agricoltura*, in *Agricoltura Istituzioni Mercati*, 2/2016, 22 ff.; D. MARRANI, *Trasferimento tecnologico e assistenza finanziaria nel regime internazionale sul clima*, in *Riv. coop. giur. internaz.*, 64/2020, 184 ff.

[80] The 2016 Kigali Amendment to the Montreal Protocol, agreed by the Twenty-Eighth Meeting of the Parties (Kigali, 10-15 October 2016), is an international agreement adopted with the aim to gradually reduce the consumption and production of hydrofluorocarbons (HFCs)

international sources.

In this framework, a crucial role is played by the above mentioned Paris Agreement and its long-term temperature objective set out in Article 2.1(a) [81], as already mentioned.

In order to satisfy the need for harmonization and consistency in international law, the Tribunal also referred to the "*IPCC's 1.5°C Global Warming Report"* [82], that states as follows "*limiting warming to 1.5°C implies reaching net zero CO2 emissions globally around 2050 and concurrent deep reductions in emissions of non-CO2 forcers, particularly methane*" [83].

In addition, ITLOS referred to the *"2023 IPCC AR6 Synthesis Report"* [84] which provides as follows: "*deep, rapid, and sustained GHG emissions reductions, reaching net zero CO2 emissions and including strong emissions reductions of other GHGs, in particular CH4, are necessary to limit warming to 1.5°C […] or less than 2°C […] by the end of century"* [85].

In addition, ITLOS recalled the 27th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP27) [86] which adopted the Sharm el-Sheikh Implementation Plan [87].

[81] See M. Montini, *L'accordo di Parigi sui cambiamenti climatici*, in *Riv. giur. amb*. 4/2015, 517 f.; S. NESPOR, *La lunga marcia per un accordo globale sul clima: dal protocollo di Kyoto all'accordo di Parigi*, in *Riv. trim. dir. pubbl*., 1/2016, 81 ff.; N.S. Reetz, S. Maljea-Dubois, *Collective' state obligation to achive the objective of the Paris Agreement: can it bridge the gap between collective ambition and individual state action?,* in A. Zahar (ed.), *Law of the Paris Agreement*, Edward Eldgar Publishing, Cheltenham, Northampton, 2024, 60 ff.

[82] The "*IPCC's Global Warming of 1.5° Special Report"*, issued in October 2018, is "*a special report devoted to understand the impacts of 1.5°C global warming 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*". In this Report, the IPCC concluded that there is a high risk of a worse outcome if temperature increases exceed 1.5°C above pre-industrial levels (p. 10).

[83] See "*IPCC's Global Warming of 1.5° Special Report"* (2018), 51.

[84] See Advisory Opinion, para. 210. The *"IPCC AR6 Synthesis Report"*, dated 20 March 2023, detailed the devastating consequences of climate change and stressed solutions to avoid risks. It was finalized for the *Sixth Assessment Report,* during the Panel's 58th Session, held in Interlaken (Switzerland) on 13-19 March 2023.

[85] See the above-mentioned "*2023 Synthesis Report*", 68.

[86] Conference of the Parties, held in Sharm el-Sheikh from 6 to 18 November 2022, decisions 1/CP.27 and 1/CMA.4. The subsequent decision 1/CMA.5 "*Outcome of the first global stocktake*", dated 30 November 2023, is also relevant.

[87] Sharm el-Sheikh Implementation Plan, Draft decision -/CP.27. See M. Mazzarella, *L'interesse*

The last document "*recognizes that limiting global warming to 1.5 °C requires rapid, deep and sustained reductions in global greenhouse gas emissions of 43 per cent by 2030 relative to the 2019*" [88], *"also recognizes that this requires accelerated action in this critical decade*" [89], "*reiterates that the impacts of climate change will be much lower at the temperature increase of 1.5 °C compared with 2 °C and resolves to pursue further efforts to limit the temperature increase to 1.5 °C2", "reiterates that the impacts of climate change will be much lower at the temperature increase of 1.5 °C*" [90].

Other main external rules identified by ITLOS are contained in the I973 International Convention for the Prevention of Pollution from Ships, as modified by the Protocol of 1978 [91] (MARPOL 73/78) [92], and its Annex VI ("*Air Pollution & Energy Efficiency*") [93].

The Tribunal also stressed the relevance of other very important treaties, such as the Chicago Convention [94] and, in particular, its Annex

alla tutela del clima e le iniziative internazionali ed europee per contrastare il cambiamento climatico, in *Riv. trim. dir. pubbl.*, 3/2024, 737 ff.

