

Politics and Policy on Ocean Governance: The Need to Develop an Educational Curriculum Framework for Ocean Governance in Small Island Developing States such as the Maldives

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Abstract

‘Ocean governance and sustainable development: Issues and challenges’ are an unexplored, undeveloped field of great importance to the Republic of Maldives being an ocean state, comprising 99 percent water and driving 60 percent of the country's Gross Domestic Product (GDP) from it. The country is faced with a wide range of maritime security challenges involving maritime crimes known as ‘blue crimes’ with potentials to impact lives, political stability, economy and national security. These illicit activities such as maritime terrorism and extremist violence at sea are driven for achieving political objectives by non-state actors; interstate rivalries and disputes focusing on state actors, who pursue strategic national interests. Other security challenges posing a risk to the country relates to Illegal, Unreported and Unregulated Fisheries (IUU), Piracy, Drug trafficking, climate change, marine pollution, coastal and marine ecosystem conservation. Analysis of interviews with (3) specialists of ocean governance in the Maldives and (7) stakeholders on the progress and challenges of ocean governance in the Maldives reveals the existing gaps and challenges in the legal framework and enforcement of laws related to various aspects of ocean governance. Through a series of preparatory meetings and the outcome of one-day conference with stakeholder presentations and engagements on identifying the issues and challenges of ocean governance relevant to each institution. The findings of this research will be useful in determining the issues and challenges faced by other Small Island States such as Maldives and have implications for introducing Transformative Ocean Governance into the educational curriculum of other Small Island Developing States. The paper calls for strengthening governance, adopting a human rights-based approach to ocean governance, enhancing capacity and focusing on evidence-based research on ocean governance to address the challenges and realizing the achievement of Sustainable Development Goal 14 Life Below Water.

Keywords

Ocean Governance; Blue crimes; Illegal, Unreported and Unregulated Fisheries; Piracy; Drug trafficking; Maritime terrorism and extremist violence; Climate change; Marine pollution; Coastal and Marine ecosystem conservation Raaje Initiative; Transformative Ocean Governance; Educational curriculum framework for Ocean governance, Rights Based Approach to Ocean Governance, SDG 14: Life Below Water.

Abbreviations

EEZ: Exclusive Economic Zone

FAO: Food and Agricultural Organization

IMO: International Maritime Organizations

IOC: Intergovernmental Oceanographic Commission

IUU: Illegal, Unreported, and Unregulated fishing

MMFRA: Ministry of Fisheries, Marine Resources and Agriculture

MNDF: Maldives National Defence Force

TOG: Transformative Ocean Governance

UNCLOS: United Nations Convention on Law of the Sea

UNEP: United Nations Environment Program

UNESCO: United Nations Education and Scientific Cultural Organization

UNESCO: United Nations Education and Scientific Cultural Organization

UNODC: United Nations Office on Drugs and Crime

Introduction

The Republic of Maldives is an archipelagic chain of coral atolls, consisting of 1,192 Islands scattered across the country and divided into 26 natural atolls. However, a scientific study by Naseer and Hatcher (2004)¹ reveals that the structural make up of Maldives comprises of 16 complex atolls, five oceanic faros and four oceanic platform reefs² and has the seventh

¹ Naseer, A., and Hatcher, B. 2004. Inventory of the Maldives' coral reefs using morphometrics generated from Landsat ETM+ imagery. *Coral Reefs* 23(1), pp. 161-168.

² Ministry of Environment and Energy, (2015). *Fifth National Report of Maldives to the Convention on Biological Diversity. Maldives:* Ministry of Environment and Energy.

largest coral reef systems in the world spanning across 8900 km²³. The land area of Maldives spans to 115,300km²⁴ and the Exclusive Economic Zone (EEZ) of the Maldives extends to 859,000 sq. km⁵. Regardless of this, “Ocean Governance and Sustainable Development: Issues and challenges” is an unexplored, underdeveloped field, and is highly relevant for the Maldives. Being an ocean state, comprising 99 percent water and driving 60 percent of the country’s Gross Domestic Product (GDP), oceans are deeply embedded in the life of Maldivians and all major industries of Maldives namely tourism, fisheries, and shipping is directly dependent on safe and healthy oceans. Any disruption to the surrounding seas of Maldives either by insecurity, pollution, depletion of marine resources or impacts of climate change can have extreme consequences to the blue economy of Maldives and livelihoods in the environmentally fragile islands.

The ocean comprises 70 percent of the earth and transcends to five major oceans in the world and a multitude of sub-regions that flow from seas to bays. It is without any contest that oceans are the lungs of the earth as it the primary regulators of the global climate while supplying half of the oxygen we breathe and absorbing a third of the carbon dioxide we produce. For humans, the oceans provide an abundant source of food, jobs, and energy. Humans are dependent on the ocean for their main source of protein and millions of others obtain their livelihoods from the sea.

