

INDONESIA'S ROLE IN THE CORAL TRIANGLE INITIATIVE TO MAINTAIN SEAFOOD SECURITY AMID CLIMATE CHANGE FROM THE PERSPECTIVE OF LIBERALISM

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Abstract

Climate change has brought significant impacts on marine ecosystems and global food security, especially for maritime countries like Indonesia. In facing this challenge, Indonesia is actively involved in the Coral Triangle Initiative (CTI), a regional multilateral framework that aims to conserve marine biodiversity and strengthen sustainable management of marine resources. This research analyzes Indonesia's role in the CTI as a strategy to maintain national seafood security amid the climate crisis, using a liberalism theory approach. This research uses a descriptive qualitative approach with literature study method as the main data collection technique and case study as the data analysis technique. This study aims to analyze Indonesia's role in the Coral Triangle Initiative (CTI) in maintaining seafood security amid climate change, based on the perspective of liberalism. The results of this study show that Indonesia positions the Coral Triangle Initiative as a means of multilateral cooperation in line with the principles of liberalism, by emphasizing the importance of international collaboration, environmental diplomacy, and local capacity building in maintaining seafood sustainability. This initiative plays a role not only in conserving marine ecosystems, but also in strengthening food security through inclusive and cooperation-based resource governance. Thus, Indonesia's involvement in the CTI demonstrates that the principles of liberalism can foster effective regional collaboration in facing the climate change crisis and maintaining seafood sustainability.

Keywords: Indonesia, Coral Triangle Initiative, seafood security, liberalism

INTRODUCTION

The impact of climate change on marine ecosystems and global food security has become a crucial issue in recent decades, with significant implications for human life and

planetary sustainability. Rising ocean temperatures, increased ocean acidification and changing ocean current patterns have disrupted the balance of marine ecosystems and exacerbated the vulnerability of marine living resources, including coral reefs and fish stocks that form the backbone of marine food security (Hoegh-Guldberg et al., 2019). Coral reefs, mangrove forests and seagrass beds, which are essential ecosystems that provide habitats for many marine species and serve as natural bulwarks against coastal erosion, are severely degraded. The damage to these ecosystems not only reduces biodiversity, but also threatens the fisheries resources on which millions of people depend. The dependence of coastal communities on marine products makes the climate crisis a direct threat to access and availability of seafood, which in turn impacts the social and economic stability of coastal areas (FAO, 2021).

For a maritime nation like Indonesia, which has the second-longest coastline in the world and relies heavily on marine resources, this impact is all the more profound. The fisheries and marine sector is the backbone of the economy and the main source of protein for the people. Declining fish stocks, changes in the migration of marine species, and an increase in the frequency and intensity of natural disasters such as high waves and storms due to climate change, directly threaten the livelihoods of fishermen and national seafood security. Therefore, mitigation and adaptation efforts to the impacts of climate change on marine ecosystems and marine food security are urgent priorities for Indonesia, demanding a comprehensive approach involving various parties both at the domestic and international levels. In facing this challenge, Indonesia as a country with the second longest coastline in the world needs to take strategic steps in the sustainable management of marine resources. One of the efforts made is by actively participating in the Coral Triangle Initiative (CTI), a multilateral framework that focuses on conserving marine biodiversity and strengthening marine governance collaboratively. Through this approach, Indonesia not only contributes to environmental conservation, but also to strengthening national seafood security amidst the dynamics of climate change.

The Coral Triangle region is one of the world's richest marine biodiversity hotspots, spanning the waters of six countries: Indonesia, Malaysia, the Philippines, Papua New Guinea, the Solomon Islands and Timor Leste. The region covers only about 1.6% of the global ocean area, yet is home to more than 500 species of coral reefs and 3,000 species of fish, making it the most biologically rich marine ecosystem in the world (Veron et al., 2009), making it an

unparalleled center of marine biodiversity. The existence of these highly productive marine ecosystems, including coral reefs, mangroves, seagrass beds and abundant fishing grounds, plays a crucial role not only in maintaining global ecological balance but also in sustaining the lives of millions of coastal communities. Millions of coastal communities rely on fisheries, marine tourism and other ecosystem services generated by the region's marine biodiversity (Gomez et al., 2020).

