



The ITLOS Advisory Opinion on States' obligations in relation to climate change and the marine environment

Implications for the global shipping and aviation sectors | June 2024

Legal Briefing for Policymakers



Executive Summary

On 21 May 2024, the International Tribunal for the Law of the Sea (**ITLOS** or **Tribunal**) issued its advisory opinion in Case No. 31 (**Advisory Opinion**), clarifying States' obligations under the United Nations Convention on the Law of the Sea (**UNCLOS**) to tackle the climate crisis and protect the marine environment from climate harm caused by greenhouse gas (**GHG**) emissions.¹

This briefing outlines key legal findings from the Advisory Opinion, and its implications for the global shipping and aviation sectors, which account for 2.89% of global GHG emissions and 2.5% of annual global CO₂ emissions (and 4% of all global warming) respectively.²

This briefing sets out:

- (i) Recommendations for policymakers relating to the aviation and shipping sectors;
- (ii) A summary of the key legal findings of the Advisory Opinion; and
- (iii) A detailed legal analysis of the Advisory Opinion and its implications for the international shipping and aviation sectors.

Recommendations for Policymakers

Based on the legal analysis set out below, our key policy recommendations to comply with States' international legal obligations under UNCLOS are as follows:

1. **States should adopt domestic legislation and regulation to address the climate impacts from global shipping and aviation.** The measures States need to take to comply with the legal obligations under UNCLOS are to be determined objectively, taking into account in particular the best available science and the 1.5°C pathway. ITLOS was clear that these obligations aren't met simply by participating in global efforts – domestic action needs to be taken too. As IMO and ICAO rules and initiatives don't put the sectors on a 1.5°C pathway,³ States must introduce domestic legislation that goes beyond those rules and initiatives in order to comply with their legal obligations under UNCLOS.
2. **States need to take all necessary measures to prevent, reduce and control marine pollution caused by GHG emissions from "any source", including shipping and aviation.** To meet this requirement, States should include international shipping and aviation in their Nationally Determined Contributions (**NDCs**), a primary mechanism under the Paris Agreement. Yet most countries don't include these sectors in their current NDCs. The third generation of NDCs, which should be published by 2025, provides the opportunity to correct this anomaly, helping to drive the legislation and regulation required to meet States' legal obligations to address GHG emissions from these sectors under UNCLOS.

¹ The Advisory Opinion is available here:

<https://www.itlos.org/fileadmin/itlos/documents/cases/31/Advisory_Opinion/C31_Adv_Op_21.05.2024_orig.pdf> accessed 8 July 2024.

² Jasper Faber and others, *Fourth IMO GHG Study 2020* (IMO 2020) 112 <<https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/Fourth%20IMO%20GHG%20Study%202020%20-%20Full%20Report%20and%20annexes.pdf>> accessed 8 July 2024; D.S. Lee and others, 'The contribution of global aviation to anthropogenic climate forcing for 2000 to 2018' (2021) 244(117834) *Atmospheric Environment* 1, 4; Milan Klöwer and others, 'Quantifying aviation's contribution to global warming' (2021) 16(104027) *Environmental Research Letters* 1, 4.

³ Bryan Comer and Francielle Carvalho, 'IMO's newly revised GHG strategy: what it means for shipping and the Paris Agreement' (The International Clean Council on Transportation (**ICCT**), 7 July 2023) <https://theicct.org/marine-imo-updated-ghg-strategy-jul23/> accessed 8 July 2024; Shraeya Mithal and Dan Rutherford, *ICAO's 2050 net-zero CO₂ goal for international aviation* (ICCT 2023) 3 <<https://theicct.org/wp-content/uploads/2022/12/global-aviation-ICAO-net-zero-goal-jan23.pdf>> accessed 8 July 2024.