In the Maldives the major economic activities such as tourism, fisheries, and trade depend on the health of oceans. The ocean is the primary regulator of the global climate while supplying half of the oxygen we breathe and absorbing a third of the carbon dioxide we produce. Furthermore, the oceans consist of a wealth of hydrocarbon and mineral resources and “the sea bed hosts a lot of mineral resources, sand and gravel, phosphorite, sulphur, coal oil and gas manganese nodules and sulphide nodules”⁶ (p.1). While much of benefits of the continental shelf is yet to be explored, it is important to consider that 80 percent of International trade is transported by a countless sea-lane⁷. This makes ocean governance to be of bedrock of all development activities for a SIDS, such as the Maldives.

The Article 22 of the Constitution of the Maldives stipulates that “the State has a fundamental duty to protect and preserve the natural environment, biodiversity of the country for the benefit of present and future generations. The State shall undertake and

promote desirable economic and social goals through ecologically balanced sustainable development and shall take measure necessary to foster conservation, prevent pollution, the extinction of any species and ecological degradation from any such goals”⁸ (p.5). Although Maldives lacks a central integrated policy and an umbrella law on ocean governance, it has sectorial laws that administer on a secretarial basis ocean governance relevant to the particular authority and entrusted its mandate by a specific statutory act or law. The first progressive measure, the Government of Maldives took in governing the ocean waters that fall within the sovereign territory and EEZ was the domestication of the UN Convention on Law of the Sea (UNCLOS) in 1996 by introducing Maritime Zones of Maldives Act No. 6/96. According to this, Article 4 declared the Territorial sea within 12 nautical miles measured from the archipelagic baselines and Article (6) declared Exclusive Economic Zone “as maritime area adjacent to and beyond the territorial sea ... with the seabed thereof up to 200 nautical miles measured from the archipelagic baselines”⁹ (paragraph 5). It also included 19 articles and describes the concepts on territorial sea as defined in UNCLOS, namely archipelagic seas, EEZ, and delimitation of overlapping Maldives economic zones with other countries.¹⁰ Furthermore, the introduction of the Law No. 14/2019 Maldives Fisheries law¹¹ allowed Maldives Security Forces to detain vessels that were engaged in Illegal, Unreported, and Unregulated fishing (IUU).

The most pressing issue in managing ocean governance in the Maldives is the lack of an umbrella act that can bring together all the actors and institutions responsible for various aspects related to ocean governance in the country to ensure integrated, coordination, law enforcement efforts. This situation leads to a duplication of tasks, wastage of limited resources, and lack of cooperation among stand-alone institutions and agencies. This Piecemeal-type sectorial approaches on an ad hoc basis were practiced in the Maldives in reaction to pressing issues on ocean governance. This leaves us with no vision and a comprehensive strategy for addressing ocean issues effectively. With this approach, it would be almost impossible to implement ‘SDG 14: Life Below Sea’. There is also no central authority for data collection on various functions of ocean governance agencies and thus planning of policies, monitoring and evaluation of the ocean governance regime is problematic.

³ UNEP (n.d). *Maldives - Country Profile*. <https://www.cbd.int/countries/profile?country=mv#:~:text=The%20Maldives%20has%20a%20total,and%20400%20species%20of%20mollusks>

⁴ Department of National Planning (2013). *Statistical Yearbook of Maldives 2013*. Male’: Department of National Planning.

⁵ National Bureau of Statistics (2020). *Statistical Pocketbook of Maldives, 2019*. Ministry of National Planning & Infrastructure. <https://statisticsmaldives.gov.mv/nbs/wp-content/uploads/2019/07/Statistical-Pocketbook-2019.pdf>

⁶ Ajayi, T. R. (2000). *Mineral Resources of the Ocean*. [Conference Presentation] at the national workshop on ODINAFRICA.

⁷ UNCTAD (2021). *Review of maritime transport 2021*. UN.

⁸ Ministry of Legal Reform, Information and Arts (2008). *Functional Translation of the Constitution of the*

Republic of Maldives 2008. <http://www.maldivesinfo.gov.mv/home/upload/downloads/Compilation.pdf>

⁹ Maritime Zones of Maldives Act No. 6/96. https://www.un.org/depts/los/LEGISLATIONANDTREATIES/PDFFILES/MDV_1996_Act.pdf

¹⁰ Maritime Zones of Maldives Act No. 6/96.

¹¹ Ministry of Fisheries and Ocean Resources (2019). *Fisheries Act of the Maldives Act No. 14/2019 Unofficial English translation*. <https://fisheries.gov.mv/images/Fisheries%20Act%20of%20the%20Maldives%2014-%202019%20%20English%20Version-1718880127733.pdf>

There is also inadequate awareness on issues related oceans and the importance of the 'blue economy' at the grassroots level. The Maldives seas marine and coastal ecosystems, including its unique white sandy beaches are threatened and adversely impacted due to climate change. Erosion of beaches, saline intrusion of inland waters, coral bleaching, and thermal expansion of seas has resulted in the migration of fish stocks to cooler areas has impacted the fisheries industry. The intensity and frequency of natural disasters, environmental degradations, depletion of fisheries, and loss of biodiversity are equally great concerns in the Maldives.

The UN has designated the years 2021 to 2030 as the "Decade of Oceans" aimed promoting knowledge on ocean sciences to reverse the decline of the ocean system and spearhead new opportunities for sustainable development¹². Every year 08 June is observed across the world as World Ocean Day to raise awareness about importance of, and safeguarding oceans. In 2017, the UN held the first International Conference on Ocean Governance. From June 27 to 1 July this year held the 2nd UN Ocean Conference in Lisbon, Portugal.