For coastal communities in the Coral Triangle countries, the ocean is a major source of livelihood. Capture fisheries, mariculture, marine tourism and many other economic activities depend on the health of the region's marine ecosystems. Abundant fish resources provide essential protein and livelihoods for more than 120 million people. In addition, coral reefs also serve as natural fortresses that protect coastlines from erosion and storms, and are a major attraction for the tourism industry that creates jobs and income. Therefore, the degradation of marine ecosystems in the Coral Triangle, further exacerbated by climate change, overexploitation and pollution, threatens not only the priceless wealth of biodiversity, but also the food security, economic well-being and social stability of the coastal communities that depend on them. Pressures from human activities such as overfishing, habitat destruction, and global climate change threaten the sustainability of these ecosystems and the livelihoods of local communities (Siregar & Sari, 2022). The importance of these areas demands comprehensive, collaborative and effective conservation and sustainable management efforts.

In the face of complex challenges posed by climate change and degradation of marine ecosystems, regional cooperation is increasingly vital, especially in biodiversity-rich and highly vulnerable regions such as the Coral Triangle. To address these threats and ensure the sustainability of marine resources, six countries in the region, including Indonesia, formed the Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF) or better known as the Coral Triangle Initiative (CTI). This regional multilateral initiative was established with the main objective of conserving marine biodiversity and strengthening sustainable management of marine resources, while maintaining food security and the welfare of coastal communities. The CTI serves as an important example of how regional cooperation can be carried out through multilateral and community-based approaches in an effort to conserve marine ecosystems and improve food security (CTI-CFF, 2021).

The CTI serves as a strategic framework that facilitates collaboration across national

borders in marine resource conservation and management efforts. Through this platform, member countries are committed to sharing knowledge, experience and best practices in addressing critical issues such as climate change, unsustainable fishing practices and marine pollution. Within the CTI framework, Indonesia has consistently worked to strengthen inclusive and sustainable resource governance. The Indonesian government has taken decisive steps to crack down on illegal vessels and reform fisheries regulations to encourage more responsible practices. Furthermore, Indonesia strongly emphasizes the involvement of local communities and fishers in marine resource management. Enhanced regional cooperation through the CTI is key to developing innovative and coordinated solutions, which are impossible to achieve by one country alone. By emphasizing the principles of good governance, active stakeholder participation and an ecosystem-based approach, the CTI seeks to create strong synergies to achieve conservation and sustainable development goals in one of the world's most important marine ecosystems.

Furthermore, this research also aims to understand the dynamics of multilateral cooperation established through the CTI by using a liberalism theory approach. This approach is used to examine how principles such as international collaboration, environmental diplomacy, and local capacity building become the basis for the implementation of policies and programs run by Indonesia within the CTI framework. Another objective is to evaluate the effectiveness of the Coral Triangle Initiative as a regional cooperation platform in creating inclusive and adaptive marine governance. This research wants to see how the CTI contributes to the conservation of marine ecosystems while strengthening the food security of coastal communities through community-based approaches and cross-border cooperation. Thus, in general, this research aims to contribute to the development of international relations and marine environmental governance studies, especially in the context of Indonesia's involvement in regional cooperation forums based on the principles of liberalism in facing the global challenges of climate change and seafood sustainability.

METHODOLOGY

This research uses a descriptive qualitative approach to analyze Indonesia's role in the Coral Triangle Initiative (CTI) as a strategy for marine food security amid climate change. Literature study is the main method, by reviewing official CTI-CFF documents, national

policies, academic journals, as well as reports from international organizations such as FAO and UNDP.

Data analysis was conducted through content analysis techniques based on liberalism theory, to identify the principles of international collaboration, non-state actor participation and environmental diplomacy. This approach was chosen because it is able to explain the complexity of multilateral cooperation dynamics in a contextual and interpretative manner, and assess the real contribution of the CTI to sustainable marine governance.

RESULTS AND DISCUSSION

In the context of facing the climate change crisis and global food security challenges, Indonesia's role in the Coral Triangle Initiative (CTI) is very significant, especially in maintaining national seafood security. The Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) is a regional multilateral framework formed in response to critical threats to marine and coastal ecosystems in the Coral Triangle region. The CTI organizational structure consists of a Regional Secretariat based in Manado, Indonesia, which acts as the coordinating and liaison body. The Ministerial Council is the highest decision-making body, and the Senior Officials' Committee oversees program implementation.