[88] Sharm el-Sheikh Implementation Plan, part IV (Mitigation), point 11, 3.

[89] Decision -/CP.27, Sharm el-Sheikh Implementation Plan, part IV (Mitigation), point 12, 3.

[90] Decision -/CP.27, Sharm el-Sheikh Implementation Plan, part I (Science and urgency), point 4, 2.

[91P] Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973.

[92] The MARPOL Convention was adopted on 2 November 1973. The above-mentioned Protocol of 1978 was adopted in response to an accident chain in 1976-1977. As the 1973 MARPOL Convention had not yet entered into force, the 1978 MARPOL Protocol absorbed the present Convention. The combined instrument entered into force on 2 October 1983. MARPOL currently includes six technical Annexes. Special Areas with strict controls on operational discharges are included in most Annexes, adopted by a number of States Parties (161) reflecting approximately 99% of the gross tonnage of the world's merchant fleet. This Convention continues to be a work in progress to incorporate and implement measures to address GHG emission from internationally plying ships.

[93] In 1997, a Protocol was adopted to amend the Convention and a new Annex VI (*Prevention of Air Pollution from Ship*) was added and entered into force on 19 May 2005. The IMO adopted amendments to Annex VI in 2011 (Resolution MEPC.203(62) of 15 July 2011) and 2021, entered into force in November 2022, with a view to reducing GHG emissions from ships. See F. M. Torresi, *L'annesso Sesto della Convenzione MARPOL: stato della disciplina internazionale uniforme, sviluppi e prospettive*, in *Dir. mar.*, 3/2009, 922 ff.

[94] Convention on International Civil Aviation, establishing the International Civil Aviation Organization (ICAO), signed in Chicago on 7 December 1944 by 52 States. About the role of ICAO in respect of global ocean governance, see G. Rodotheatos, *The Work of the International Civil Aviation*

16 ("*Environmental Protection*") for control of air pollution from aircraft engines.

The Volume IV of Annex 16, entitled "*Carbon Offsetting and Reduction Scheme for International"* (CORSIA) [95] , introduced a global market-based measure designed to offset international aviation CO_2 emissions [96] in order to reduce air pollution. Under this system, airlines and other aircraft operators offset any increase in CO2 emissions above 85% of 2019

Organization in Respect of Global Ocean Governance, in D. J. Attard (gen. ed.), M. Fitzmaurice (ed.) *et al*., *The IMLI Treatise on Global Ocean Governance,* Oxford University Press, Oxford, 2018, Vol. II, 61 ff. For a commentary of the Chicago Convention, see *ex multis* A. Giannini, *La convenzione di Chicago 1944 sull'aviazione civile internazionale*, in *Riv. dir. comm*. 1946, I, 83 ff.; A. Giannini, *La Convenzione di Chicago del 1944 sull'aviazione civile internazionale*, Roma, 1953. See also R. Abeyratne, *Treaty interpretation of the Chicago Convention*, in *Dir. e politica trasp.*, 2/2022, 76

[95] The first edition of ICAO Annex 16, Vol. IV, titled "*Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)*", became effective on 22 October 2018 and applicable on 1 January 2019, while the second edition became effective on 31 July 2023 and applicable on 1 January 2024. Part I of Vol. IV contains definitions, abbreviations and symbols. Part II, Chapter 2, contains standards, recommended practices and guidelines for monitoring, reporting and verification of an aircraft operator's CO2 emissions. Chapter 3 contains standards, recommended practices and guidelines on an aircraft operator's CO2 offsetting requirements that can be reconciled using CORSIA Elegible Emissions Units. All the ICAO Annexes (19 in all) contain both Standards and Recommended Practices (SARPs) (see A. Giannini, *Ancora sugli allegati alla convenzione di Chicago 1944,* in *Rivista aeronautica,* 1952, 883 ff.; Romanelli G., Comenale Pinto M.M., *L'applicazione degli Annessi tecnici alla Convenzione di Chicago*, in *Dir. prat. av. Civ.,* I, 1998, 77). The latter are technical specifications adopted by the Council of ICAO in accordance with Article 38 of the Chicago Convention in order to achieve "*the highest practicable degree of uniformity in regulations, standards, procedures and organization in relation to aircraft, personnel, airways and auxiliary services in all matters in which such uniformity will facilitate and improve air navigation*". A «standard» is defined by ICAO as "*any specification for physical characteristics, configuration, material, performance, personnel or procedure, the uniform application of which is recognized as necessary for the safety or regularity of international air navigation and to which Contracting States will conform in accordance with the Convention*" (see G. De Stefani, *Gli annessi ICAO: in particolare sul dovere degli stati di notificare le discordanze tra i regolamenti interni e gli standards (art. 38 Convenzione di Chicago),* in *Trasp.,* 97/2005, 7). A «recommended practice» is defined as "*any specification for physical characteristics, configuration, material, performance, personnel or procedure, the uniform application of which is recognized as desirable in the interest of safety, regularity or efficiency of international air navigation and to which Contracting States will endeavour to conform in accordance with the Convention*". For these definitions see e.g. Annex 19, *Safety Management*, July 2013, XI.