Given its importance, the aim of this paper is to explore the politics and policy surrounding ocean governance in the Maldives. In doing so, it explores the progress made in ocean governance, examine the issues and challenges faced in implementation of ocean governance in the Maldives, determine the gaps in the existing legal framework for ocean governance and calls for the introducing an educational curriculum framework for Ocean Governance in the Maldives and lastly, proposes recommendations based on Transformative Ocean Governance: (1) reforming ocean governance; and (2) introduction of a curriculum framework in the Maldives. The lessons on issues and challenges involved in the ocean governance regime and recommendations for introduction and educational curriculum has important implications not only for Maldives, but to other SIDS countries as well.

Literature Review

Ocean Governance can be understood as a set of rules, practices and institutions which interact with all levels to ensure equity and sustainability in the allocation, and management of ocean resources, and spaces.¹³¹⁴ Given this, ocean governance covers a much broader and deeper meaning, involving the coordination of a multitude actors of the ocean; and protection of marine environment; involves the very processes essential for sustaining the ecosystem. Thus, ocean governance relates to promotion of responsible ocean governance internationally,

regionally and locally. It further includes sustainable development and management of marine resources, ocean transportation, coastal management, use of high seas, control of marine pollution, naval operations, research in ocean science, management of emergencies and disasters¹⁵

International Initiatives and Ocean Governance

Interest for world oceans began in the post-Second World War period, as scientists and industrialists began to take keen interest in exploring and capitalizing on the potential benefits from oceans known as 'global commons'. Sceptics point out that the leading European powers in the past applied customary international laws in making use of ocean space, resources and the interpretations of these laws were made to their advantage, while Ocean States under Least Developing Countries (LDCs) were observed to be at their mercy. Age old belief in the 'freedom of seas' and nationalistic belief of 'territorialization' were the two principles recognized before contemporary ocean regimes were introduced. The practice of carrying national flag under whose jurisdiction the ship falls was the practice of customary law of the sea. It was the UNCLOS which came into force in 1994 began to serve as a comprehensive international regime for the governance of world's oceans and seas. Prior to UNCLOS many international agreements related to ocean governance were negotiated and enforced. UNCLOS provided detailed structure and standards in using ocean space and resources. It called upon member states to adopt national laws and regulations which shall be as effective as international rules and standards for covering issues like marine dumping. Ocean states or archipelagic states and coastal states were provided justified advantages by UNCLOS with division of seabed into continental shelf as common heritage of mankind. These states received an EEZ from continental shelf up to 200 nautical miles.¹⁶¹⁷ A Seabed Authority was established in Jamaica to administer the provisions enshrined in the UNCLOS and an International Tribunal for the Law of the Sea was created to address and settle disputes¹⁸.

The International Whaling Commission was established in 1946 and the International Maritime Organizations (IMO) was established in 1948. The IMO played initially a significant role to regulate use of ocean space and transporting vessels. Regulations created by the IMO were applied to fishing boats, cruise ships and set rules and standards for vessels movements at seas. The IMO has also facilitated two important conventions which regulated maritime shipping and vessel source pollution and dumping at sea. The IMO also contributed hugely to

¹² UNESCO-IOC (2021). The United Nations Decade of Ocean Science for Sustainable Development (2021-2030) Implementation Plan. UNESCO, Paris.

¹³ Kum, S. (2022). Towards The Development of an Integrated National Ocean Policy Framework for Guyana.[Thesis- United Nations – The Nippon Foundation of Japan Fellowship Programme 2022). <https://apastyle.apa.org/style-grammar-guidelines/references/examples/conference-presentation-references>

¹⁴ Baillet, F. N. (2002). Ocean Governance and its Implementation: Guiding Principles for the Arctic

Region. Arctic Council Protection of the Marine Environment [PAME] Working Group.

¹⁵ Tarmizi, M. K. T. (2010). Institutional framework for ocean governance: a way forward. [Dissertation, World Maritime University].

https://commons.wmu.se/cgi/viewcontent.cgi?article=1419&context=all_dissertations

¹⁶ Kimball, L. A. (2003). International ocean governance: using International Law and organizations to manage marine resources sustainably. IUCN

¹⁷ Tarmizi, M. K. T. (2010).

¹⁸ Kimball, L. A. (2003) and Tarmizi, M. K. T. (2010).

maritime affairs as regime responses towards shipping sector, maritime safety and security and ports management^{19 20}.

