frontiers | Frontiers in Marine Science

TYPE Policy and Practice Reviews
PUBLISHED 09 December 2024
DOI 10.3389/fmars.2024.1483677

OPEN ACCESS

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RECEIVED 20 August 2024
ACCEPTED 11 November 2024
PUBLISHED 09 December 2024

CITATION
Liang S (2024) Reflections on the interpretation and application of the due diligence obligation in international climate litigation: a comparative study of *Daniel Billy* et al. *v. Australia* and the COSIS advisory opinion. *Front. Mar. Sci.* 11:1483677. doi: 10.3389/fmars.2024.1483677

Reflections on the interpretation and application of the due diligence obligation in international climate litigation: a comparative study of *Daniel Billy* et al. *v. Australia* and the COSIS advisory opinion

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This article examines the interpretation and implementation of due diligence obligation in international climate litigation and advisory opinions, specifically by comparing *Daniel Billy* et al. *v. Australia* and the COSIS Advisory Opinion. It offers insights into the definition of due diligence obligation, the criteria for breach, and the remedies available under various legal frameworks. The due diligence obligation is not solely a direct duty under a specific treaty; it also imposes a positive obligation of conduct that must be evaluated within a broader legal framework. This method facilitates systemic integration. It facilitates the citation of pertinent regulations and precedents from different domains of international law during treaty interpretation. This approach promotes the harmonization and integration of various legal systems. The essay performs a comparative analysis of two cases. It analyses the implementation of the due diligence obligation in the realms of environmental and human rights protection. The emphasis is on the legal responsibility of States about climate change. The paper ultimately outlines the significance of the two instances for the future of international environmental law and the protection of human rights, highlighting the crucial role of due diligence responsibilities in combating climate change.

KEYWORDS

climate change, COSIS advisory opinion, ITLOS, international law, *Daniel Billy* et al. *v. Australia*, UNHRC

1 Introduction

The latest developments in climate change litigation have unfolded new grounds for reflection. *Daniel Billy* et al. *v Australia* (*Daniel Billy* et al.) (United Nations Human Rights Committee, 2022) in 2021 before the United Nations Human Rights Committee (UNHRC) exemplified the first successful climate complaint before international human rights organizations. In addition, on 21 May 2024, the International Tribunal for the Law of the Sea (ITLOS) issued an advisory opinion at the request of the Commission on Small Island States, pronouncing various issues relevant to the marine environment (COSIS Advisory Opinion).

Concerning the COSIS Advisory Opinion (2024) (International Tribunal for the Law of the Sea (ITLOS), 2024), the current literature has primarily explored the evolving role of the ITLOS in addressing marine environmental issues and the legal interpretation of clauses of relevant treaties, such as the United Nations Convention on the Law of the Sea (UNCLOS) (Mingozzi, 2023). Regarding *Daniel Billy* et al., scholars focus mainly on the lack of a judgment on the right to life (Lentner and Weronika, 2024; Luporini, 2023; Mcgaughey et al., 2024). The UNHRC made the first connection between climate change and indigenous cultural rights to habitation, demonstrating that a human rights approach is viable for resolving climate litigation (United Nations Human Rights Committee, 2014). The views of the UNHRC are not binding for international or domestic courts or tribunals. However, they are regarded as having precedentially legal value by informing future climate litigation within the human rights field (Tiger, 2022).

Notably, the UNHRC and the ITLOS have adopted the concept of due diligence in their opinions. While the general context of the two cases remains identical as related to climate change, the two institutions adopted the due diligence obligation in different ways. Such a difference deserves thorough research because the due diligence obligation is not limited to the direct obligation in the text of the treaty (Boyle, 2016). However, it also creates a positive obligation of conduct, which needs to be assessed in the context of a broader regulatory framework that goes beyond the direct obligation of the treaty. In addition, the due diligence obligation open possibilities for systemic integration (Roland Holst, 2022). It means that other relevant rules and tools of international law can be referred to when interpreting a treaty. Such an approach to interpretation takes into account not only the provisions of a single treaty but also rules in areas such as international environmental law and climate law that are relevant to it, thus achieving harmonization and integration between different bodies of law. Therefore, this paper aims to fill the gap by comparing the two cases in terms of definitions, standards of breaches, and reparations.

The *Daniel Billy* et al. was selected to assess the application of the due diligence obligation. The reason was that it highlights the intersection of environmental torts and human rights in climate change in the territory of a particular State (Peel and Osofsky, 2018; Savaresi and Auz, 2019; Pietro, 2021; Savaresi and Setzer, 2022). Also, by citing international treaties like the Paris Agreement and UNFCCC, the case emphasizes the close relationship between climate change and human rights, highlighting the international obligations of States (Maguire and McGee, 2017).

Additionally, the COSIS Advisory Opinion indicates that the obligation of due diligence is often celebrated as a potent tool for advancing the development of the law of the sea (Weston, 2024). It plays a crucial role in addressing deficiencies and gaps which emerge due to advancements in scientific understanding related to oceanic threats and innovative strategies for marine conservation (Weston, 2024). Similarly, this advisory opinion directly expresses points about human rights. The focus on small island States also shares a similar perspective as the focus on indigenous groups in *Daniel Billy* et al (Hagiarian, 2023). It cannot be ignored that *Daniel Billy* et al. occurred due to climate change caused by ocean acidification and that the main focus of the advisory opinion was also on how to address ocean acidification.

The remainder of this paper will proceed as follows: Section 2 and Section 3 will analyze the two cases adopting due diligence. Section 4 compares the application of the due diligence obligation in two cases: definition, violation and remedies. This section will also focus on how they apply different areas of law to the interpretation of due diligence obligation. Section 5 will summarize the full text.

2 Reflections on the due diligence obligation in the *Daniel Billy* et al. *v. Australia*

The following sections analyze the due diligence obligation in the case of *Daniel Billy* et al. Section 2.1 examines the decision, highlighting key arguments and outcomes. Section 2.2 addresses how the UNHRC approaches due diligence in this context, analyzing its interpretation and application of international treaties and climate litigation. Section 2.3 reflects on the judgment, assessing its broader impacts on human rights and environmental law.

2.1 Decision of *Daniel Billy* et al. *v. Australia*

Daniel Billy and eight other islanders (the claimants), representing six children, submitted an appeal to the UNHRC. They asserted that Australia did not implement adequate protective measures against the effects of climate change. They contended that this inaction has rendered their homeland progressively unfit for sustainable existence. The claimants are indigenous residents from the low-lying Torres Strait Islands. A report from the Torres Strait Regional Authority (2014) says that their islands are highly vulnerable to sea level rise and extreme climate events. Climate change makes Torres Strait Island one of Australia's most at-risk.

The claimants mentioned that Australia's failure to act violated their lives and those of their children. This failure breaches several rights under the International Covenant on Civil and Political Rights (ICCPR), including the right to life, privacy, culture, family, and home. It violates children's and future generations' rights (United Nations Human Rights Committee, 2022). The claimants

also stated that Australia has offended against Article 2 of the ICCPR, which obliges countries to take positive measures to stop infringements of the above rights (United Nations Human Rights Committee, 2022).