[96] N. Ladefoged, *Ridurre l'impatto del trasporto aereo sui cambiamenti climatici* in *Riv. giur. amb*., 1/2006, 193 ff.; E. Carpanelli, *Le emissioni di gas a effetto serra derivanti*

levels [97].

3.3 – With reference to the third aspect addressed by the current Advisory Opinion, *i.e.* the state obligation to exercise due diligence, ITLOS highlighted that it is difficult to define "due diligence" in general terms, considering that it is a "*variable concept*" [98] that "*varies depending on the particular circumstances to which an obligation of due diligence applies*" [99].

According to the present Opinion, the due diligence standard may change over time, because of several factors, such as "*scientific and technological information, relevant international rules and standards, the risk of harm and the urgency involved*" [100].

The due diligence standard has to be more "stringent" for the riskiest activities, characterized by the presence of two elements: severity and probability of occurrence of harm [101].

In this context, the Tribunal stressed that obligation to prevent, reduce and control pollution of the marine environment is a "stringent" standard, given "*the high risks of serious and irreversible harm to the marine environment from climate change impacts and ocean acidification*" [102].

ITLOS also explained that the obligation of "due diligence" in relation to the marine environment pollution from excessive anthropogenic GHG emissions requires States to put in place national measures, including legislation, administrative procedures and appriopriate enforcement mechanisms, and to exercise continuous supervision of the proper functioning of this system.

dall'aviazione civile internazionale: il difficile rapporto tra dimensione universale e dimensione regionale, in *Dir. trasp.,* 3/2015, 695 ff.

[97] C. Soncini, *Reduction of emissions and non-discrimination principle: how to combine tax exemptions and circular economy to offset climate crisis*, in *Diritto e processo tributario*, 3/2019, 325 ff.

[98] See the request for Advisory Opinion, submitted to the Seabed Disputes Chamber (established in accordance with Part XI, Section 5, of the UNCLOS Convention and Article 14 of the Statute), entitled "*Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area*", case No. 17. See also the ITLOS' Advisory Opinion of 1 february 2011, in *ITLOS Reports,* 2011, para. 117, 10 ff. In this Opinion, the Tribunal noted that the "*standard of due diligence has to be more severe for the riskier activities*".

[99] Advisory Opinion, para. 239.

[100] Advisory Opinion, para. 239.

[101] Advisory Opinion, para. 239.

[102] Advisory Opinion, para. 399.

The measures to be taken must be "*as far-reaching and efficacious as possible to prevent or reduce the deleterious effects of climate change and ocean acidification on the marine environment*" [103].

Consequently, where "*a State fails to comply with this obligation, international responsibility would be engaged for that State*" [104].

Nonetheless, this Opinion offered flexibility regarding its implementation, based on States' capabilities [105], according to the above mentioned principle of "*common but differentiated responsibilities and respective capabilities*" (CBDR-RC) [106].

We have actually dealt with the latter principle.

In addition, the Tribunal also noted that "*the obligation of due diligence is also closely linked with the precautionary approach*" [107].

The ITLOS remembered that its Seabed Disputes Chamber, in the Advisory Opinion of 2011 [108], stated that the precautionary approach is "*an integral part of the general obligation of due diligence*" [109].

There is no generally accepted definition of the precautionary principle [110].

It enables States, and in particular, decision-makers, to adopt measures even when scientific evidence about an environmental hazard is uncertain.

In any case, according to the ITLOS opinion, this principle should be

[103] Advisory Opinion, para. 399.

[104] Advisory Opinion, para. 223.

[105] Advisory Opinion, paras 241, 243 and 441(3)(c).