3. **States should cooperate to increase ambition and action at the International Maritime Organization (IMO) and the International Civil Aviation Organization (ICAO).** In addition to domestic action, States should continue to work through the IMO and ICAO to align global efforts with a 1.5°C pathway and to make every effort in good faith to establish ambitious international rules to tackle the climate impacts from the shipping and aviation industries. For example:
 - **The 2023 IMO Strategy on Reduction of GHG Emissions from Ships (Revised GHG Strategy)⁴ should be revised to be 1.5°C aligned.** To ensure any adopted measures fully align with the Advisory Opinion, the Revised GHG Strategy should also be revised in line with the goals of the Paris Agreement at the next revision scheduled for 2028.
 - **The IMO's "basket of mid-term measures" should be 1.5°C aligned.** The IMO is currently discussing the adoption of a "basket of mid-term measures" to meet the emissions reductions ambition of the Revised GHG Strategy. These are due to be adopted in 2025, and will include a technical element namely a goal-based marine fuel standard regulating the phased reduction of the marine fuel's GHG intensity, and an economic element, on the basis of a maritime GHG emissions pricing mechanism. A failure to make these stringent enough will make it harder for IMO Member States to meet their legal obligations under UNCLOS.
 - **ICAO policies should be immediately updated to be 1.5°C aligned.** ICAO's long-term aspiration goal needs to align with a 1.5°C pathway and timeline, and in-sector measures and interim targets should be adopted to ensure that the goal is achievable and met.⁵
4. **Developed States should provide financial assistance to (in particular, climate vulnerable) developing States.** The Tribunal placed a high emphasis on supporting (in particular, climate vulnerable) developing States during the transition, including through financial assistance and by granting them preferential treatment in funding from international organisations. Currently there is a proposal for an "economic measure" as part of the IMO discussions which presents an opportunity for States to provide transition support to developing and vulnerable countries. ICAO should consider encouraging countries to implement ticket, fuel or other pricing systems for aviation with a proportion of the revenues used to support climate vulnerable States.

Key legal findings

Key legal findings of the Advisory Opinion include:

- Human-caused GHG emissions constitute "marine pollution" under UNCLOS, engaging numerous legal obligations for States.
- States need to take "all necessary measures" to prevent, reduce and control marine pollution from "any source" under article 194(1) UNCLOS. That obligation cannot be discharged exclusively through participating in global efforts to tackle the climate crisis – States are also required to take individual (domestic) actions as appropriate.
- What constitutes "all necessary measures" must be determined objectively, taking various factors into account, including the best available science, which plays a "crucial role", as well as the 1.5°C temperature goal and the timeline for emission pathways to achieve that goal.
- While all States must make climate change mitigation efforts, the scope of these obligations differ according to available means and capabilities – i.e., developed States must do more, both to reduce

⁴ Resolution MEPC.377(80), '2023 IMO Strategy on Reduction of GHG Emissions from Ships' (adopted 07 July 2023).

⁵ Resolution A41-21, 'Consolidated statement of continuing ICAO policies and practices related to environmental protection – Climate change' (adopted 7 October 2023).

their emissions and to support developing States in their transition. However, this should not be used as an excuse to postpone or even claim exemption from the need to take all necessary measures.

- Obligations under UNCLOS are not necessarily satisfied by simply complying with the Paris Agreement.
- The nature of the obligation under article 194(1) is one of due diligence⁶ with a stringent standard, given the high risks of serious and irreversible harm to the marine environment from GHG emissions.
- States must also take all necessary measures to ensure that GHG emissions under their jurisdiction or control do not cause damage to other States and their environment – and the standard of due diligence for this obligation is even more stringent. Jurisdiction or control does not encompass just a State's territory but also areas in which a State can exercise competence or authority – including, for example, its exclusive economic zone and continental shelf. It applies to activities carried out by both public and private actors.
- The obligation to take all necessary measures under article 194 is complemented and elaborated upon by specific obligations that apply to particular sources of pollution, including shipping and aviation. These specific obligations include ensuring domestic legislation takes into account internationally agreed rules and standards and – for shipping – domestic legislation being at least as effective as IMO rules. However, ITLOS stressed that this is a "minimum threshold" that national legislation should meet; in fact, States may adopt more stringent laws and regulations.
- A failure to comply with the obligation to take all necessary measures to mitigate GHG emissions under the control of a State, could result in the State being in breach of its obligations under international law, leading to potential remedies such as compensation for those harmed.