The UNHRC found that Australia did not satisfy its due diligence obligation under the ICCPR, especially regarding the islanders' rights under Articles 17 and 27 (United Nations Human Rights Committee, 2022). Australia neither implemented effective action to shield Torres Strait Islanders' private lives, families, homes and culture from climate change nor provided adequate and timely remedies because of flooding, erosion and loss of resources, contravening their rights under Article 17 (United Nations Human Rights Committee, 2022). Moreover, the islanders' culture, which was closely linked with their traditional land and surrounding marine environment, suffered a loss. This violated their rights under Article 27 of the ICCPR (United Nations Human Rights Committee, 2022). The UNHRC also quoted similar cases from the past, such as *Ominayak v. Canada* (1984), where those same indigenous rights and environmental degradation issues were addressed. As a result, the United Nations Human Rights Committee (2022) decided that Australia failed to undertake the due diligence obligation and must take steps to forestall such invasion of human rights and provide appropriate remedies for those affected in *Daniel Billy* et al. The UNHRC has asked Australia to detail how it implements these recommendations within 180 days (United Nations Human Rights Committee, 2022).

2.2 How the UNHRC deals with the due diligence obligation in the *Daniel Billy* et al. *v. Australia*

The UNHRC's decision notably focused on Australia's adherence to the due diligence obligation towards the Torres Strait Islander community. It is vital to assess Australia's fulfilment of the obligation under the 2015 Paris Agreement and the ICCPR, especially regarding adaptation measures (Lavell et al., 2012). As a party to both agreements, Australia must fulfil due diligence by assessing risks and implementing all feasible measures that can reasonably prevent foreseeable human rights abuses and minimize the impact of such climate catastrophe (United Nations Human Rights Committee, 2022).

Articles 6, 17, 24(1), and 27 of the ICCPR include concrete obligation of States to safeguard individuals under their jurisdiction against infringement of these rights, the UNHRC underlines (United Nations Human Rights Committee, 2022). These covers are acting to stop predictable hazards and life-threatening circumstances resulting from the effects of unfavorable climate change. The United Nations Human Rights Committee (2022) emphasizes in General Comment No. 36 that human rights should not be understood as safeguarding life itself. It also includes ensuring human dignity and living conditions that enable people to live in dignity in a healthy and safe environment. Some of the most urgent and significant hazards should also be seen as threats against human rights. Such include the deterioration of the environment, the impacts of climate change, and the trend of development lacking sustainability (United Nations Human Rights Committee, 2022).

The United Nations Human Rights Committee (2022) emphasizes the need to safeguard indigenous peoples' rights so they may enjoy their unique civilization and maintain their traditional way of life, which is directly related to their region and its resources. The United Nations Human Rights Committee (2022) concluded, directly affecting these rights is Australia's failure to act effectively in the face of climate change, mainly about environmental devastation on indigenous territory and people most dependent on natural resources. The United Nations Human Rights Committee (2022) observed that Australia's adaptation measures, including building seawalls, must be revised and completed promptly. Fast and substantial implementation of these activities is essential to safeguard the homes and livelihoods of the islands from the consequences of climate change, thereby ensuring efficient fulfilment of the due diligence obligation.

Australia's inadequate adaptation measures are mainly in the following areas. First, many critical initiatives outlined in the Torres Strait Regional Adaptation and Recovery Plan 2016-21 still have not received the necessary funding (United Nations Human Rights Committee, 2022). However, several coastal protection measures have been implemented in Boigu and Poruma Island (United Nations Human Rights Committee, 2022). This exemplifies Australia's inadequacy in allocating essential resources and implementing strategic long-term measures to effectively tackle the hazards presented by climate change (Miguel Wilson et al., 2010).

The UNHRC did not express a view on Australia's climate change mitigation policies, but this organization observed that Australia's attempts to decrease greenhouse gas (GHG) emissions are inadequate. United Nations Human Rights Committee (2022) condemned Australia for persistently advocating for exploiting and utilizing fossil fuels. The government must transition to sustainable and renewable energy sources, which is necessary to exercise due diligence. The government must still adopt and execute effective policies to substantially decrease emissions following global obligations (United Nations Human Rights Committee, 2022).

2.3 Reflections on the judgment concerning the due diligence obligation

The UNHRC members Duncan Laki Muhumuza and Gentian Zyberi offered critical insights into a state's obligation of due diligence under the human rights framework. Muhumuza views failure to significantly reduce GHG emissions and halt fossil fuel reliance as direct threats to the islanders' right to life, which enriches the definition in Article 6 of the ICCPR highlighted by the Urgenda Foundation v. the State of Netherlands (The State of Netherlands v. Urgenda Foundation, 2019). The State party must protect the claimants' right to a dignified existence and prevent the blatantly predicted loss of life brought on by climate change.

Furthermore, Zyberi focused on climate action, demonstrating a need for international cooperation and ambitious state-level mitigation policies (United Nations Human Rights Committee, 2022). He argued that the global endeavor was insufficient, but more notably, those States with high output had a greater responsibility to stop exacerbating climate change hazards (Peel and Osofsky, 2018). On the other hand, Zyberi argued for the operationalization of a positive integration between mitigation and adaptation measures to effectively continue to safeguard human rights standards supported by scientific evidence (United Nations Human Rights Committee, 2022).

This ruling has important implications for international environmental law and human rights protection. It emphasizes that States have a duty to adopt due diligence obligation to protect individuals from the adverse effects of climate change, which violates fundamental human rights (Luporini, 2023). Luporini (2023) argues that this decision reinforces the need for positive measures to adapt to and mitigate climate change in order to fulfil human rights obligations.

Daniel Billy et al. (2022) (United Nations Human Rights Committee 2022) determined that due diligence was essential in preventing climatic disasters. At the same time, the legal responsibility of states to protect vulnerable populations from environmental destruction was illustrated. Furthermore, the COSIS Advisory Opinion (2024) (International Tribunal for the Law of the Sea (ITLOS), 2024) has further deepened the definition of due diligence, combining scientific knowledge and international treaties or cases to provide an adynamic and updated framework of guidance for States to address global environmental challenges more effectively.

3 The due diligence obligation in the COSIS advisory opinion on the climate change

The section below continues to an in-depth and comprehensive recasting of due diligence in international law of the sea and international climate treaties based on the COSIS Advisory Opinion. The critical points of the advisory opinion are broken out in this part. It looks at its legal ramifications, especially with relation to States including adaptive and mitigating policies in their national agendas. It underlines that ITLOS has broadened the concept of "due diligence" to include a proactive and dynamic approach; COSIS Advisory Opinion suggests that States use scientific data and international standards in their environmental policy. This study intends to open the path of knowledge on the interpretation of ITLOS due diligence and the response of the academic research community, which will be developed in section 3.3.

3.1 Main elements of the advisory opinion and Legal interpretation of due diligence obligation

The COSIS Advisory Opinion makes clear that the due diligence obligation requires States to integrate prevention and mitigation strategies into their national policies actively, not just to control direct pollution but also to address the more comprehensive environmental damage associated with climate change (Luporini, 2023). The International Tribunal for the Law of the Sea (ITLOS) (2024) highlights the importance of adopting high standards of behavior obligation due to the risk of severe and potentially irreversible damage to marine ecosystems from inadequate and lagging measures.

In the law of the sea and the international climate change regulation, the COSIS Advisory Opinion enriched the definition of due diligence. Particularly in the climate's legal framework, such as UNFCC, due diligence is the obligation of States to meet specific emission reduction targets to prevent ocean acidification. For the oceans, Articles 192 and 194 of UNCLOS obligate States to protect and preserve the marine environment from all pollution sources and ensure that their activities do not harm other States or areas beyond national jurisdiction. (International Tribunal for the Law of the Sea ITLOS, 2024). In both legal frameworks, the definition of due diligence plays a role in formulating standards for unified national conduct.