[106] Advisory Opinion, paras 229 and 396.

[107] Advisory Opinion, para. 242.

[108] Advisory Opinon of the Seabed Disputes Chamber of ITLOS, delivered on 1 February 2011.

[109] Advisory Opinion on *"Responsibilities and obligations of States with respect to activities in the Area"*, 1 February 2011, cited, para. 131, 10 ff.

[110] See, *inter alia*, D. Freestone, E. Hey, *The Precautionary Principle and International Law: The Challenge of Implementation,* Springer, Leiden, 1996*;* R. Cooney, *The Precautionary Principle in Biodiversity Conservation and Natural Resource Management. An Issues Paper for Policy-makers, Researchers and Practitioners,* IUCN World Conservation Union, Gland, 2004; J. PEEL*, The Precautionary Principle in Practice: Environmental Decision-Making and Scientific Uncertainty,* The Federation Press, Sydney, 2005; E.C. Fisher, J.S. Jones, R. von Schomber (eds,)*, Implementing the Precautionary Principle: Perspectives and Prospects,* Edward Elgar, Cheltenham, 2006; N. de Saledeer (ed.), *Implementing the Precautionary Principle. Approaches from the Nordic Countries, EU and USA,* London, 2007; T. O'Riordan, J. Cameron, *Interpreting the Precautionary Principle,* Routledge, London, 2013.

applied where immediate action from authorities is expected, "*even if scientific evidence as to the probability and severity of harm to the marine environment of such activities were insufficient*" [111].

Consequently, "*States must apply the precautionary approach in their exercise of due diligence to prevent, reduce and control marine pollution from anthropogenic GHG emissions"* [112].

4. – The current Opinion represents a milestone in the development of international maritime law [113], considering that it gave legal recognition to the principle of «*common concern of humankind*» (CCH) [114].

[111] Advisory Opinion, para. 242.

[112] Advisory Opinion, para. 242.

[113] J. Murillo, *Common Concern of Humankind and Its Implications in International Environmental Law,* in *Macquarie Journal of International and Comparative Environmental Law*, 5, 2008, 133; V. Golitsyn, *The Role of Internationa Tribunal for the Law of the Sea (ITLOS) in Global Ocean Governance,* in D. J. Attard (gen. ed.), *The IMLI Treatise on Global Ocean Governance,* cited, Vol. I, 103 ff.; J. Qian, K. Sun, Y.-C. Chang, *The impact of the ITLOS climate change advisory opinion on the development of international law*, in *Marine Policy*, Vol. 170, December 2024, 106 ff.; M. Young, J. Peel, E. Harrould-Kolieb, H.E. J. Felson (eds.), *ITLOS' Climate Opinion: What's its significance?*, MCF Discussion Paper, University of Melboune, July 2024, 3 f.; A. Rocha, *A Small but Important Step: A Bird's-Eye View of the ITLOS' Advisorry Opinion on Climate Change and International Law,* in *Climate Law*, 27 May 2024.

[114] See e.g. F. Biermann, "*Common Concerns of Humankind" and National Sovereignty*, in *Globalism: People, Profits And Progress: Proceedings Of The Thirtieth Annual Conference Of The Canadian Council On International Law*, 2002, 158, 177 f.; J. Brunnée, *Common Interest: Echoes from an Empty Shell? Some Thoughts on Common Interest and International Environmental Law,* 49 *Zeitschrift für ausländisches öffentliches Recht und Völkerrecht,* 2008, 791; D. Shelton, *Common Concern of Humanity*, in *Environmental Law and Policy,* 39/2, 2009, 83; T. Cottier, S. Matteotti-Berkutova, *International Environmental Law and the Evolving Concept of Common Concern of Mankind,* in T. Cottier, O. Nartova, Z. Bigdeli Sadeq, (eds.), *International Trade Regulation and the Mitigation of Climate Change*, Cambridge University Press, Cambridge, 2009, 21 ff.; C. BOWLING, E. Pierson, S. Ratté, *The Common Concern of Humankind: A Potential Framework for a New International Legally Binding Instrument on the Conservation and Sustainable Use of Marine Biological Diversity in the High Seas*, in www.un.org/depts/los/biodiversity/prepcom_files/BowlingPiersonandRatte_Common_Concern.pdf; A. A. Conçado Trindade, *International Law for Humankind: Towards a New* Jus Gentium, 2nd ed., Martinus Nijhoff, Leiden, 2013; T. Cottier, Ph. Aerni, B. Karapınar, S. Matteotti, J. de Sépibus,, A. Shingal, *The Principle of Common Concern and Climate Change*, 52 *Archiv des Völkerrechts (AVR)*, 2014, 293 ff.; N. S. Castillo-Winckels, *Why "Common Concern of Humankind" Should Return to the Work of the International Law Commission on the Atmosphere,* 29 *Georgetown International Environmental Law Review*, 2016, 131 ff.: F. Soltau, *Common Concern of Humankind,* in C. P. Carlane, K. R. Gray, R. G. Tarasofsky (eds.), *The Oxford Handbook of Inter-*