The main international organizations that aim to regulate ocean governance and sustainable development of marine resources and advancement of scientific research include; Food and Agricultural Organization (FAO) formed in 1945; United Nations Education and Scientific Cultural Organization (UNESCO) formed in 1945 and United Nations Environment Program (UNEP) formed in 1972. These organisations have adopted a number of conventions, that promote health of the oceans, conservation of resources, fair use of the resources and monitoring the safe use of seas^{21 22} The UNESCO had established Intergovernmental Ocean Graphic Commission (IOC) in 1960 to promote international collaboration in ocean issues and researches. UNESCO also runs Regional Seas Program introduced in 1974 as the world's legal program for protecting the oceans and seas at the regional levels. More than 143 countries participate in 18 regional programs established by Regional Seas Conventions. In 2017 upon the advocacy by UNESCO, the United Nations General Assembly proclaimed 2021-2030 as International Decade of Ocean Sciences for Sustainable Development. Prior to this, the proclamation in 2015 the Declaration of Sustainable Development Goals, designated Goal-14 to ocean conservation, was titled as "Life Below Water" and aims at conserving and sustainable use of the oceans, seas and marine resources for sustainable development. The Targets of Goal-14 include the following: (1) by 2020, sustainably manage and protect marine and coastal ecosystems; (2) minimize and address the impacts of ocean acidifications; (3) by 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing, and destructive fishing practices; (4) by 2020, conserve at least 10 percent of coastal and marine areas, consistent with national and international law; (5) by 2020, prohibited certain forms of fisheries subsidies that contribute to overcapacity and overfishing; (6) provide access for small-scale artisanal fishers to marine resources and markets; (7) Increase scientific knowledge, develop research capacity and transfer marine technology; (8) by 2030, increase the economic benefits to Small Island Developing States and least developed countries from the sustainable use of marine resources; and (9) by 2025 prevent and significantly reduce marine pollution of all kinds²³²⁴.

¹⁹ Kimball, L. A. (2003). International ocean governance: using International Law and organizations to manage marine resources sustainably. IUCN

²⁰ Tarmizi, M. K. T. (2010). Institutional framework for ocean governance: a way forward. [Dissertation, World Maritime University].
https://commons.wmu.se/cgi/viewcontent.cgi?article=1419&context=all_dissertations

²¹ Kimball, L. A. (2003). International ocean governance: using International Law and organizations to manage marine resources sustainably. IUCN

²² Tarmizi, M. K. T. (2010). Institutional framework for ocean governance: a way forward. [Dissertation, World Maritime University].
https://commons.wmu.se/cgi/viewcontent.cgi?article=1419&context=all_dissertations

²³ Kimball, L. A. (2003) and Tarmizi, M. K. T. (2010).

The United Nations recently held an Ocean Conference from 27 June to 01 July 2022 in Lisbon, Portugal. 6000 delegates

including 24 Heads of State or Governments participated in the conference which adopted a Declaration of Oceans, "Our Ocean, our future, our responsibility". The Conference called upon governments to undertake initiatives to prevent, reduce, and eliminate marine plastic litter, including single-use plastics and microplastics, by adopting comprehensive life-cycle approaches, encouraging recycling and environmentally sound waste management. participants also engaged in dialogue in issues such as marine pollution, the promotion of ocean-based economies for increasing scientific knowledge and transfer of marine technology. The special events focussed on youth led solutions for advancing ocean action, and the local and regional governments including stakeholders focussed on initiatives for supporting sustainable adaptation for ocean protection. The high-level symposium on water focussed on the role of water and ocean for the implement of Sustainable Development Agenda and Paris agreement. The Sustainable Blue Economy Investment forum focussed on linking the private sector with integrated ocean management plans, trade finance, market and distribution value chains²⁵.

The outcome of this conference was a document known as the Lisbon Declaration and its commitments includes: (1) to conclude in 2022 legally binding instrument on conservation and sustainable use of marine biodiversity in areas beyond national jurisdictions under UNCLOS; (2) to commit to protect at least 30% of the ocean by 2030; (3) to call for a moratorium on deep-sea mineral exploitation in marine areas beyond national jurisdictions; (4) to increase investment in and scale up the implantation of marine and costal Nature-based Solutions (NbS); and (5) to negotiate an internationally legally binding instrument on plastic pollution that includes measures for the prevention and significant reduction of discharges of plastic to the ocean²⁶.

Ocean Governance and Maritime Affairs

While Ocean governance is often used interchangeably with maritime governance, the content and issues addressed in ocean governance slightly differ from maritime affairs. On the one hand, ocean governance is more concerned about management of natural resources protection from ocean pollution, scientific exploration, sustainable and safe use of ocean resources and spaces. On the other hand, maritime affairs relate to policies and activities related to maritime trade, security, resources

²⁴ Tarmizi, M. K. T. (2010). Institutional framework for ocean governance: a way forward. [Dissertation, World Maritime University].

https://commons.wmu.se/cgi/viewcontent.cgi?article=1419&context=all_dissertations

²⁵ United Nations (2022). Report of the 2022 United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development. Lisbon, 27 June–1 July 2022. A/CONF.230/2022/14.
<https://docs.un.org/en/A/CONF.230/2022/14>

²⁶ United Nations (2022). Report of the 2022 United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development. Lisbon, 27 June–1 July 2022. A/CONF.230/2022/14.
<https://docs.un.org/en/A/CONF.230/2022/14>

management, strengthening regulation on shipping, safety of ships, management of ports and international transport and trade and environmental protection. The key pillars of maritime affairs include (1) maritime trade and transport; (2) maritime security; (3) maritime resource management and (4) marine environmental protection. Furthermore, as per the UNCLOS 1982 the ocean is divided into four separate jurisdictional zones, namely; (1) Territorial Sea (water column 0 – 12 M); (2) Contiguous Zone (water column 12 – 24 M), (3) Exclusive Economic Zone (EEZ) (water column up to 200 M); and (4) Continental Shelf (seabed and subsoil up to 200 M) ²⁷²⁸.