The due diligence standard in the international legal framework is dynamic and open to development. This advance is driven by changes in circumstances, advancements in scientific understanding, and improvements in technological capabilities. Therefore, the ITLOS has highlighted the critical relationship between science and the law. The ITLOS demands that States incorporate the most current scientific data and international norms into their policies. For instance, the Paris Agreement seeks to limit the global temperature increase to below 1.5 degrees Celsius above pre-industrial levels, necessitating substantial reductions in GHG emissions over the next few decades. More and more governments are taking measures, USA and China have announced their joint targets for efforts to limit GHG emissions during the next ten to fifteen years (The White House Office of the Press Secretary, 2014). From this, the ITLOS introduces a proactive and dynamic requirement that adapts to the complexities of environmental management in the age of climate change.

Furthermore, ITLOS stresses that the high risks of severe and irremediable harm to the marine environment are making it critical that there be a strict due diligence standard in place. Integrating scientific insights into environmental policies goes beyond the content of legal judgments, running through to practical implementation (International Tribunal for the Law of the Sea ITLOS, 2024). The International Tribunal for the Law of the Sea (ITLOS), 2024 underscores that it is essential to monitor and assess environmental impacts using established scientific methods under Article 204 of UNCLOS. This scientific approach ensures that environmental policies are based on accurate and up-to-date information, enhancing their effectiveness and reliability (International Tribunal for the Law of the Sea ITLOS, 2024). It further emphasizes that due diligence obligation must be flexible and adaptive to the capabilities and specific conditions of each State (International Tribunal for the Law of the Sea ITLOS, 2024). This nuanced approach allows for strategies tailored to each country's technological, economic, and resource capacities (International Tribunal for the Law of the Sea ITLOS, 2024). In particular,

developed countries may be encouraged to adopt advanced technical solutions, whereas developing countries could focus more on cost-effective measures. This interpretation raises the standard of differential responsibility in global environmental governance (Peel and Schechinger, 2017).

3.2 Impacts on the COSIS advisory opinion on the interpretation of the due diligence

Many scholars stress the importance of this advisory opinion in harmonizing international obligations and new scientific standards for the environment (Weston, 2024; Deng et al., 2024), This fusion also ensures that due diligence is not just a static duty but an active and continuing one. This viewpoint has the capacity to influence national policies and lay the groundwork for international collaboration. The advisory opinion is the foundation for forthcoming legislative and policy frameworks, especially with environmental conservation. In addition, ITLOS serves as a prime example of implementing due diligence by considering each State's technological, financial, and personnel circumstances while maintaining fairness (Paavola and Neil Adger, 2006). ITLOS offers nations comprehensive and meticulous elucidation, assisting them in fulfilling their international obligations in line with UNCLOS.

However, doubts and criticisms exist about the advisory opinion's feasibility and legal basis. Certain scholars must exhibit greater concern for the practicality of converting these extensive duties into implementable policy (Rothwell, 2023; Roland Holst, 2022). Even though these obligations have a legal basis, applying them internally might cause some problems due to their general and sometimes vague nature (Rothwell, 2023; Roland Holst, 2022). Another thing to consider in relation to procedure and substance is whether the ITLOS finds itself in trouble when it gives advisory opinions. Some scholars wonder whether the ITLOS has a sufficient legal basis to exercise its advisory functions. It has been argued that despite ITLOS justifying and reinforcing its advisory capacity through interpretations of both Article 21 of its Statute and Article 138 of its Rules in response to a request by the Sub-Regional Fisheries Commission (SRFC Advisory Opinion) (International Tribunal for the Law of the Sea (ITLOS), 2015), the present advisory opinion continues to encounter legal challenges regarding its jurisdiction (Mingozzi, 2023).

4 A comparative study on the interpretation and application of the due diligence obligation in two cases

This section explores the definition and evolution of the due diligence obligation in international law by analyzing the case of *Daniel Billy* et al. and the COSIS Advisory Opinion, highlighting the shift in the law towards a precautionary and scientific approach, particularly within climate change challenges. The boundaries of due diligence obligation violations are also explored, how States can fulfil their legal duties in the context of environmental challenges, and the importance of adaptation and mitigation remedies is discussed.

4.1 Stand of defining the due diligence obligation

This section examines *Daniel Billy* et al. and the COSIS Advisory Opinion to define international due diligence. International legal system is shifting toward a proactive preventive strategy, especially in the face of climate change. It emphasizes states taking preventive steps and safeguarding culture and human rights, especially vulnerable area. For a complete understanding of the due diligence responsibility to address climate change within law of sea and human right framework, it contrasts two cases' definitions and illustrates the relationship between domestic law and global environmental governance.

4.1.1 A high standard for setting the due diligence obligation in the *Daniel Billy* et al. *v. Australia*

The United Nations Human Rights Committee (2022) emphasizes that the due diligence obligation requires States to take positive measures to prevent foreseeable threats to human rights. This includes adopting adaptation and mitigation measures to address the negative impacts of climate change (Luporini and Savaresi, 2023). States must deploy appropriate means, use their best efforts, and do everything possible to achieve these outcomes. Mayer (2022) recalls Article 4(9) of the Paris Agreement, which requires parties to be informed of the outcomes of the global situation when communicating new Nationally Determined Contributions (NDCs). He contends that other agreement sections only offer recommendations or expectations without binding legal authority. Mayer (2022, p55) argues that Article 4 (4) of the Paris Agreement imposes varying obligations based on a country's level of development. He suggests that developed nations are expected to lead by setting broad, absolute emission reduction targets. In contrast, developing countries are encouraged to gradually adopt similar economy-wide emission reductions or limitations over time. He further observes that Article 4(3) imposes no binding commitment. The text states that each party's successive NDCs "will … reflect its highest possible ambition." This use of "will" signals an expectation rather than a legally enforceable obligation. In this way, *Daniel Billy* et al. is an entry point for establishing the expectations in the agreement as a matter of state responsibility through a human-right approach.

In this case, the due diligence obligation here reflects distinct environmental, cultural, and human rights considerations. First, the case references *Käkkäläjärvi* et al. *v. Finland* (2018) emphasizes the importance of protecting the rights of indigenous and minority communities, whose cultural and traditional practices are closely linked to the natural environment. This content enriches the definition of due diligence obligation, as it requires measures beyond the general protection of the environment, including the protection of cultural heritage and traditional ways of life (United Nations Human Rights Committee, 2022).

Moreover, due diligence requires proactive and preventive measures rather than reactive responses. Climate change is persistent and cumulative, changing and intensifying hazards daily and predictably threatening the right to life and health. This perspective aligns with the The State of Netherlands v. Urgenda

Foundation (2019), where proactive measures were considered necessary to address climate threats. However, there remains a significant concern from the claimants that has not been addressed, resulting in the continued violation of their right to life, which is potential climate hazards. Australia needs to anticipate and mitigate potential environmental risks before they cause harm. This includes responding to existing threats and anticipating future challenges posed by climate change. This approach emphasizes the forward-looking nature of due diligence and aims at prevention rather than remediation after the event (Farkas et al., 2013).