Legal Analysis

An existential threat

The Advisory Opinion, which centered around the best available science, outlined the harmful effects anthropogenic GHG emissions have for our ocean, with disastrous repercussions for the entire climate system and vulnerable communities around the world.

ITLOS referred to the authoritative assessments of the scientific knowledge on climate change produced by the Intergovernmental Panel on Climate Change (IPCC),⁷ noting that human activities have unequivocally caused global warming, resulting in numerous adverse effects on the ocean including increased ocean temperatures and acidification, deoxygenation, and rising sea levels.

ITLOS also recalled the IPCC's findings on the associated threat to human well-being and the disproportionate impact of climate change on vulnerable communities. The Tribunal noted that "climate change represents an existential threat and raises human rights concerns".

GHG emissions and marine pollution

The Tribunal found that anthropogenic GHG emissions constitute "pollution of the marine environment" as defined under article 1(1)(4) of UNCLOS. This finding is crucial because it triggers the application of obligations under UNCLOS in respect of climate change and its impacts on the ocean.⁸

⁶ The obligation of due diligence is an obligation of conduct.

⁷ Advisory Opinion (n 1), paragraphs 46–66.

⁸ *ibid* paragraph 178.

Obligations to prevent, reduce and control marine pollution in the context of climate change

ITLOS found that article 194(1) UNCLOS, a key provision in the present context, requires States to take all necessary measures to prevent, reduce and control marine pollution from "any source."⁹ These measures shall be taken individually or jointly as appropriate.¹⁰ ITLOS acknowledged the importance of joint actions given the global and transboundary nature of marine pollution from anthropogenic GHG emissions, however, with the following caveat:¹¹

"[...] it does not follow that the obligation under article 194, paragraph 1, of the Convention is discharged exclusively through participation in the global efforts to address the problems of climate change. States are required to take all necessary measures, including individual actions as appropriate."

ITLOS also spelled out the various factors States should consider in objectively assessing what constitutes the necessary measures. In summary, these are:

1. The best available science as found in the works of the IPCC, which ITLOS considered "particularly relevant in this regard":¹²
 - a. The global temperature goal of 1.5°C;¹³
 - b. Emission pathways to such goal.¹⁴
2. Relevant international rules and standards¹⁵
 - a. The United Nations Framework Convention (UNFCCC) and the Paris Agreement as the "primary legal instruments" in the context of climate change, particularly, the global temperature goal and the timeline for emission pathways as set out in the Paris Agreement;¹⁶
 - b. Annex VI to the International Convention for the Prevention of Pollution from Ships (MARPOL) in relation to shipping;
 - c. Volumes III and IV of Annex 16 of the Convention on International Civil Aviation (Chicago Convention) in relation to aviation;
 - d. The Montreal Protocol on Substances that Deplete the Ozone Layer, including the Kigali Amendment.
3. Available means and capabilities¹⁷
 - a. All States must make mitigation efforts.
 - b. However, the scope of obligations between developed and developing States differs (although "the reference to available means and capabilities should not be used as an excuse to unduly postpone, or even be exempt from, the implementation of the obligation to take all necessary measures" to reduce pollution).¹⁸

Crucially, ITLOS noted that obligations under UNCLOS are not necessarily satisfied simply by complying with the Paris Agreement, as UNCLOS and the Paris Agreement are separate agreements with separate obligations.¹⁹ This refuted the argument made by some States that the UNFCCC regime has exclusive authority when it comes to climate change. The "necessary measures" to be taken by States under their UNCLOS

⁹ *ibid* paragraph 189.