Thus as “oceans” “representing the salt-water mass of the earth as a whole, is also means the physical components of the oceans, the uses framework and the jurisdictional zones of the ocean”²⁹ (p.13). Therefore, maritime affairs can be conceptualised as a subfield of ocean governance. A leading Scholar of Ocean Governance Elisabeth Mann Borgese, defines ocean governance as “the way in which ocean affairs are governed, not only by governments, but also by local communities, industries and other stakeholders. It includes national and international law, public and private law as well as custom, tradition and culture and the institutions and processes created by them”³⁰³¹ (p. 6).

Hence, this implies the importance of effective governance for maritime security and trade, the importance of promoting sustainable maritime policies supporting the ocean conservation and economic development, the need for regional and international collaboration in addressing global security challenges such as climate change and resource exploitation.

Theoretical framework for Politics and Policy on Ocean Governance

Much of the narrative on Politics and Policy related to ocean governance is based on the need for “transformation” in ocean governance. Such calls have been motivated by a call for securing the rights of marginalized coastal communities, to promote ocean based economic development, and to reverse global biodiversity loss³². Given the fact that the most pressing issues in regulating oceans include: piracy, overfishing, pollution, seabed mining, decline of marine biodiversity, and militarization. Issues of important to policing, the need to regulation the use of oceans resources and spaces, and the need for effective ocean governance at the local, national, regional and global levels relates to the foundational principles for ocean governance and rests with (1) sustainability; (2) Jurisdiction and Sovereignty, (3) marine environmental protection; (4) equitable access and Economic Development; (5) international Collaboration.

In the wake of ‘2030 Agenda for Sustainable Development’, specialists on ocean governance have called for a more Transformative Ocean Governance³³. A Transformative Ocean Governance (TOG) is an innovative approach to manage oceans through seeking a balance between economic development, environmental sustainability, social equity and cultural values ³⁴. Through the application of an integrated and ecosystem-based, science-based, model-based and other knowledge-based approaches to ocean, the 13 principles for a TOG are illustrated and serve as useful principles to address the gaps in politics and policy on ocean governance.³⁵

²⁷ Borgese (2001) as cited in Tarmizi, M. K. T. (2010). Institutional framework for ocean governance: a way forward. [Dissertation, World Maritime University]. https://commons.wmu.se/cgi/viewcontent.cgi?article=1419&context=all_dissertations

²⁸ Tarmizi, M. K. T. (2010). Institutional framework for ocean governance: a way forward. [Dissertation, World Maritime University]. https://commons.wmu.se/cgi/viewcontent.cgi?article=1419&context=all_dissertations

²⁹ Mustafar, A. B. M. (2001). Ocean governance. [Dissertation, World Maritime University]. Maritime Commons, the Digital Repository of World Maritime Commons

³⁰ Borgese, E. M.H. (2019). The Future of Ocean Governance and Capacity Development: Essays in Honor of Elisabeth Mann Borgese (1918-2002). The International Ocean Institute, Canada (Eds). Koninklijke Brill NV, Leiden, The Netherlands. [file:///Users/aisha/Downloads/9789004380271_webready_content_text%20\(1\).pdf](file:///Users/aisha/Downloads/9789004380271_webready_content_text%20(1).pdf)

³¹ Tarmizi, M. K. T. (2010). Institutional framework for ocean governance: a way forward. [Dissertation, World Maritime University].

https://commons.wmu.se/cgi/viewcontent.cgi?article=1419&context=all_dissertations

³² Blythe, J. L., Armitage, D., Bennett, N. J., Silver, J. J., & Song, A. M. (2021). The politics of ocean governance transformations. *Frontiers in Marine Science*, 8, 634718.

³³ Lombard, A. T., Clifford-Holmes, J., Goodall, V., Snow, B., Truter, H., Vrancken, P., ... & Morgera, E. (2023). Principles for transformative ocean governance. *Nature Sustainability*, 6(12), 1587-1599.

³⁴ University of Plymouth(n.d). *Transformative ocean governance and just transitions towards a sustainable blue economy*. <https://www.plymouth.ac.uk/research/marine-social-science-research-unit/transformative-ocean-governance-and-just-transitions-towards-a-sustainable-blue-economy>

³⁵ Lombard, A. T., Clifford-Holmes, J., Goodall, V., Snow, B., Truter, H., Vrancken, P., ... & Morgera, E. (2023). Principles for transformative ocean governance. *Nature Sustainability*, 6(12), 1587-1599