Given the severe and potentially irreversible impacts of climate change on Torres Strait Islanders and that Australia is a high total emitter and can assume a high level of responsibility, the due diligence obligation, in this case, sets a high standard (Peel and Osofsky, 2018). Australia must demonstrate that it has taken all practicable and reasonable measures to protect the Islanders' rights. This high standard reflects the urgency and significance of the risk and requires strong and effective State action (United Nations Human Rights Committee, 2022).

4.1.2 The dynamic standard for establishing due diligence obligation in the COSIS advisory opinion

The ITLOS mentions the concept of due diligence in several paragraphs in the COSIS Advisory Opinion. The first description is in paragraph 234, where the ITLOS links such a concept with the definition adopted by the Seabed Disputes Chamber. According to this approach, the definition of due diligence is "connected" to the "obligations of conduct", which is consistent with the Responsibilities and obligations of States with respect to activities in the Area (Seabed Advisory Opinion) in 2011. This view is identical to the nature of the State's due diligence obligation under Article 194, paragraph 1 (International Tribunal for the Law of the Sea ITLOS, 2024). In deconstructing the concept of due diligence, the COSIS Advisory Opinion (2024) (International Tribunal for the Law of the Sea (ITLOS), 2024) highlights the precautionary approach as essential. This statement also continues the Seabed Advisory Opinion published in 2011 (International Tribunal for the Law of the Sea ITLOS, 2024). This approach aligns with the duty of due diligence outlined in Article 194, paragraph 1. Even when scientific evidence on the likelihood and severity of potential harm to the marine environment is lacking, this obligation still applies and must be met (International Tribunal for the Law of the Sea ITLOS, 2024).

Following paragraph 234, the International Tribunal for the Law of the Sea (ITLOS) (2024) subsequently dives deeper into the concept of due diligence in paragraph 235, revealing the detailed requirements of such obligations, mainly a certain level of vigilance. In this passage, the ITLOS refers to *Argentina v. Uruguay*, adjudicated by ICJ. For instance, creating laws, setting up administrative procedures, and establishing an enforcement system are essential. These measures must be in place to regulate the relevant activities and ensure the system operates effectively. Such operators could monitor activities undertaken by public and private operators.

Immediately after that, in paragraph 239, the COSIS Advisory Opinion (International Tribunal for the Law of the Sea (ITLOS), 2024) discusses another feature of the due diligence obligation-"variable concept". This view is consistent with the Seabed Advisory Opinion. The definition of due diligence is not fixed. Consequently, articulating due diligence in broad terms is challenging (International Tribunal for the Law of the Sea ITLOS, 2024). Due diligence varies because each situation demands a unique response. Factors like scientific and technological data, international rules and standards, the level of risk, and the urgency of the issue must all be taken into account (International Tribunal for the Law of the Sea (ITLOS), 2011).

Based on the severe and continuing worsening of marine pollution caused by human emissions of greenhouse gases, the definition of the duty of due diligence arrived at by the COSIS Advisory Opinion through a reading of Article 194(1). Previous cases and advisory opinions emphasize the obligation to take all necessary steps to prevent, reduce, and control marine pollution caused by human induced GHG emissions (International Tribunal for the Law of the Sea ITLOS, 2024).

In paragraph 254 of the COSIS Advisory Opinion, The International Tribunal for the Law of the Sea (ITLOS) (2024) made it clear that the duty of due diligence in article 194, paragraph 2, is the exact nature of due diligence obligation in paragraph 1. Although the scope of application of the two paragraphs differed, both required States to take essential actions to prevent, reduce, and control marine pollution (International Tribunal for the Law of the Sea ITLOS, 2024). Paragraph 255 further stressed that this obligation of due diligence applies not only to the conduct of States but also to conduct relating to private entities. Citing the interpretation of paragraph 1, the International Tribunal for the Law of the Sea (ITLOS) (2024) held that States were not only required to take actions but also to ensure that those actions effectively responded to potential pollution risks. In paragraph 257, the ITLOS clarified the nature of the obligation of due diligence, noting that it was a mandatory requirement based on objective criteria rather than an obligation that relied on State discretion. In paragraph 258, the ITLOS confirmed that the obligation in article 194, paragraph 2, was essentially an obligation of due diligence, particularly when responding to transboundary pollution, which required States to take measures of a higher standard to avoid environmental damage to other States. The COSIS Advisory Opinion notes that Article 194(2) provides a richer interpretation of the definition of the duty of due diligence, particularly when dealing with transboundary pollution; the obligation of due diligence is not only a behavioral requirement but also an objective and strict obligation that must be fulfilled in a given situation.

In paragraph 395, the ITLOS explains that the obligation under Article 192 of the UNLOCS is an obligation of due diligence. This due diligence emphasizes the need for States to take appropriate measures to protect and preserve the marine environment, including the duty to prevent and minimize environmental damage. This is further developed in paragraph 396, where it is noted that this obligation requires not only that the State itself take action but also that it ensures that non-state actors under the jurisdiction or control of the State comply with these protective measures. In paragraph 397, the ITLOS discussed that the content

of the due diligence obligation relies on specific treaty obligations and that the nature of the obligation may evolve as environmental policy and scientific understanding evolve. Here, the ITLOS emphasized that the due diligence obligation is dynamic and requires States to continuously adapt their environmental protection strategies in the light of current scientific knowledge and technological capabilities. Overall, in international environmental law, due diligence functions as a conduct-based obligation. It demands that States consistently evaluate and address activities that could affect the marine environment. States must also take precautionary measures to prevent or reduce environmental harm (Matz-Lück and van Doorn, 2017).

In paragraph 422 of COSIS advisory opinion, the ITLOS clarified that the duty to "seek to achieve consensus" under article 63, paragraph 1, and the duty to cooperate under article 64, paragraph 1 are due diligence. This is explained, in part, by reference to the Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission, Advisory Opinion in 2015, which requires the States concerned to conduct consultations in good faith by Article 300 of the UNCLOS and to ensure that these consultations are substantive and meaningful (International Tribunal for the Law of the Sea (ITLOS), 2015). Through this interpretation, the ITLOS has clarified that the due diligence obligation goes beyond mere formal cooperation and requires the States concerned to demonstrate active and substantial efforts in practice to achieve shared conservation and resource management objectives.

From the above observation, the definition of due diligence adopted by the International Tribunal for the Law of the Sea (ITLOS) (2024) is a conduct obligation rather than result. States must take all reasonable and practical measures to prevent, minimize or control possible environmental impacts in light of the latest scientific knowledge and technological advances (Baars, 2023). This includes the continuous updating of environmental protection measures, the conduct of comprehensive environmental impact assessments prior to activities that may significantly impact the marine environment (Poisel, 2012), and the use of precautionary measures to prevent significant harm to the marine environment where scientific evidence is incomplete (International Tribunal for the Law of the Sea ITLOS, 2024, para242). In addition, the due diligence obligation requires States to cooperate with other States and regional organizations to manage shared resources and address environmental challenges (International Tribunal for the Law of the Sea ITLOS, 2024).

4.1.3 Comparing the variability of the definition in the two cases

Daniel Billy et al. and COSIS Advisory Opinion all recognize that States must implement proactive, preventive measures instead of reactive responses (Alan, 2019; James, 2024). In *Daniel Billy* et al., the UNHRC mandates Australia to establish stringent climate mitigation targets, necessitating actions that precede environmental degradation (United Nations Human Rights Committee, 2022). Similarly, the COSIS Advisory Opinion (International Tribunal for the Law of the Sea (ITLOS), 2024) mandates States to undertake all necessary measures to curb marine pollution preemptively, especially pollution exacerbated by climate change effects such as ocean warming and acidification.