The Tribunal expressed its awareness "*of the fact that climate change is recognized internationally as a common concern of humankind*" [115] since the global climate transformations pose "*an existential threat*" [116] to humanity.

This concept has been recalled in a number of UN General Assembly resolutions and in the preambles to many international conventions, treaties, agreements and conference reports.

Against this background, the common concern of humankind can reasonably be considered as a principle of international law on combating climate change, considering that it provides a framework for approaching global problems.

The 1987 *Brundtland Report* [117] of the World Commission on Environment and Development used these words: *"we are united by a common concern for the planet and the interlocked ecological and economic threats with which its people, institutions, and governments now grapple"* [118].

Therefore, this Report was firstly framed in terms of common concern of mankind, but essentially promoting environmental sustainability based on

national Climate Change Law, Oxford University Press, New York, 2016, 202 ff.; T. Cottier, Z. Ahmad, *The Prospects of Common Concern of Humankind in International Law*, Part I, Cambridge University Press, Cambridge, 2021; C. Bakker, *Protecting the Atmosphere as a 'Global Common Good': Challenges and Constraints in Contemporary International Law*, in M. Iovane, F. Palombino, D. Amoroso, G. Zarra (eds.), *The Protection of General Interest in Contemporary International Law: A Theoretic and Empirical Enquiry*, Oxford University Press, Oxford, 2021, 163 ff.; T. Cottier, *The Emerging Principle of Commom Concern of Humankind and International Trade Regulation,* in TESS (Forum on Trade, Environment & the SDGs), *From Vision to Action on Trade and Sustainability at the WTO*, 7 August 2024.

[115] Advisory Opinion, para. 122.

[116] Advisory Opinion, para. 66.

[117] In 1987 the UN World Commission on Environment and Development (WCED) – chaired by former Norwegian Prime Minister Gro Harlem Brundtland – issued the *Brundtland Report* (also called *Our Common Future*), which introduced and defined the concept of sustainable development and described how it could be achieved. This *Report* is well-known for its definition of «sustainable development» as "*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*". According to this document, sustainable development is based on three fundamental pillars: social, economic and environmental. For more details, see M. K. TOLBA, *The Implications of the "Common Concern of Mankind Concept" on Global Environmental Issues,* 13 *Revista IIDH*, 1991, 237 ff.; F. Pellegrino, *Sviluppo sostenibile dei trasporti marittimi comunitari*, Milan, 2009, 40 ff.; F. Pellegrino (ed.), *Sviluppo sostenibile dei trasporti marittimi nel Mediterraneo,* Naples, 2013, 13 ff.

[118] These are the words of the Chairma's foreword to the Brundtland Report.

the principle of «common heritage of mankind» [119]. Subsequently, the latter principle was expressly recognized by the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage [120]. In fact, Article 1 of this Convention relates to "*common concern to safeguard the intangible cultural heritage of humanity*", defined as the complex of "*practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage*" [121].

Other environmental treaties referred to shared global problems use expressions that prefigure the common concern of humankind [122].

In particular, the 1989 Hague Declaration on the Environment [123], in its preamble, has firstly recognized climate change as a common concern of humankind.

As already mentioned, the preambles of both the UNFCCC and the Paris Agreement recognize "*that climate change is a common concern of humankind*".

It is well known that climate change presents a threat to the life and personal integrity of everyone. The Tribunal added that it "*is also conscious of the deleterious effects climate change has on the marine environment and the devast-*

[119] S. Stec, *Humanitarian Limits to Sovereignty: Common Concern and Common Heritage Approaches to Natural Resources and Environment*, 12 *International Community Law Review*, 2010, 361 ff.