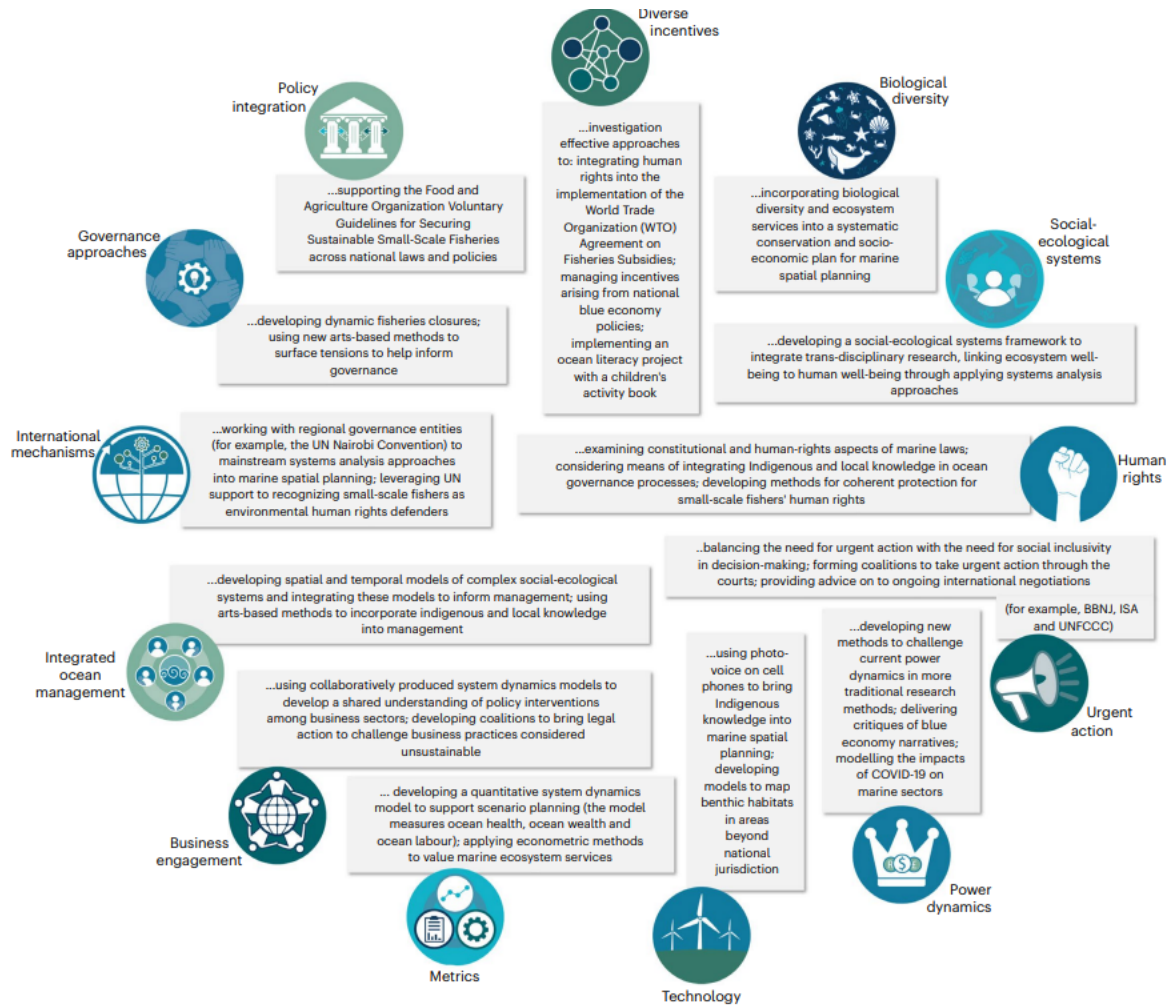


Figure 1: 13 Principles of Transformative Ocean Governance³⁶ (p. 1593).

Methods

A series of initial meetings were held with the specialists and stakeholders from mid-January to the end of February 2023. The interviews with 3 specialists on ocean governance included (1) a Freelance Consultant and representative of Maldives for Indian Ocean Institute, Malta; (2) the Director of Maldives International Pole and line Foundations, Male'; and (3) Former Program Coordinator, Noo Raaje Program of the Maldives Marine Research Institute. The stakeholders were representatives from the (1) Attorney General's Office ; (2) Centre for Maritime Study, The Maldives National University; (3) Coast Guard; (5)The Maldives National Defence Force; (6) Faculty of Arts, The Maldives National University; 7) Faculty of Engineering Science and Technology, The Maldives National University; (8) Ministry of Environment and Climate Change;(9) Ministry of Fisheries and Agriculture ; (10) Ministry of Foreign Affairs; and (11) Ministry of Transport and Civil Aviation. One limitation was the difficulties of inclusion of actors from the NGO sector. Representatives from government institutions and faculties of the Maldives National University were asked to examine progress, gaps and challenges in faced with respect to their fields of expertise and outcomes were presented at the Ocean Governance Symposium 2023 held on 01 March 2023. specialists presented progress and remaining

gaps in the implementation of Ocean Governance in the Maldives. Following this, a follow up meeting was held to validate the findings and policy recommendations of the conference on 16 March 2023. These findings were further triangulated with available reports and publications on ocean governance issues in the Maldives. The policy recommendations were further analysed though a TOG perspective to ensure a more innovative and integrated perspective.

Findings and Discussion

The outcomes of the discussion by stakeholders revealed progress made by the country in various aspects related to ocean governance such as issues related to maritime security, fisheries management, marine and coastal conservation, legislative and enforcement gaps, the need for capacity building and policy recommendations for ocean governance in the Maldives.