The specific underpinning of due diligence is a critical element in both contexts. The Australian case stipulates that national efforts must align with the best available scientific data to ensure that mitigation and adaptation strategies are effective and appropriate for the scale of environmental risks (United Nations Human Rights Committee, 2022; International Tribunal for the Law of the Sea (ITLOS), 2011; International Tribunal for the Law of the Sea (ITLOS), 2024). However, the frameworks diverge significantly in their legal and contextual application. The *Daniel Billy* et al. operates within a national legal context where due diligence is linked directly to domestic law obligations and encompasses broader human and cultural rights, explicitly addressing the impacts on Indigenous communities (United Nations Human Rights Committee, 2022). This inclusion of cultural dimensions highlights a unique layer of legal obligation that requires measures not only for environmental protection but also for safeguarding cultural heritage (United Nations Human Rights Committee, 2022). Conversely, the COSIS Advisory Opinion is framed within the international legal context of UNCLOS, focusing on the collective responsibilities of States to manage the global marine environment (Natalie, 2020; International Tribunal for the Law of the Sea (ITLOS), 2001). This international scope broadens the due diligence requirement to include global cooperative measures and emphasizes the need for collective action in addressing transboundary environmental issues.

Furthermore, the COSIS Advisory Opinion introduces a dynamic aspect of due diligence that adjusts to technological and scientific advancements over time, reflecting an evolving standard that must accommodate ongoing changes in environmental conditions and capabilities of States (International Tribunal for the Law of the Sea ITLOS, 2024). This contrasts with the more static application in *Daniel Billy* et al., where the obligations are set within a specific national policy framework without the explicit requirement for adaptation to evolving global standards (United Nations Human Rights Committee, 2022). In *Daniel Billy* et al. and *Ioane Teitiota v New Zealand* (2020), the United Nations Human Rights Committee (2022) determined that the threat to life was potential rather than immediate. The gradual rise in sea levels and climate change were not viewed as an "imminent" or "foreseeable" threat to the right to life. However, one scientific and factual situation will not remain unchanged. Climate change is a continuing and increasing hazard to people's lives (Pachauri et al., 2014). Moreover, the threat of climate change to food security and residential security is imminent.

4.2 The degree of infringement of the due diligence obligation

This Part provides an in-depth analysis of the boundaries of due diligence obligation breaches. It explores specific applications in international law through the *Daniel Billy* et al. and the COSIS Advisory Opinion. These discussions have highlighted the importance of States' fulfilment of their legal obligations when responding to foreseeable environmental challenges. Next, a

comparison of the due diligence standards in the two cases is made to explore their application in different legal frameworks and how they complement each other while also integrating into other environmental law and human rights frameworks in order to better understand and implement this legal principle, especially in the context of global climate governance.

4.2.1 Breach of due diligence in *Daniel Billy* et al. *v. Australia* for delayed adaptation measures

In the case of *Daniel Billy* et al., the United Nations Human Rights Committee (2022), it examined whether the Australian government had fulfilled its due diligence obligation under Articles 17 and 27 of the ICCPR.

Article 17 mandates protection against arbitrary or unlawful interference with one's privacy, family, and home (United Nations Human Rights Committee, 2022). The judgment found that the Australian government failed to implement timely and effective adaptation measures to protect the Torres Strait Islands from predictable environmental impacts such as flooding and extreme weather, thereby increasing their vulnerability to such events (United Nations Human Rights Committee, 2022). The United Nations Human Rights Committee (2022) notes that the State party has not explained the delay in constructing the seawall on the island where the claimants live. The State party has not refuted the claimants' allegations regarding the specific impact of climate change on their family and private lives. The claimants describe in detail the impact of flooding on villages, ancestral burial grounds, traditional gardens, and private lives, pointing to the reduction of marine resources and the salinization of the land (United Nations Human Rights Committee, 2022). The United Nations Human Rights Committee (2022) notes that these allegations include the withering of traditional gardens as a result of seawater infiltration, the decline of nutritionally and culturally important marine species, coral bleaching and ocean acidification, and the threat to houses and ancestral burial grounds from flooding and erosion. The claimants emphasize the importance of these changes to cultural rituals and community life. Accordingly, the UNHRC found that the State party had violated the claimant's rights under Article 17 of the ICCPR.

Furthermore, Article 27 safeguards the rights of minorities to enjoy their own culture, which, for indigenous communities, is often closely linked to the environment and the sustainable use of natural resources (United Nations Human Rights Committee, 2022). The enjoyment and exercise of individuals' rights under Article 27 must be dependent on the ability of the minority group to which they belong as a whole to maintain and transmit its culture, language or religion, which is aligned with the opinion in *Käkkäläjärvi* et al. *v. Finland* (2018). The United Nations Human Rights Committee (2022) notes the claimants' claim that climate change has weakened their ability to maintain their culture, resulting in a decline in the viability of their islands and the surrounding seas and the erosion of the land and natural resources used for their traditional fishing, farming and cultural ceremonies (United Nations Human Rights Committee, 2022). The United Nations Human Rights Committee (2022) also notes that the State party has not refuted the claimants' argument that they cannot practice their culture on the Australian mainland because there is no land suitable for their traditional way of life. The United Nations Human Rights Committee (2022) considers that the impact of climate change on the claimants' community was foreseeable, as community members began to raise this issue as early as the 1990s. Although the State party has constructed seawalls on the islands where the claimants live, the delay in launching these projects demonstrates the need for more response. In conclusion, the United Nations Human Rights Committee (2022) considers The State's failure to implement timely and adequate adaptation measures violates its positive obligation to protect the cultural rights of minorities. This neglect endangers the claimants' ability to preserve their traditional way of life, pass down their culture and traditions, and use land and sea resources for future generations. Accordingly, the UNHRC found that the State party had violated the claimant's rights under Article 27 of the ICCPR (Tigre, 2022).

The above analyses of Articles 17 and 27 show that the violation of the criterion of the adequacy and timeliness of adaptive measures and the results of the hazards caused by delayed and insufficient measures are also part of the criteria for breach of due diligence. The above analyses of Articles 17 and 27, where the criterion is violated, are that the adequacy and timeliness of the adaptive measures and the results of the hazards caused by the delays and inadequacy of the measures are also part of the evaluation system.

The UNHRC decision makes clear that Specific criteria for violating the due diligence obligation go beyond mere violations of the right to life. They also cover the failure to address pre-existing and indirect impacts of climate hazards that affect other fundamental rights, such as cultural rights and the right to housing. The specific criteria for breach of the duty of due diligence in *Daniel Billy* et al. involve the failure of the State to protect not only the physical environment but also the social and cultural well-being of its population in the face of environmental challenges.

4.2.2 Breach of due diligence in COSIS advisory opinion for lack of preventive and cooperative measures

This section must address the criteria for breaching due diligence responsibilities under the COSIS Advisory Opinion as follows. According to Article 235 of UNCLOS and the general rules of State responsibility, the occurrence of damage is not a prerequisite for State responsibility (International Tribunal for the Law of the Sea ITLOS, 2024). However, if there is damage but no internationally wrongful act, responsibility cannot be established. This suggests that the question of attribution lies in a breach of the duty of due diligence and not merely in the occurrence of damage (International Tribunal for the Law of the Sea (ITLOS), 2011).