[120] The Convention for the Safeguarding of the Intangible Cultural Heritage is a Treaty, adopted on 17 October 2003 by the UNESCO General Conference, entered into force in 2006. See J. Blake, *Safeguarding Intangible Cultural Heritage: A Practical Interpretation of the 2003 UNESCO Convention,* Elgar, Cheltenham, 2023, 19 ff.

[121] Article 2 of the above-mentioned Convention for the Safeguarding of the Intangible Cultural Heritage, 2003.

[122] P. Cullet, *Water Law in a Globalised World: the Need for a New Conceptual Framework,* in *Journal of Environmental Law,* Vol. 23, No. 2, 2011, 233 ff.; E. Brown Weiss, *The Coming Water Crisis: A Common Concern of Mankind,* in *Transnational Environmental Law*, 2012, 153 ff.

[123] The Hague Declaration was issued by a Conference of heads of state and government, convened in the Hague in March 1989 on the initiative of the Dutch, French, and Norwegian governments. It urged all States to participate in the development of a framework convention on climate change. It required "*a new approach, through the development of new principles of international law including more effective decision-making and enforcement mechanisms*", to address the unprecedented challenge to the atmosphere. For a commentary, see M.G. Melchionni, *Declaration of The Hague*, in *Rivista di Studi Politici Internazionali,* Vol. 56, No. 2 (222), 1989, 305 ff.

ating consequences it has and will continue to have on small island States, considered to be among the most vulnerable to such impacts" [124].

That said, it is interesting to focus attention on the origin and subsequent developments of the principle of "common concern of humankind" at this point.

In 1988, Malta took the first step when petitioning the United Nations General Assembly to include climate change as a topic on its agenda. In doing so, it paid particular attention to what would be later recognized as the climate crisis.

In other words, the 1988 Maltese initiative [125] proposed to consider the conservation of climate as a common heritage of humankind and as a common concern of humankind.

Following up the Maltese proposal, the UN General Assembly Resolution 43/53 (1988) [126] recognized climate change as a common concern of mankind, but also determined that action should be taken to address climate change within a global framework.

In this document the General Assembly highlighted that "*the emerging evidence indicates that continued growth in atmospheric concentrations of 'greenhouse' gases could produce global warming with an eventual rise in sea levels, the effects of which could be disastrous for mankind if timely steps are not taken at all levels*" [127].

The present Resolution stated that climate change is the common concern of mankind, since climate is an essential condition which supports life on Earth, recognizing the conservation of climate as part of the common heritage of humankind and as a common concern of mankind.

The common concern of mankind concept is related to, but distinct from, the principle of the common heritage of mankind [128].

[124] Advisory Opinion, para. 122.

[125] The item is entitled "*Conservation of climate as part of the common heritage of mankind*",

[126] UN General Assembly Resolution A/Res/43/53 on "*Protection of Global Climate for Present and Future Generations of Mankind*", 6th December 1988 (UN Doc A/RES/43/53).

[127] As specified in the third sentence of the Preamble to the UN General Assembly Resolution 43/53 *"Noting with concern that the emerging evidence indicates that continued growth in atmospheric concentrations of 'greenhouse' gases could produce global warming with an eventual rise in sea levels, the effects of which could be disastrous for mankind if timely steps are not taken at all levels".*

[128] D. French, *Common Concern, Common Heritage and Other Global(ising) Cooncepts: Rhetorical Devices, Legal Principles or a Fundamental Challenge?,* in M. J. Bowman, P. J. J. Davies, E. J.

Unlike the second, the first principle is not restricted to areas falling within national jurisdiction. In fact, the concept of common heritage of mankind generally applies to specific geographic areas or resources, while the principle of common concern of humankind applies to specific issues.

Although less examined than the common heritage of mankind concept, the common concern of humankind principle has been used massively by the international community for global environmental problems.

This principle provides incentives to States to enhance collective efforts in combating climate change.

In particular, States have a duty to cooperate to ensure that climate and biological diversity are protected for the benefit of present and future generations.

Therefore, the common concern of humankind concept could involve other environmental concepts, namely: inter-generational and intra-generational equity, international solidarity, sustainable development [129], precautionary principle, common but differentiated responsibilities[130] and respective capabilities, shared decision making and accountability [131], benefit and burden sharing through financial cooperation [132] etc.

The preamble to the UNFCCC clearly states: "*Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity*".

Goodwin (eds.), *Research Handbook on Biodiversity and Law*, Edward Elgar, Cheltenham, 2016, 334 ff.

[129] L. S. Horn, *Globalisation, sustainable development and the common concern of humankind,* in *Macquarie Law Journal,* 2007, 53 ff.