Maritime Security Issues and the Maldives

The maritime security issues for the Maldives, includes a wide range of maritime crimes, also known as 'blue crimes' that "affect human lives, political stability and economic interests in different ways, ranging from their impact on coastal communities to international shipping and even national

³⁶ Lombard, A. T., Clifford-Holmes, J., Goodall, V., Snow, B., Truter, H., Vrancken, P., ... & Morgera, E. (2023). Principles for transformative ocean governance. *Nature Sustainability*, 6(12), 1587-1599.

security (p.1)³⁷. These illicit activities are driven by economic gains, maritime terrorism and extremist violence at sea, and involved clandestine motives by non- state actors; interstate rivalries and disputes focusing on state actors, who peruse strategic national interests. The Maldives National Defense Force (MNDF) is responsible for Patrolling of Maldivian waters and both naval and air surveillance are also carried out by MNDF and lacks adequate resources and capacity to undertake this vital role³⁸.

Illegal, Unreported and Unregulated (IUU) fishing in the Maldives

A greater concern is IUU fishing activities using longlines and drift nets by foreign vessels in the EEZ of the Maldives^{39,40}. IUU fishing is considered the greatest threats to marine ecosystems as it undermines national and regional efforts to manage fisheries, and marine biodiversity conservation. IUU is observed both in high seas and in areas under national jurisdiction and leads to the collapse of local fisheries. Accountability by fishermen based on rights to utilise resources must be an obligation. There is also limited monitoring for compliance and those who violate must be penalized to ensure our oceans are properly managed.⁴¹ Moreover, developing countries with small-scale fisheries are particularly vulnerable as it throttles local food supply and threatens the livelihoods of people⁴². There have been incidents where Sri Lankan and Indian fishing vessels entered the EEZ of the Maldives. In the last 5 years, the Maldives Coast Guard has apprehended 64 IUU Foreign Fishing Vessels⁴³.

With an EEZ of 859,000 sq. kms⁴⁴ the Maldives is responsible for managing its marine resources and ensure the implementation of the laws and regulations to guarantee sustainable utilisation of its resources.⁴⁵ With the ruling of the International Tribunal for the Law of the Sea (ITLOS) in a maritime boundary delimitation case involving the Republic of Mauritius, - with Mauritius being 45,331 square kilometres and the Maldives 47,232 square kilometres. Given the fact the

Maldives is heavily dependent on the fishing for economic stability and food security, and as Tuna is a migratory species, there was a growing public outrage that if Mauritius begins industrial fishing operations in the Chagos Archipelago, the tuna stock in the area may be depleted and would prove to be detrimental for the Maldives⁴⁶. Nevertheless, the Maldives has always advocated for the precautionary approach to ensure long term sustainability of its resources and all management plans and regulations are revised with further evidence and accumulation of data. The caveat however is that there is limited data and information documented on fisheries activities within the EEZ of Maldives.

Thus, IUU fishing in Maldivian waters by foreign parties is another large threat to our blue economy. The Maldives lack sufficient infrastructure and vessels to patrol and protect its vast ocean territory. The lack of skilled workers to carry out ocean management tasks and to conduct scientific research to understand environmental changes occurring in ocean waters is also a challenge. The Maldives cannot undertake seabed mining which is yet an unexploited area of natural resources. Inadequacy in patrolling the large sea waters of Maldives has led to a safe passage for drug traffickers and smugglers within the EEZ of Maldives.

Drug Trafficking in the Maldives

The Republic of Maldives is potentially vulnerable as a point for illegal shipments of precursor chemicals or large quantities of drugs meant for other countries. Opioids produced in Central Asian nations is loaded onto dhows and transported through the Arabian Sea towards both West and East of Indian Ocean Rim Region⁴⁷. The first major seizure of cocaine was made in September 1993 at Malé International Airport when 8 kilograms of cocaine was found concealed in the false bottom of suitcases in the possession of a foreign national. In 1997, three Maldivians were discovered in an orchestrated attempt to smuggle in 1,372 grams of hashish oil in seven professionally packed cans of corned beef while they were about to board a flight to Malé from Trivandrum Airport⁴⁸. On 09 July 2016, a drug haul with an estimated street value of MVR7.5 million (US\$486,000) was

³⁷ Bueger, C., & Edmunds, T. P. (2020). Blue Crime: Conceptualising Transnational Organised Crime at Sea. *Marine Policy*, 119, Article 104067. <https://doi.org/10.1016/j.marpol.2020.104067>. https://research-information.bris.ac.uk/ws/portalfiles/portal/240115333/Bueger_and_Edmunds_2020_Blue_Crimes.pdf

³⁸ Hilmy, C.I. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

³⁹ Ministry of Fisheries, Marine Resources and Agriculture (2019) *The Maldives National Plan of Action to prevent, deter and eliminate illegal, unreported and unregulated fishing*. Malé, Republic of Maldives

⁴⁰ Ministry of climate Change Environment and Energy and UK international Development (2024) *Maldives national framework for management of protected & conserved areas 2024 – 2029*. <https://protectedareas.environment.gov.mv/storage/uploads/8roOj7qP/bwhj7g3y.pdf>