Criteria for breach of due diligence obligation are mentioned in paragraph 47 firstly, which is the obligation of States to take 'timely and adequate' measures to prevent future harm and to preserve the present State of affairs, which encompasses both positive measures of protection and negative obligations not to aggravate the status quo(International Tribunal for the Law of the Sea ITLOS, 2024). In other words, measures taken by States that do not meet the level of

timeliness and sufficiency may be found to be in breach of the due diligence obligation. The United Nations General Assembly has issued multiple statements emphasizing the detrimental effects of climate change on marine ecosystems and creatures, as well as the imperative to mitigate its impacts. Climate change-related due diligence obligation should therefore correspond to the characteristics of climate change.

Second, failure to demonstrate sufficient vigilance and enforcement may be found to be a failure to fulfil the due diligence obligation (International Tribunal for the Law of the Sea ITLOS, 2024; Pulp Mills on the River Uruguay (Argentina v. Uruguay), 2010). In paragraph 356 of the COSIS Advisory Opinion, ITLOS reaffirms the importance of vigilance and prevention, as seen in the *South China Sea arbitration* (2016). The ruling stressed that due diligence in marine environmental protection demands the implementation of proper measures and consistent vigilance in their enforcement and administrative control.

Additionally, International Tribunal for the Law of the Sea (ITLOS) (2024) highlighted specific climate mitigation goals in paragraph 77. These include "limiting global warming to 1.5°C" and achieving a 43 percent reduction in global greenhouse gas emissions by 2030 in Sharm el-Sheikh Implementation Plan (United Nations Framework Convention on Climate Change (UNFCCC), 2022), which is aligned with the Paris Agreement. If current NDCs collectively fall short of this target, States would fail to respond to their due diligence obligation. However, in the COSIS Advisory Opinions, the ITLOS is unlikely to specify what measures States need to take or how much more they need to do. This is especially true since the Paris Agreement allows States to freely determine the content of their NDCs as long as they are progressively ambitious. At the same time, it also emphasized the specific content of the duty of due diligence needs to be assessed on a case-by-case basis, and failure to take the 'necessary measures' in a given situation constitutes a breach of the duty of due diligence. This flexibility allows for the progressive development of treaty obligations in a broader normative context. However, due diligence is unlikely to exceed the existing climate change targets.

In the International Tribunal for the Law of the Sea (ITLOS) (2024)'s view of paragraph 297, Part XII of the UNCLOS embodies the duty to cooperate. This principle underpins most multilateral climate treaties, including the UNFCCC and the Paris Agreement, which interpret and apply it in different ways. The ITLOS noted that, given that the global impact of anthropogenic greenhouse gas emissions necessarily requires the collective action of States, the duty to cooperate is an integral part of the general obligation under articles 194 and 192 of the UNCLOS. Specific co-operation measures are explained in the COSIS Advisory Article 194, paragraph 1, so the following are the criteria that would lead to a breach of the duty of due diligence, including failure to take preventive measures, neglect of the duty to cooperate, disproportionate unilateral action, neglect of global efforts to reduce emissions and failure to carefully consider appropriate measures in specific cases (International Tribunal for the Law of the Sea ITLOS, 2024).

Also, pollution of the marine environment from any source under Article 194, paragraph 1 of the UNCLOS necessarily includes pollution that has yet to occur, such as future or potential pollution. Therefore, Failure to successfully prevent future or potential pollution and to reduce and control existing pollution is a violation of the due diligence standard. Moreover, the formulation of Article 192 highlights that States are required not only to actively take measures to protect and improve the State environment but also to refrain from acts that may lead to its deterioration. Thus, the obligation of due diligence is not only one of repair and prevention but also one of cessation of damage. For example, Australia's reliance on and use of coal energy is a continuing detriment and breach of due diligence obligation.

Furthermore, the introduction of alien species into specific parts of the marine environment as a result of climate change and ocean acidification can also lead to breaches of the due diligence obligation, which can be found in paragraph 231 of the COSIS Advisory Opinion. The (International Tribunal for the Law of the Sea ITLOS, 2024) is aware that marine geoengineering has been discussed and regulated in a number of forums, including the 1972 Convention on the Prevention of Marine Pollution and its 1996 Protocol and the Convention on Biological Diversity. This change may bring about significant and harmful changes to the marine environment. Article 196 (1) provides that other effects of climate change that do not fall within the definition of pollution may give rise to specific obligations to protect the marine environment from future threats.

4.2.3 Reflections on the variability of the criteria in the two cases

In short, the due diligence violation standard in both the case and COSIS Advisory Opinion emphasizes the timeliness and adequacy of the measures. At the same time, both examples cite other treaties and international decisions in explaining the breach standard for more detailed elaboration, answering how treaties should be used in specific climate change cases (International Tribunal for the Law of the Sea ITLOS, 2024). Having summarized the commonalities between *Daniel Billy* et al. and the COSIS Advisory Opinion regarding breaches of standards, the following analysis focuses on how their differences can complement and build upon each other.

In *Daniel Billy* et al., the United Nations Human Rights Committee (2022) found Australia violated the 'rights to privacy, life and family' and 'cultural rights' but did not rule on the violation of Article 24 of the UNCLOS, which directly relates to the rights of children and future generations. This decision reveals an inconsistency in the UNHRC's application of the 'future harm' rule: while accepting the 'future harm' rule in assessing violations of the 'right to culture', the 'right to life' was not ruled upon in the case of the 'right to life', leading to differences in the standard of protection of the different rights (Kahl, 2023). This position fails to adequately address future intergenerational rights and their protection, particularly the rights of children and future generations in the context of environmental and climate change.

However, COSIS Advisory Opinion restated the opinion mentioned by ICJ the environment 'represents the living space, the quality of life and the health of mankind, including future generations' (International Court of Justice, 1996). The due diligence obligation to safeguard the marine environment against climate change holds significant potential for progressive interpretation (Permanent Court

of Arbitration, 2016). Notably, the obligations outlined in Articles 192 and 194 have been progressively interpreted to encompass both 'protection' against future harm and 'preservation' aimed at maintaining and enhancing the current State of the marine environment. This dual interpretation imposes a positive obligation to actively implement measures for protection and preservation alongside a negative obligation to prevent any degradation of the existing marine conditions, highlighting a forward-looking approach to environmental stewardship (Permanent Court of Arbitration, 2016).

Actual, in similar contexts of human rights and the marine environment, as well as climate change, the international judiciary could incorporate a 'future' and 'cooperation' reading of the environmental change and general protection obligations of the ITLOS into the Decision of *Daniel Billy* et al., where issues such as the rights of the child and life would require forward-looking solutions, and where the impacts of the solutions should be intergenerational.

In the *Pulp Mills* Case, Judge Trindade emphasized the link between culture and the rights of future generations (Trindade, 2006). Trindade (2010) argued that it was crucial to bring the concept of 'potential or intended victims' into the practice of human rights treaties, citing the Goa principle that each generation inherits the natural and cultural heritage of previous generations, both as beneficiaries and guardians, which reinforces the responsibility to pass on this heritage to future generations (International Court of Justice, 2006). However, this comment refers to another issue: how future judicial decision-making will define 'future generations' in the context of intergenerational equity. Such questions may be more appropriately addressed through case-by-case analyses (Bhardwaj, 2023).