¹⁰ *ibid* paragraph 201.

¹¹ *ibid* paragraph 202.

¹² *ibid* paragraphs 207–208.

¹³ *ibid* paragraph 209.

¹⁴ *ibid* paragraph 210.

¹⁵ *ibid* paragraph 214.

¹⁶ *ibid* paragraph 222.

¹⁷ *ibid* paragraph 229.

¹⁸ *ibid* paragraph 226.

¹⁹ *ibid* paragraph 223.

obligations are to be determined *objectively*, rather than being *nationally determined* as under the Paris Agreement.

This is a crucial finding given the significant “emissions gap” that current national climate pledges under the Paris Agreement (NDCs) leave open.²⁰

Further, ITLOS found that the obligation under article 194(1) is one of due diligence and requires States to:²¹

“put in place a national system, including legislation, administrative procedures and an enforcement mechanism necessary to regulate the activities in question, and to exercise adequate vigilance to make such a system function efficiently, with a view to achieving the intended objective.”

The standard is stringent, given the high risks of serious and irreversible harm to the marine environment from anthropogenic GHG emissions.²² Given the potential for such serious and irreversible harm, States must also observe the precautionary principle.

Failure to comply with the obligation to take all necessary measures to prevent, reduce and control marine pollution from GHG emissions engages international responsibility for the non-compliant State.²³ Whilst ITLOS generally steered clear of issues of State responsibility and liability (given those issues were not raised in the request from COSIS),²⁴ this explicit reference to State responsibility for breaches leaves open the possibility of potential legal remedies and compensation.

Obligation to take all measures necessary in relation to transboundary pollution

A separate and additional obligation is placed on States in the context of transboundary pollution. States are required to take all measures necessary to prevent damage to other States and their environment under article 194(2) from activities “within their jurisdiction or control”. In respect of this obligation the standard of due diligence can be even more stringent given the nature of such pollution which affects the environment of other States.²⁵

ITLOS found that the concept of “jurisdiction or control” is broad and not simply territorial, encompassing all areas where a State can exercise its competence or authority in accordance with international law.²⁶ Such areas include a State’s exclusive economic zone and continental shelf, and activities carried out on board ships or aircraft registered in that State. The activities include activities carried out by both public and private actors.

Specific obligations concerning shipping and aviation

The obligation under article 194 UNCLOS is complemented and elaborated upon by other provisions of UNCLOS (articles 207 to 212) which address obligations of States with respect to specific sources, such as those from shipping, aviation and land-based sources. Broadly, those provisions concern the adoption of domestic legislation as well as the establishment of international rules and standards. Articles 213 to 222 UNCLOS address States’ obligations to enforce national legislation and implement international rules and

²⁰ United Nations Environment Programme (UNEP), Emissions Gap Report 2023: Broken Record (UNEP 2023) <<https://www.unep.org/resources/emissions-gap-report-2023>> accessed 8 July 2024.

²¹ Advisory Opinion (n 1) paragraph 235.

²² *ibid* paragraph 241.

²³ *ibid* paragraph 223.

²⁴ *ibid* paragraph 146.

²⁵ *ibid* paragraph 258.

²⁶ *ibid* paragraph 247.

standards.²⁷ The key specific obligations applicable to shipping and aviation pollution that were addressed by ITLOS are set out below.

The source-specific provisions under UNCLOS “complement and elaborate” the obligations common to all sources of pollution under article 194; thus, the findings in relation to article 194 are “equally applicable” to source specific obligations, and the interpretation of the relevant provisions should be “consistent” with that of article 194.²⁸

Specific obligations applicable to GHG emissions from or through the atmosphere

ITLOS outlined that article 212 UNCLOS imposes on States three obligations:

1. To adopt national legislation to prevent, reduce and control marine pollution from or through the atmosphere;
2. To take other necessary measures; and
3. To endeavour to establish international rules, standards and practices and procedures.