Since its establishment in 2009, the overall achievements of the CTI have been significant. These include increased global awareness of the importance of the Coral Triangle, the development of Regional and National Action Plans by member states, the designation of thousands of hectares of new marine protected areas, and technical capacity building for stakeholders across the region. The CTI has successfully facilitated a unique platform for collaboration and driven high-level political commitment to marine conservation in one of the world's most vital regions. This research specifically analyzes how Indonesia has positioned the CTI as a means of multilateral cooperation in line with the principles of liberalism, where the emphasis on international collaboration, environmental diplomacy and local capacity building are key in maintaining seafood sustainability. The findings not only confirm that the initiative contributes to the conservation of marine ecosystems, but also directly strengthens food security through inclusive and cooperation-based resource governance. The novelty of this research lies in the use of a liberalism theory approach to deeply analyze Indonesia's involvement, demonstrating that liberalism principles are effectively able to foster adaptive

and effective regional collaboration in responding to the climate change crisis and ensuring seafood sustainability amid global uncertainty.

A. Indonesia's Role in Coral Triangle Initiative

As the largest archipelago with a vast coastline and located at the heart of the Coral Triangle, Indonesia plays a central and strategic role in the Coral Triangle Initiative (CTI). Indonesia's active involvement in the CTI is not only a form of commitment to the conservation of global marine biodiversity, but also a reflection of national interests in maintaining marine food security and the sustainability of marine resources. As one of the main initiators of this initiative since its launch in 2009 at the first CTI Ministerial Summit held in Manado, Indonesia has shown a high commitment in promoting marine conservation based on multilateral cooperation. Indonesia's high commitment in promoting multilateral cooperation-based marine conservation, as mentioned in the paragraph, is a manifestation of the liberal idea that peace and prosperity can be achieved through interdependence and cooperation. Indonesia has been the initiator and prime mover in various CTI programs and projects, ranging from the establishment of marine protected areas, sustainable fisheries management, to climate change adaptation at the local level. This leadership role is crucial given the ecological and socio-economic significance of the Coral Triangle region for Indonesia and other member countries. With a marine area that covers more than two-thirds of the country's territory and most of the Coral Triangle area, Indonesia has an ecological and strategic responsibility in ensuring the successful implementation of CTI programs (CTI-CFF, 2021). Indonesia's national interest in maintaining marine food security and sustainability of marine resources, which is fulfilled through the CTI, underscores that international cooperation can serve domestic interests without having to sacrifice sovereignty, a core concept in liberal thought.

Within the CTI framework, Indonesia has implemented various policies and programs that are aligned with the goals of this initiative. These include the development of national action plans for conservation and management of marine resources, strengthening the capacity of coastal communities, as well as the application of environmentally friendly technologies in the fisheries sector. Indonesia's development of national action plans, strengthening the capacity of coastal communities, and the application of environmentally friendly technologies

within the CTI framework are clear examples of how countries can work together cooperatively within international institutions to achieve global sustainability goals, in line with the views of liberalism. Indonesia's commitment is also evident from its active participation in ministerial meetings, technical working groups, and regional forums organized by the CTI. Indonesia's active participation in CTI ministerial meetings, technical working groups, and regional forums reflects the liberal belief that multilateral dialog and diplomacy are key to addressing complex environmental challenges. Through these efforts, Indonesia seeks to ensure that marine resource management is comprehensive, integrated and involves all stakeholders, from the central government to indigenous coastal communities. In addition, Indonesia also hosts the CTI- CFF Regional Secretariat in Manado, signaling trust and recognition of Indonesia's environmental diplomacy capacity in the region (Siregar & Sari, 2022). This comprehensive, integrated and multi- stakeholder approach to marine resource management, from central government to indigenous communities, demonstrates Indonesia's commitment to inclusive governance, an aspect valued in liberal thinking that emphasizes participation and legitimacy.