The cross-regional character of the due diligence obligation in relation to climate change and the fact that the obligation to cooperate is also included in the standard for its breach make it possible for *Daniel Billy* et al. to refer to the treatment of *Pulp Mills* as well. The ITLOS (2015) expressed a view of co-operation in the SRFC Advisory Opinion based on *Pulp Mills* cases. The obligations to "seek to agree" under Article 63, paragraph 1, and to cooperate under Article 64, paragraph 1, are considered "due diligence" duties. These require the involved States to engage in good faith consultations, as outlined in Article 300 of the UNCLOS, which was carried over into the COSIS Advisory Opinion.

4.3 The remedies and compensation after the violation of the due diligence obligation

This paper examines remedies for breaches of due diligence obligation in the *Daniel Billy* et al. and the COSIS Advisory Opinion. *Daniel Billy* et al. focused on immediate adaptation measures that States should take to protect populations affected by climate change. However, ITLOS was only covering primary obligations, which focused on preventative and long-term strategies, highlighting UNCLOS's role in tackling ocean acidification and global climate liability. The following sections analyze the reasons why ITLOS, as an advisory opinion for a number of small island States, lacks targeted compensatory measures like the Decision of *Daniel Billy* et al, and make additional recommendations for future advisory opinions.

4.3.1 Emphasis on adaptation remedies in *Daniel Billy* et al. *v. Australia*

Paragraphs 11 and 12 of the United Nations Human Rights Committee (2022) decision indicate the remedies from the Australian Government. According to Article 2(3)(a) of the ICCPR, when a state party is found to have violated rights under the Covenant, it is obligated to provide effective remedies to the victims. This includes offering comprehensive compensation to individuals whose rights have been infringed, engaging in meaningful consultations with affected communities to assess their needs, continuously implementing necessary measures to ensure community members can continue to live safely on their respective islands, and monitoring and reviewing the effectiveness of these measures, addressing any deficiencies promptly (United Nations Human Rights Committee, 2022). The State party must also take steps to prevent similar violations in the future.

In addition, through its ratification of the Optional Protocol, a State has recognized the competence of the United Nations Human Rights Committee (2022) to determine whether there has been a violation. The State party further ratified Article 2 of its commitment to guarantee that all individuals within its territory and subject to its jurisdiction the rights recognized in the Covenant shall continue to enjoy them without discrimination or provide an adequate remedy when violations occur. The United Nations Human Rights Committee (2022) requests the State party to give effect within 180 days to its views and information on the action taken for forwarding such actions. Furthermore, the UNHRC requests that it be widely publicized and given publicity as well.

Apart from the above general obligations that need to be implemented under the treaty, specific measures are also of concern, particularly those that the Australian Government needs to advance promptly and adequately. This component includes both mitigation and adaptation measures. For adaptation measures, Australia needs to continue to implement an adaptation plan that ensures the long-term habitability of islands affected by climate change, and many of the actions in the Torres Strait Regional Adaptation and Resilience Plan identified for the period 2016-21 will need to be funded. Although the UNHRC does not specifically require Australia to implement a specific mitigation plan, it notes that Australia's promotion of the extraction and use of fossil fuels, particularly thermal coal for power generation, has resulted in high GHG emissions.

From the above analysis, UNHRC's main emphasis in its decision is on adaptive measures. In other words, the human rights framework is more adept at addressing adaptation issues than mitigation measures (Luporini, 2023). This is because the impacts of climate change on human rights are more direct and immediate in the context of adaptation (Hall and Weiss, 2012; Mayer, 2022; Heri, 2022). For example, rising sea levels and extreme weather directly threaten people's habitat, food and water resources, and adaptation measures can quickly mitigate these threats. In a

separate opinion, however, Zyberi points out another missing remedies in the decision. The mitigation measures are necessary within a general standard for due diligence under the ICCPR in climate change to reduce GHG emissions and adaptation measures to protect against the impacts of climate change (United Nations Human Rights Committee, 2022). The reasons why the mitigation measures must be addressed will be shown in section 4.3.2.

4.3.2 Emphasis on primary obligations over remedies in COSIS advisory opinion

In paragraph 284 of the COSIS Advisory Opinion, ITLOS deals with primary obligations under UNCLOS, in particular the responsibility of States to protect and preserve the marine environment (International Tribunal for the Law of the Sea ITLOS, 2024). The Advisory Opinion does not explicitly address the issue of remedies or compensation, but rather emphasizes the responsibility of States to fulfil the due diligence obligation. Article 235 of UNCLOS clarifies that States are responsible for fulfilling their international obligations to protect and preserve the marine environment and are liable under international law (International Tribunal for the Law of the Sea ITLOS, 2024). 'Responsibility' in this context refers to the primary obligation, while "assumption of responsibility" refers to the secondary obligation arising from the breach of the primary obligation (International Tribunal for the Law of the Sea (ITLOS), 2011). This emphasizes the attribution of responsibility to the State when it fails to fulfil its due diligence obligation. Consequently, the State is required to remedy for breach of the due diligence standard but does not go further to discuss specific remedial or compensatory mechanisms. Article 235 (2) of the UNCLOS provides that States shall ensure that adequate means of compensation or other relief are available under their legal systems for damage arising from marine pollution caused by natural or legal persons. This suggests that States are not only obliged to prevent pollution, but also to provide compensation or remedies for victims of pollution under their domestic legal framework.

The Advisory Opinion emphasizes the importance of States fulfilling their due diligence obligation. For example, ITLOS mentions that countries need to set national targets and action programs with maximum ambition to meet their international commitments to reduce emissions, based on the emission reduction targets of established treaties and their own national realities. The IPCC report states that to limit global warming to 1.5°C, the world must achieve net-zero emissions of carbon dioxide by 2050, and significantly reduce other greenhouse gases such as methane emissions (IPCC, 2023). International Tribunal for the Law of the Sea (ITLOS) (2024) also highlights that international agreements under the International Maritime Organization, the International Civil Aviation Organization, and the Montreal Protocol reflect global efforts to combat climate change, primarily through new GHG reduction targets.

Secondly, countries should adopt appropriate mitigation measures to achieve the established emission reduction targets. The COSIS Advisory Opinion, based on the provisions of the UNCLOS and other treaties, states that countries should achieve their emission reduction targets through mitigation measures (International Tribunal for the Law of the Sea ITLOS, 2024). According to Article 4.2 of the Paris Agreement, each Party shall meet the temperature and emissions targets in the agreement by developing, communicating, and consistently maintaining Nationally Determined Contributions, while implementing domestic mitigation measures. The IPCC states that ways to achieve these targets include reducing energy demand, advancing the decarbonization of electricity and other fuels, advancing the electrification of end-use energy, significantly reducing emissions from agriculture, and implementing some form of CO2 removal technology (Masson-Delmotte et al., 2018).