In adopting domestic legislation, States shall *take into account* internationally agreed rules and standards. This requires States to give consideration to them “in good faith”.²⁹ These internationally agreed rules and standards are those in climate change treaties, but also in Volume IV of Annex 16 of the Chicago Convention (relating to the Carbon Offsetting and Reduction Scheme for International Aviation or **CORSIA**) (concerning aviation) and Annex VI to MARPOL as well as the Revised GHG Strategy (concerning shipping).³⁰

In relation to the obligation “to endeavour” to establish international rules, ITLOS outlines that States are required to “make every effort in good faith” to establish these rules acting through the competent international organizations or diplomatic conferences.³¹ Importantly, the efforts of States “must be on a continuing basis”.³²

Next to obligations to adopt national legislation and establish international rules and standards, ITLOS also examined obligations of enforcement. Enforcement with respect to pollution from or through the atmosphere can be found in article 222 UNCLOS which imposes an obligation to adopt laws and regulations and to take measures required to implement, among others, rules and standards set out in climate change treaties and other relevant standards which are binding. Failing to do so may engage international responsibility of a State Party to the Convention.³³

Specific obligations applicable to GHG emissions from shipping

ITLOS also outlines States’ obligations under article 211(2) which imposes an obligation on flag States to adopt laws and regulations to prevent, reduce and control marine pollution from vessels. Such laws and regulations must at the minimum have the same effect as that of generally accepted international rules and standards established through the competent international organisation, understood to be the IMO. ITLOS stressed that this is a “minimum threshold” that national legislation should meet; in fact, States may adopt more stringent laws and regulations.³⁴

²⁷ *ibid* paragraph 190. ITLOS set out source-specific obligations of States in paragraphs 259–291.

²⁸ *ibid* paragraph 265.

²⁹ *ibid* paragraphs 277, 271.

³⁰ *ibid* paragraphs 277.

³¹ *ibid* paragraphs 277, 273.

³² *ibid* paragraphs 273, 277.

³³ *ibid* paragraph 286.

³⁴ *ibid* paragraph 279.

Concerning enforcement, ITLOS confined itself to the examination of article 217(1).³⁵ In this regard, ITLOS spelled out obligations of flag States to adopt laws and regulations and to take other measures necessary to implement international rules and standards as well as their national laws and regulations.³⁶ ITLOS concluded that the applicable international rules and standards must be binding and established through the competent international organization or general diplomatic conference (understood to be the IMO) and may be found, amongst others, in Annex VI to MARPOL.³⁷

However, just because a State has met these specific obligations does not mean it has complied with the obligation to take all necessary measures under article 194(1) which is an independent obligation that has to be determined objectively.

Other obligations and support for (in particular, climate vulnerable) developing States

ITLOS outlined other obligations under UNCLOS, such as those concerning global and regional cooperation,³⁸ technical assistance³⁹ and monitoring and environmental assessment.⁴⁰ In particular, ITLOS found that UNCLOS imposes specific obligations on States to "cooperate, directly or through competent international organizations, continuously, meaningfully and in good faith in order to prevent, reduce and control marine pollution from anthropogenic GHG emissions".⁴¹ The rules States formulate through such cooperation should be "consistent with the Convention and based on available scientific knowledge".⁴²

ITLOS also placed a high emphasis on the support of developing States that are particularly vulnerable to the impacts of climate change as "a means to addressing an inequitable situation".⁴³ This was also reflected in the majority of States' submissions in the proceedings which highlighted that assistance to developing States was "indispensable" in tackling marine pollution from climate change.⁴⁴ Notably, the categories of assistance measures under article 202 UNCLOS also includes financial assistance.⁴⁵ Article 203 reinforces the support for developing States, particularly those vulnerable to the climate crisis, by granting them preferential treatment, for instance, in funding from international organisations.⁴⁶

Obligations to protect and preserve the marine environment in relation to climate change

Regarding the obligations to protect and preserve the marine environment in relation to climate change impacts under article 192 UNCLOS, ITLOS held that this includes resilience and adaptation actions.⁴⁷ Again, this is an obligation of due diligence with a stringent standard given the high risks of serious and irreversible harm to the marine environment involved in the climate change context.⁴⁸ Additionally, States have specific obligations to protect and preserve rare or fragile ecosystems as well as the habitat of threatened species from climate change impacts on the ocean.⁴⁹ There are further specific provisions which require States to take

³⁵ Although noting that articles 218 and 220 also provide for enforcement by port States and coastal States.