More than just participation, Indonesia's role in the CTI is also clear evidence of how the principles of liberalism, such as international cooperation, environmental diplomacy, and capacity building, can be implemented to achieve common goals. Indonesia has consistently encouraged collaboration among CTI member countries, sharing best practices and facilitating knowledge exchange in the face of complex challenges such as climate change and overexploitation of marine resources. Indonesia's role in the CTI reflects a collaborative approach that emphasizes the importance of international cooperation, civil society participation, and environmental diplomacy. Indonesia's approach is inclusive and cooperative, in that it not only seeks to protect national ecological interests, but also strengthen regional solidarity with other member states through capacity building, joint training, and technology transfer (Rochidi, 2019).

Through its engagement, Indonesia encourages inclusive marine governance, not only based on national interests, but also taking into account the principles of regional solidarity and capacity building of other member states. Thus, Indonesia's involvement in the CTI not only contributes to the achievement of conservation and sustainability targets at the regional level, but also significantly strengthens national seafood security amid the growing threat of climate crisis. Indonesia's involvement in promoting inclusive marine governance, going

beyond national interests to consider the principles of regional solidarity and capacity building of other member states, underscores the liberal ideal that countries can move beyond narrow egoism for the common good. Indonesia's participation in the CTI not only contributes to regional conservation targets but also strengthens national seafood security, illustrating how liberal mechanisms of cooperation can simultaneously serve domestic and global interests, creating a win-win situation.

The most significant contribution is the establishment and management of extensive Marine Protected Areas (MPAs) in Indonesian waters, in line with the CTI's target of creating an effective MPA network. Indonesia's establishment of an extensive MPA network, in line with CTI targets, is a concrete example of how countries can contribute to the provision of global public goods (marine conservation) through multilateral cooperation, a centerpiece of the liberal approach to global governance. Examples include the designation of Raja Ampat, Komodo National Park and Wakatobi MPAs, which are globally recognized as successful conservation sites. This effort to establish a network of Marine Protected Areas (MPAs) such as those in Raja Ampat and Wakatobi is not only an ecological act, but also a diplomatic one (Clifton, Majors, & Subijanto, 2018). This Ocean and Coastal Management research shows that Indonesia is using marine conservation as a “soft power” tool in projecting regional leadership on ocean and climate change. Specific conservation projects led or supported by Indonesia, such as the post-tsunami coral reef rehabilitation program or the sea turtle rescue initiative, demonstrate a real commitment to maintaining the health of marine ecosystems (Andriani and Rustinsyah, 2021). Beyond conservation, Indonesia's involvement in the CTI also has a strategic dimension in regional diplomacy. Indonesia utilizes the CTI as a platform to promote its sustainable development agenda, expand its marine geopolitical influence, and strengthen its bargaining position in negotiations on global climate change and food security issues. The utilization of the CTI as a strategic platform to promote the sustainable development agenda and strengthen Indonesia's bargaining position on global issues underscores the liberal belief that international institutions are important arenas for diplomacy, negotiation, and norm formation that benefit all parties. Thus, the CTI is not only a technocratic instrument, but also a strategic means for Indonesia to exercise its leadership role in regional environmental issues that intersect directly with national interests.

B. Indonesia's Contribution to Seafood Security

Indonesia's contribution to seafood security is vital, given its role as the world's largest maritime nation with abundant marine resources. Marine and coastal areas are the backbone of animal protein provision for the majority of Indonesia's population, as well as the main source of livelihood for millions of coastal and fishing communities. In this context, Indonesia's contribution to seafood security includes efforts to manage sustainable fisheries resources, protect marine ecosystems, and empower coastal communities to strengthen local-based food security (FAO, 2020). Therefore, Indonesia's efforts in maintaining the sustainability of marine resources directly impact national food security. Through various policies and programs, the Indonesian government is committed to ensuring the availability, accessibility and stability of food supply from the sea, amidst the threats of climate change and unsustainable fishing practices.

The programs of the Ministry of Maritime Affairs and Fisheries (MMAF), including the measured fishing policy and protection of marine conservation areas, directly strengthen the stability of seafood (Purwanto, H., Arifin, Z., & Darmawan, F. 2021). This review reinforces the argument that fisheries sustainability is a key strategy to avoid a crisis in the supply of animal protein from the ocean amid overexploitation and climate change. Programs such as metered fishing and protection of marine protected areas, which directly strengthen the stability of ocean-based food, affirm the liberal view that effective regulation and shared resource management are key to averting crises and achieving mutual gains at both national and global scales.