[130] C. Bowling, E. Pierson, S. Ratté, *The Common Concern of Humankind: A Potential Framework for a New International Legally Binding Instrument on the Conservation and Sustainable Use of Marine Biological Diversity in the High Seas,* cited, 12.

[131] See T. Jewell, J. Steele (eds.), *Law in Environmental Decision-Making. National, European and International Perspectives,* Clarendon Press, Oxford, 1998, 142; T. Gieseke, *Collaborative Environmental Governance Frameworks: A Practical Guide,* Taylor & Francis Group, Boca Raton, 2020, Section I, Chapter 4.

[132] C. Bowling, E. Pierson, S. Ratté, *The Common Concern of Humankind: A Potential Framework for a New International Legally Binding Instrument on the Conservation and Sustainable Use of Marine Biological Diversity in the High Seas,* cited, 11 f.

This provision stresses the impact of state obligation relating climate change on human rights [133], in the sense that failure to comply with the present obligation is a violation of human rights, such as the right to health [134].

The common concern of humankind concept obliges States to cooperate with each other in solving common problems which can not be solved independently.

It was introduced as an environmental concept in response to international actions aimed to counteract the greenhouse effects, given its nature as a perfect instrument for the protection of the Earth's climate.

5. – The present Advisory Opinion, although non-binding, has significant global implications since 170 States around the world are Parties to the Convention of the Law of the Sea.

In addition, States not Parties to UNCLOS (*e.g.* the United States) recognize many of its provisions as part of customary international law.

Therefore, the applicability of the current Tribunal's Advisory Opinion to these countries may be an interesting legal development in the near future.

This decision and the principles enshrined therein are also relevant outside the scope of UNCLOS and other international treaties and agreements in force.

[133] For detailed discussions, see G. Handl, *Human Rights and Protection of the Environment: A Mildly "Revisionist" Vieu,* in A. A. C. Trindade (ed.), *Human Rights, Sustainable Development and the Environment*, 1992, 117, 123; A. E. Boyle, *The Role of International Human Rights Law in the Protection of the Environment*, in A. E. Boyle, M. R. Anderson (eds.), *Human Rights Approaches to Environmental Protection*, Clarendon Press, Oxford, 1996, 43; L. Horn, *The Implications of the Concept of Common Concern of a Human Kind on a Human Right to a Healthy Environment*, in *Macquarie Journal of International and Comparative Environmental Law*, 10, 2004, 233; T. Cottier, Z. Ahmad, *The Prospects of Common Concern of Humankind in International Law*, cited, 19 f.

[134] On this subject, see UN General Assembly Report A/77/226 of 26 July 2022, entitled "*Promotion and protection of human rights in the context of climate change mitigation, loss and damage and participation",* a note by the UN Secretary-General, Seventy-seventh session, Item 69. See F. Garelli, *The report on the promotion and protection of human rights in the context of climate change. A pragmatic analysis*, in *federalismi.it* 19/2023, 207 ff.; K. Woods, *The State of Play and the Road Ahead: The Environment and Human Rights,* in D. Akande, J. Kuosmanen, H. McDermott, D. Roser (eds.), *Human Rights and 21st Century Challenges: Poverty, Conflict, and the Environment,* Oxford University Press, Oxford, 2020, Chapter 13; L. Del Corona, *Potenzialità e limiti della "prospettiva dei diritti umani" nel contenzioso climatico*, in *Notizie di Politeia,* 153/2024, 102 ff.; C. Ragni. *Cambiamento climatico e diritti umani nella prospettiva del diritto internazionale*, in *Notizie di Politeia*, 153/2024, 110 ff.

In particular, the possible application of the «common concern of humankind» principle as a framework for a new internationally binding instrument for the conservation and sustainable use of marine biodiversity in States under UNCLOS, has been effectively discussed in the current Opinion.

Indeed, it also constitutes a development of the European Court of Human Rights judgment in the above-mentioned *KlimaSeniorinnen* case.

As mentioned above, the European Court found that Article 8 of ECHR implicitly requires "*that each Contracting State undertakes measures for the substantial and progressive reduction of their respective GHG emission levels, with a view to reaching net neutrality within, in principle, the next three decades"*.

In this case the Strasbourg Court ruled that Article 8 [135] of the Rome Convention includes a positive obligation on States to provide effective protection "*from the serious adverse effects of climate change on lives, health, well-being and quality of life*".