In addition, the provision of technical support and international cooperation by developed countries to developing countries is an important way to help countries achieve their emission reduction targets. Although developed countries are more responsible for ocean acidification and pollution, their help is more in the form of international cooperation and technical support than remedial measures (International Tribunal for the Law of the Sea ITLOS, 2024). Articles 202 and 203 of the UNCLOS emphasize that, through international cooperation and technical assistance, developed countries should help developing countries to prevent, reduce and control pollution of the marine environment associated with anthropogenic emissions of greenhouse gases (International Tribunal for the Law of the Sea ITLOS, 2024). ITLOS also notes that this obligation reflects the principles of 'common but differentiated responsibilities' and 'respective capabilities', emphasizing that wealthy countries should help countries with lesser capabilities (International Tribunal for the Law of the Sea ITLOS, 2024). It also notes that this obligation reflects the principles of "common but differentiated responsibilities" and "respective capabilities", emphasizing that rich countries should help countries with lesser capabilities to meet their environmental protection obligations.

In summary, ITLOS has concentrated on the State's responsibility to meet its due diligence requirements, rather than extensively addressing the remedies or liabilities associated with violations of such responsibilities. The remedies and compensation matters are examined thoroughly in certain case rulings.

4.3.3 Reflections on variability of remedies in the two cases

The reasons for not discussing mitigation measures as part of remedies in the main Decision of *Daniel Billy* et al. are as follows. Firstly, the human rights framework emphasizes that States have positive obligations towards the inhabitants of their territories and that adaptation measures are often local, with States taking direct action to protect the rights of their inhabitants (Luporini, 2023). Moreover, In the case of adaptation measures, causation and responsibility are relatively simple to determine. States need to be held directly responsible for the impacts of climate change within their territories (Ottavio, 2018). Finally, adaptation measures can provide immediate benefits and rapidly improve the living conditions of communities affected by climate change (Luporini, 2023).

However, mitigation measures are more appropriate as remedies for lagged damages and allocation of responsibility arising from climate issues, which was mentioned in the COSIS Advisory Opinion. While ITLOS does not discuss remedies in depth, the role of mitigation measures that extend from State obligations is that they can help States fulfill their due diligence

obligation. Firstly, mitigation measures address damages that arise in future contexts that are not necessarily in the short-term interests of the government in power (Sands, 2016), such as the Dutch government's position prior to the *Urgenda* was on the official position of the 'gold-plated' policy of the E.U. environmental directives: no effort would be made to go beyond the E.U. minimum standards unless it was in the 'vital Dutch interest' (Squintani et al., 2009). The latest judgement in *Urgenda* may force the Dutch government to reassume its environmental leadership role, at least on climate change mitigation issues. (The European parliament and the council of the European union, 2009). The Court ordered the Dutch government to adopt a policy of reducing emissions by at least 25 per cent from 1990 levels by 2020 instead of the currently projected 17 to 20 per cent reduction in Urgenda Foundation v. State of the Netherlands (2015).

Additionally, using mitigation measures is not only a way for countries to raise standards but also to promote further national responsibility for mitigating climate change hazards. Mitigation measures emphasize international cooperation and a high standard of due diligence obligation. In the Urgenda Foundation v. State of the Netherlands (2015) case, the Court rejected the government's argument that Dutch emissions have a negligible impact on global climate change, it did not accept methods of prorating liability for pollution. In addition, the Court referred to the Netherlands' emission reduction targets under the Kyoto Protocol, which indicated that the Dutch government had committed itself to implementing emission reduction measures that might be too high concerning its emissions (Urgenda Foundation v. State of the Netherlands, 2015). These elements suggest that even though the Netherlands' emissions may be small in global proportion, the Court found that the Dutch government is responsible for reducing greenhouse gas emissions and contributing to global climate action. This judgement emphasizes that even countries with small emissions must recognize their responsibility for global climate change (Van Zeben, 2015). Based on the above analysis, although Australia argues that not all climate harm suffered in the Torres Strait came from domestic contributions in *Daniel Billy* et al., the lack of long-term mitigation measures could also lead to a remedy. Totally, environmental degradation was scientifically based and predictable, requiring the State to take on more ambitious goals for remediation.

In the face of poor consideration of mitigation measures in climate litigation, national and international organizations should also make the following efforts. First, international organizations should advocate for incorporating the precautionary principle into customary international law and minimizing the adverse effects of climate change through the adoption of effective mitigation measures (International Tribunal for the Law of the Sea (ITLOS), 2011). There is also a need for countries to develop a consensus that simply following the temperature targets of the Paris Agreement will not fully address environmental problems such as ocean acidification (Roland Holst, 2022). The magnitude of the problem of ocean acidification reveals that the failure to address it directly through targeted measures, as well as the possibility of exacerbating the problem through mitigation strategies that increase the carbon sink in the oceans, underscores the need for concerted action under different frameworks. This emphasizes effectively integrating efforts between different regulatory regimes to address such environmental challenges (Roland Holst, 2022). The UNCLOS has re-emphasized its relevance as a framework for the governance of mitigation actions targeting ocean acidification by explicitly defining ocean CO2 uptake and ocean acidification as forms of marine pollution (Scott, 2020; Harrould-Kolieb, 2020). This approach not only contributes to broader climate change mitigation efforts but is also in line with the promoted goal of making the precautionary principal part of customary international law (Roland Holst, 2022).

Therefore, remedies for breaches of due diligence require both timely adaptation measures for short-term repair and preservation and a focus on mitigation measures at the international level. At the same time, countries need the most ambitious mitigation targets to create an emission gap.

5 Conclusion

The discourse surrounding the due diligence obligation in climate change litigation has evolved to encapsulate a comprehensive understanding of its theoretical and practical implications. Drawing on the insights from the COSIS Advisory Opinion and *Daniel Billy* et al., several consequential observations emerge that forecast the potential future of due diligence obligation within climate change mitigation and policy adaptation.

Firstly, the utilization of due diligence in *Daniel Billy* et al. and COSIS Advisory Opinion draws attention to the interrelationship between human rights and environmental law. This recognition serves as a turning point in due diligence obligation of a higher standard. The States and international organizations should consider how governments should act to diminish climate change damage or protect vulnerable areas. However, the varied application of due diligence across different legal frameworks highlights the necessity for more cohesively integrating the principles of international environmental law and human rights framework.

Secondly, by adopting a proactive and flexible approach to due diligence, the ITLOS has demonstrated a new way of dealing with environmental issues to the international community. By explaining the legal responsibilities through the latest technology and scientific data into a precedent for future legal interpretation, the ITLOS can be said to be both ahead of its time in terms of flexibility and in line with the characteristics of climate change – persistent and cumulative. In the process, the law changes and develops in response to changes in environment and technology.

In addition, the COSIS advisory opinion and *Daniel Billy* et al. demonstrate the critical importance of the advisory role to the UNHRC and the ITLOS in the development of a global framework of environmental and human rights law. This is because it helps to bridge the gap between jurisdictions and thus contributes to more effective and equitable governance of particular climate change issues on a global scale.

In sum, the exploration of due diligence in climate change litigation and advisory opinions suggests a shift towards a more integrated and proactive legal approach to environmental issues on a broader scale. As the climate legal framework continues to evolve,

the principle of due diligence promises to be central to guiding State action and ensuring that environmental and human rights protections are comprehensively addressed.

Author contributions

SL: Writing – review & editing, Writing – original draft.

Funding

The author(s) declare that no financial support was received for the research, authorship, and/or publication of this article.

Acknowledgments

During the writing process, OpenAI's ChatGPT (version 4.0) was used to assist with language polishing, including sentence structure optimization and terminology standardization. The final content was further reviewed and edited by the author to ensure academic rigor and originality.

Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

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