In the context of the Coral Triangle Initiative (CTI), Indonesia's contribution to seafood security is realized through a series of strategic initiatives (CTI-CFF, 2021; Ministry of Marine Affairs and Fisheries, 2022). One of them is the development and implementation of sustainable fisheries management. Such as the measured fishing program (PIT). This program is a strategic policy of KKP to maintain a balance between the utilization and conservation of fish resources. In PIT, catch quotas, fishing zones, and fishing seasons are set that consider the carrying capacity of the environment. The aim is to reduce overpressure on fish stocks and ensure long-term availability (KKP, 2023). KKP has designated more than 284 marine protected areas (up to 2023), including Raja Ampat, Wakatobi, and other Marine National Parks, as part of the MPA (Marine Protected Areas) network to conserve ecosystems of coral

reefs, seagrass beds, mangrove forests, and fish spawning habitats (KKP, 2022). Coastal ecosystem restoration programs are also developed with coral reef rehabilitation, mangrove replanting, and the construction of community-based hatcheries (UNEP-WCMC & KKP, 2020) for spawning, larval rearing, and coastal protection (Yusron, E. 2021). To reduce pressure on wild-caught fish stocks, while improving coastal economies, sustainable mariculture programs are being implemented (MMAF, 2023; FAO, 2020).

Through the CTI, Indonesia is committed to implementing fisheries governance practices that are inclusive, ecosystem-based and adaptive to climate change. This approach is not only aimed at conserving fish stocks and their supporting ecosystems, but also ensuring long-term availability of seafood for future generations (CTI-CFF, 2021). Indonesia's commitment to implementing inclusive, ecosystem-based, and adaptive fisheries governance practices through the CTI, as well as engaging local communities, strongly supports the liberal principles of the importance of legitimacy, broad participation, and flexibility in addressing complex challenges such as climate change and ensuring a sustainable food supply for future generations. In addition, Indonesia is also active in protecting and rehabilitating coastal ecosystems such as coral reefs and mangroves, which play an important role as spawning and nursery areas for various fish species, thus supporting the sustainability of future fish supplies. These efforts are in line with the principle of inclusive conservation, involving local communities in the management of their resources.

At the national level, Indonesia has developed various policies such as the National Plan of Action for Coral Triangle Initiative, Fisheries Management Plan, and community-based sustainable fisheries programs such as Kampung Nelayan Maju and People's Fisheries (KKP, 2021). These programs are directed at increasing the capacity of coastal communities to utilize marine resources responsibly and sustainably, while strengthening access to safe and affordable seafood (KKP, 2021). Through this policy, Indonesia is not only protecting the marine ecosystem, but also building food security from the grassroots. This approach is in line with the findings of (Pomeroy et al. 2016) which emphasize the importance of community-based fisheries governance in ensuring the sustainability of marine resources and strengthening food security at the local level. Empowering coastal communities through training, access to technology and strengthening local institutions has been shown to increase community involvement in marine management and reduce exploitation pressure on coastal and marine

ecosystems (Purwanto & Susanto, 2020). In addition, policies such as Kampung Nelayan Maju contribute to promoting inclusivity and access to safe and affordable seafood, in line with the rights-based approach to food as promoted by FAO (2020). The program not only aims at increasing catches, but also addresses the challenges of distribution, supply stability, and adaptation to the impacts of climate change, demonstrating liberal thinking that prioritizes holistic and anticipatory solutions to complex, interrelated problems at both local and global levels.

Indonesia is also strongly committed to building the capacity of coastal communities to adapt to the impacts of climate change, which directly affects seafood availability. Programs such as livelihood diversification, development of climate-resilient fisheries technology, and provision of climate information for fishers aim to reduce their vulnerability (KKP, 2021). The provision of climate information to fishers and the emphasis on the importance of information access, local capacity and social networks for climate change adaptation, underscores the liberal belief in the role of knowledge and social connectivity in building resilience to global challenges. Research by Cinner et al. (2018) also shows that successful climate change adaptation in the marine sector relies heavily on local capacity, social networks and access to information. By positioning the CTI as a means of multilateral cooperation in line with the principles of liberalism, Indonesia not only seeks to address the climate crisis and preserve marine ecosystems, but fundamentally strengthen marine food security. This demonstrates that through effective regional collaboration and cooperation-based resource governance, seafood security can be achieved and sustained for generations to come.