According to this European judgment, the primary duty of each Member State is to take appropriate measures to mitigate the potentially irreversible effects of climate change, which may adversely interfere with the enjoyment of human rights. This protection requires that the provisions of the European Convention on Human Rights be interpreted and applied in such a way as to ensure their practical and effective implementation.

Consequently, this Court concluded that the Swiss Government failed to comply with its duties ("positive obligations") concerning climate change [136].

[135] Article 8.2 ECHR: "*There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others".*

[136] In this judgement it is stated as follows: *"There had been critical gaps in the process of putting in place the relevant domestic regulatory framework, including a failure by the Swiss authorities to quantify, through a carbon budget or otherwise, national greenhouse gas (GHG) emissions limitations. Switzerland had also failed to meet its past GHG emission reduction targets. While recognising that national authorities enjoy wide discretion in relation to implementation of legislation and measures, the Court held, on the basis of the material before it, that the Swiss authorities had not acted in time and in an appropriate way to devise, develop and implement relevant legislation and measures in this case*". In other words, the Court found that the Swiss authorities had failed to implement a domestic regulatory framework, including a failure to quantify national greenhouse gas emissions limitations and to meet past greenhouse gas emission reduction targets. See R. Pisillo Mazzeschi, *Diritti umani e cambiamento climatico: brevi note sulla sentenza KlimaSeniorinnen della Corte di Strasburgo*, in *Diritti umani e diritto internazionale,* 2/2024, 383 ff.

Actually, the scope of this ruling is restricted to the European territory.

In a global context, the ITLOS's Advisory Opinion is very important being the first decision on climate change adopted by an international court or tribunal[137].

As already mentioned, in the next few years it will be followed by the opinions of the International Court of Justice and the Inter-American Court of Human Rights. Both international courts can benefit from the content of the ITLOS judgment and from the growing consensus on the fact that States have legal obligations to adopt all necessary measures to combat climate change.

[137] S. Dominelli, *"Einmal ist keinmal". L'insostenibile leggerezza degli obblighi di diritto internazionale in tema di "climate change mitigation" nella prospettiva di una proliferazione delle azioni giudiziarie pubbliche e private*, in *Riv. giur. amb.* 3/2023, 899 ff.

Abstract

L'articolo esamina il Parere consultivo (n. 31 del 21 maggio 2024) del Tribunale internazionale del mare (ITLOS), richiesto dalla Commissione dei piccoli Stati insulari in materia di cambiamento climatico e diritto internazionale (COSIS). Tale provvedimento si occupa degli obblighi di protezione ambientale degli Stati contraenti della Convenzione sul diritto del mare del 1982 (UNCLOS) (Part XII).
Il Parere dell'ITLOS è il primo emesso da un tribunale internazionale in tema di cambiamento climatico, nell'attesa che si esprimano la Corte interamericana dei diritti dell'uomo e la Corte internazionale di Giustizia.
Il contributo si incentra sugli aspetti fondamentali del Parere, quali: la giurisdizione del Tribunale di Amburgo e la sua competenza ad emanare un parere consultivo sul cambiamento climatico; la definizione di inquinamento marino ai sensi dell'UNCLOS; la nozione di misure necessarie in materia di prevenzione, riduzione e controllo dell'inquinamento ambientale marino derivante dai cambiamenti climatici; l'obbligo per gli Stati di esercitare una rigorosa "dovuta diligenza"; nonché – in particolare – l'espressa qualificazione del cambiamento climatico come un "interesse comune per il genere umano".

This article examines the Advisory Opinion (No. n. 31 of 21 May 2024) of the International Tribunal for the Law of the Sea (ITLOS), requested by the Small Island States on Climate Change and International Law Commission (COSIS). This decision deals with environmental protection obligations of the States Parties to the 1982 Convention on the Law of the Sea (UNCLOS) (Part XII).
This Opinion is the first issued by an international court/tribunal in the field of climate change, while both the advisory-opinion procedures before the Inter-American Court of Human Rights and the International Court of Justice are still pending.
This article deals with the pivotal aspects of the Opinion, such as the jurisdiction of the Hamburg Tribunal and its competence to issue an advisory opinion on climate change; the definition of marine pollution under UNCLOS; the concept of necessary measures for the prevention, reduction and control of marine environmental pollution resulting from climate change; the obligation on States to exercise "stringent due diligence"; and – in particular – the express legal qualification of climate change as a common concern of humankind.