³⁶ Advisory Opinion (n 1) paragraph 288.

³⁷ *ibid* paragraphs 289, 291.

³⁸ *ibid* paragraphs 294–321.

³⁹ *ibid* paragraphs 322–339.

⁴⁰ *ibid* paragraphs 340–367.

⁴¹ *ibid* paragraph 321.

⁴² *ibid* paragraph 321.

⁴³ *ibid* paragraph 327.

⁴⁴ *ibid* paragraph 325.

⁴⁵ *ibid* paragraph 336.

⁴⁶ *ibid* paragraph 337–338.

⁴⁷ *ibid* paragraph 391.

⁴⁸ *ibid* paragraphs 399–400.

⁴⁹ *ibid* paragraph 406.

conservation measures, including adaptation and resilience building.⁵⁰ Lastly, ITLOS touched on the use of area-based management tools, including marine protected areas, and the recently adopted Agreement 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 Agreement.⁵¹

Conclusion

2024 is shaping up to be a crucial year to ramp up global climate action as States are preparing the third round of NDCs due in early 2025. This is a unique opportunity, considering the current “emissions gap” and the fact that most States don’t even include the substantive emissions from international shipping and aviation in their NDCs.

Further, important climate negotiations are continuing to take place at the IMO on the development of the “basket of measures” that will deliver on the emission reduction targets of the Revised GHG Strategy. This basket of measures is due to be adopted in 2025, and will include a technical element namely a goal-based marine fuel standard regulating the phased reduction of the marine fuel’s GHG intensity, and an economic element, on the basis of a maritime GHG emissions pricing mechanism. And the ICAO Assembly, which meets once every three years, is due to meet again in 2025, providing an opportunity to increase climate ambition in the international aviation sector.

At the regional level, the European Union (EU) has extended its Emissions Trading System (ETS) to include shipping, an important regulatory step to tackle shipping’s climate impacts, and begun the gradual phase-out of “free allowances” for the aviation sector under the ETS (and noted an intention to extend the ETS to all flights departing from the European Economic Area if CORSIA is considered to be insufficient when assessed in 2025).

Change is also underway at the domestic level. For example, Switzerland has included emissions from international shipping and aviation in its net zero target enshrined in the national climate legislation and New Zealand is currently considering amending its climate law accordingly.

The Advisory Opinion has helpfully clarified States’ obligations in respect of all sources of GHG emissions under UNCLOS. These are stringent obligations, and simply complying with the Paris Agreement or partaking in IMO or ICAO initiatives is unlikely to be enough. The measures States need to take need to be determined objectively, by reference to the best available science and a 1.5°C pathway. Whilst international efforts remain short of that standard, States need to take unilateral or regional action to meet their international legal obligations.

This is particularly important for the international shipping and aviation sectors, where States have traditionally deferred to the IMO and ICAO respectively. To the extent the rules adopted under those United Nations agencies remain unaligned with 1.5°C, States need to take further domestic and/or regional action if they are to be confident that they have met their legal obligations and are not exposed to international responsibility for breaches of such obligations.

⁵⁰ ibid paragraphs 407–436.

⁵¹ ibid paragraphs 437–440.

About

[Opportunity Green](#) is an NGO working to unlock the opportunities from tackling climate change using law, economics, and policy. We do this by amplifying diverse voices, forging ambitious collaborations and using legal innovation to motivate decision makers and achieve climate justice.

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