Indonesia's contribution in maintaining seafood security also shows a strong dimension of environmental diplomacy. In various international forums such as the UN Ocean Conference and Our Ocean Conference, Indonesia has actively raised the issue of the linkages between ocean, climate change and food security. This approach shows that Indonesia is not only focusing on domestic interests, but also encouraging global cooperation in addressing transnational challenges of seafood security. The importance of the role of maritime nations in pushing the ocean sustainability agenda through multilateral forums. Indonesia as a key actor in the Asia-Pacific region in building maritime collaboration based on inclusive and adaptive governance. With its involvement in the Coral Triangle Initiative (CTI), Indonesia demonstrates how environmental diplomacy can be directly linked to regional

seafood security architecture (Tan, A. C. 2018). Through national policy synergies and regional cooperation such as the CTI, Indonesia plays an important role in strengthening the seafood security architecture in the Asia-Pacific region.

Meanwhile, Rachmawati et al. (2021) in a national study highlighted that Indonesia's current foreign policy is not only oriented towards energy and economic security, but also towards marine diplomacy as a response to climate change. They noted how Indonesia used forums such as the Our Ocean Conference Bali 2018 to emphasize its commitment to marine conservation and strengthening transboundary seafood governance. In addition, the formation of a coalition of Coral Triangle countries is highly relevant to fight for access to climate finance from international institutions to strengthen ecosystem-based adaptation programs, as recommended by the CTI-CFF (2021). Indonesia can also initiate a joint early warning system based on satellite data to monitor marine food insecurity developed in partnership with global organizations such as FAO and UNEP, to improve preparedness for marine and coastal crises (FAO, 2022; UNEP, 2021). This strategy not only strengthens national capacity, but also extends Indonesia's leadership in transnational seafood governance.

C. Liberalism's Analysis of Indonesia's Role

The liberalism approach offers a strong analytical framework to understand the motivations and dynamics behind Indonesia's role in the Coral Triangle Initiative (CTI) in maintaining seafood security amid climate change. In contrast to realist views that emphasize national interests and military power, liberalism highlights the importance of international institutions, cooperation between states, and the role of non-state actors in addressing global problems. In the study of international relations, the liberalism approach emphasizes the importance of cooperation between states, international institutions, and non-state actors in maintaining global peace, security, and development. The principles of liberalism such as interdependence, shared governance, multilateral diplomacy, and the role of civil society are very relevant in analyzing Indonesia's role in the Coral Triangle Initiative (CTI). In this context, Indonesia's active involvement in the CTI can be seen as a manifestation of liberal principles, where shared interests in preserving marine ecosystems and maintaining food security encourage countries to collaborate across sovereign boundaries. The concept of ecosystem-based fisheries/ecosystem-based marine diplomacy

emphasizes the importance of fisheries management that considers the functioning of the ecosystem as a whole - from fish stocks to habitats and climate pressures (Rodriguez-Perez et al., 2023). In this sense, marine diplomacy allows countries like Indonesia to use the ocean as a geopolitical instrument as well as a tool for climate adaptation and food security (Gaora et al., 2023).

From the perspective of liberalism, Indonesia's decision to participate and take a leadership role in the CTI is based on the belief that transboundary environmental problems such as climate change and marine degradation cannot be solved unilaterally. Instead, collective efforts and strong institutions are needed to facilitate effective policy coordination and implementation. The results show that Indonesia positions the CTI as a means of multilateral cooperation that emphasizes the importance of international collaboration, environmental diplomacy and local capacity building. This is in line with the liberal view that through dialogue, negotiation and the establishment of shared norms, countries can achieve positive-sum game outcomes and overcome complex challenges. As Keohane and Nye (1977) explain in *Power and Interdependence*, countries can achieve mutual benefits through international institutions that facilitate cooperation and reduce transaction costs. In the context of CTI, Indonesia not only demonstrates a normative commitment to the protection of marine ecosystems, but also strengthens its strategic position in global environmental diplomacy. Through environmental diplomacy, Indonesia actively initiated the formation of the Regional Plan of Action and established the CTI-CFF Regional Secretariat in Manado, as a symbol of commitment to multilateral cooperation mechanisms (CTI-CFF, 2021). The successful establishment of the regional secretariat in Manado and the Regional Plan of Action initiative are concrete symbols that multilateral cooperation can be an effective solution to transnational and complex environmental challenges.

Liberalism's analysis of Indonesia's role in the CTI also highlights the important role of non- state actors, such as civil society organizations, scientists, and the private sector, in pushing the sustainability agenda. Indonesia's involvement in the CTI, which emphasizes inclusive and cooperation-based resource governance, reflects liberal values that promote broad participation and participatory decision-making. National programs such as strengthening fishing villages, coastal area conservation, and community-based

fisheries are concrete forms of civil society involvement in maintaining marine food security. This model shows consistency with the principles of liberalism that emphasize the importance of participatory decision-making and bottom-up governance. Initiatives such as Desa Nelayan Mandiri or community-based ecotourism programs facilitated by local and international NGOs such as WWF, CI, and The Nature Conservancy, show that environmental protection does not have to be monopolized by the state, but can be achieved through cross-sector strategic alliances. This reinforces the idea that environmental and food security cannot only be achieved through a state-centric approach, but through mutually beneficial cross-sector and cross-country cooperation (Rochdi, 2019). Through an inclusive and participatory liberal approach, Indonesia not only acts as a state actor in the CTI multilateral scheme, but also as a driver of cross-sectoral cooperation by giving large space to non-state actors. This strategy strengthens social-ecological resilience and reflects adaptive, equitable and collaborative environmental governance practices. In the long term, this approach is an important foundation for transforming Indonesia's ocean governance towards a sustainable model based on community and international networks.

Therefore, this research confirms that the principles of liberalism, with its focus on interdependence, institutions, and cooperation, are able to explain why and how Indonesia effectively encourages regional collaboration in dealing with the climate change crisis and maintaining seafood sustainability, proving the relevance of this theory in understanding the dynamics of international environmental policy. Principles of liberalism such as interdependence, international institutions and multilateral cooperation are important pillars in explaining Indonesia's role in encouraging regional collaboration to address climate change and maintain seafood sustainability through the CTI. This approach reflects liberal institutionalism, as explained by Robert Keohane (1984) in *After Hegemony*, that international institutions can facilitate cooperation even without the dominance of one hegemonic power, by reducing uncertainty, increasing transparency, and shaping shared expectations.

In the context of global challenges such as climate change and the ecological crisis, this liberal approach provides a strong basis for understanding how regional cooperation can contribute to food security and the sustainability of marine ecosystems through

collective, participatory and diplomatic principles. According to Underdal (2010), the effectiveness of the global environmental regime depends on problem-structure and institutional design. The CTI as a regional multilateral framework demonstrates an institutional design that is adaptive to local needs while remaining aligned with global agendas, such as the Sustainable Development Goals (SDGs), particularly SDG 13 (climate action), SDG 14 (marine ecosystems) and SDG 17 (global partnership). Thus, the liberal approach not only explains the rational actions of states in forming strategic alliances, but also underscores the importance of norms, shared values and institutional capacity in creating sustainable environmental governance. The CTI provides concrete evidence that regional institutions can play a key role as a link between national policies and global commitments, driven by the principles of transparency, accountability and collaboration across actors. The relevance of liberalism in this context is even stronger when looking at the success of CTI in creating a cross-sector technical and diplomatic cooperation network that supports participatory and inclusive marine conservation.

CONCLUSION AND RECOMMENDATIONS

Indonesia plays a strategic role in the Coral Triangle Initiative (CTI) as an initiator, diplomatic leader, and driver of regional collaboration to maintain marine food security amid climate change. This approach is in line with the principles of liberalism through multilateral cooperation, shared governance and civil society engagement. The CTI has proven effective in promoting sustainable management of marine resources and strengthening Indonesia's position in global environmental diplomacy. To increase impact, cross-sector policy integration, strengthening program evaluation, and optimizing the role of coastal communities through green technology, blue economy innovation, and utilization of international platforms are needed.

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