⁴¹ Jauhary, A.R. (2023, March 01). *Ocean governance and Maldives efforts towards managing marine resources*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁴² FAO (2016) Illegal, unreported and unregulated fishing. <https://openknowledge.fao.org/server/api/core/bitstreams/7c0a9022-47cf-46d6-9347-00369a0e86f8/content>

⁴³ Hilmy, C.I. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁴⁴ Maldives Bureau of statistics (2019). Statistical Pocketbook of Maldives, 2019. <https://statisticsmaldives.gov.mv/nbs/wp-content/uploads/2019/07/Statistical-Pocketbook-2019.pdf>

⁴⁵ Jauhary, A.R. (2023, March 01). *Ocean governance and Maldives efforts towards managing marine resources*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁴⁶ The Maldives Journal (2023, April 29). *Maldives Loses 45,331 sq km of Exclusive Economic Zone to Mauritius*. <https://themaledivesjournal.com/49942>

⁴⁷ Hilmy, C.I. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁴⁸ UNODC (2005, September). *South Asia Regional Profile: the Maldives*.

seized from a boat en-route to Malé from the Indian port of Tuticorin. On 5 October 2019 around 70kgs of drugs were found on an Iranian boat around 172 miles away from H.A Thuraakunu in a joint operation by Police and MNDF Coastguard⁴⁹. The influx of contraband drugs into the country has been a larger penance faced by law enforcement agencies in the country.

Marine ecosystem and coastal ecosystem conservation

Marine ecosystems play a vital role in regulating the climate, providing nutritious food and supporting development⁵⁰. Oceans host varieties of rich and fragile biodiversity that are unexplored and provides important ecosystem services⁵¹. Oceans are dynamic and connected, making it a global responsibility to cooperate across boundaries to ensure meaningful action in managing its resources⁵². At present oceans are under intense pressure from human activities. Illegal activities, overexploitation of ocean resources, marine pollution and climate change are threatening the oceans⁵³. The pressure on oceans will certainly intensify as world population rises to nearly 10 billion by 2050^{54 55}.

Coastal ecosystems are a vital source for the products and services required for the wellbeing of communities, such the provision of food security, livelihoods and health. marine and coastal ecosystems support human wellbeing directly, through the products and services in sectors such as fisheries, tourism, medicine and fuel etc.⁵⁶ as well as indirectly through the variety of life support and production support functions they generate, such as regulating and supporting services such as fisheries productivity and shoreline protection, and their intrinsic worth to people⁵⁷. According to the *Valuing Of Biodiversity Report for the Maldives*, biodiversity-based sectors contribute to 71 percent of national employment (78,500 jobs), 49 percent of public revenue (MVR 2.5 billion; USD 435 million and 62 percent of foreign exchange, 98 percent of exports MVR 1.7 billion and 89 percent of GDP MVR 135 billion⁵⁸⁵⁹.

The extent of oil spill damage is detrimental to the fragile marine ecosystems and the environment in the Maldives is evident from the following examples. In one incident, MV Wakashio oil spill occurred after it ran aground on a coral reef in Mauritius on 25 July 2020. The ship began to leak fuel oil in the following weeks, and broke apart in mid-August. An estimated 1,000 tonnes of oil spilled into the ocean in what was called by some scientists the worst environmental disaster ever in Mauritius. Another incident relates to the MT New Diamond crude oil tanker transporting 270,000 metric tons of crude oil from the port of Meena Al Ahmadi in Kuwait to the Port of Paradip in India and a fire broke out aboard in the eastern seas of Sri Lanka on 03 September 2020. Third, Anama-flagged 58735-DWT Navios Amaryllis ran aground in the west of Kaafu Atoll Rasfari island of the Maldives on 19 August 2021 -the ship was travelling from India to South Africa. The Environmental Protection Agency of the Maldives reported that 8867 square metres of the reef were significantly damaged due to the grounding, leading to the destruction of marine life and the structure of the reef. Ship released after paying 10 million USD⁶⁰.

Given its importance for the protection of marine and coastal ecosystems, the Ministry of Fisheries and Agriculture, the Maldives Institute of Marine Research functions to collect data on marine resources and monitor the state of marine life and habitats. Similarly, the function and role of Ministry of Environment in ocean governance rests with Environmental Conservation Policy; implementation of Law Number 4/93 Environmental Protection and Prevention Act⁶¹; and related regulation on the Declaration of Marine Protected areas. According to Article 4 (a) of Law Number 4/93, [t]he Ministry of Planning, Human Resources and the Environment Ministry shall be responsible for identifying protected areas and natural reserves and for drawing up the necessary rules and regulations for their protections and preservation. Article 5(a) mandates the

https://www.unodc.org/pdf/india/publications/south_Asia_Regional_Profile_Sept_2005/11_maldives.pdf

⁴⁹ Hilmy, C.I. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁵⁰ Hoegh-Guldberg, O., & Bruno, J. F. (2010). The impact of climate change on the world's marine ecosystems. *Science*, 328(5985), 1523-1528.

⁵¹ Gamfeldt, L., Lefcheck, J. S., Byrnes, J. E., Cardinale, B. J., Duffy, J. E., & Griffin, J. N. (2015). Marine biodiversity and ecosystem functioning: what's known and what's next?. *Oikos*, 124(3), 252-265.

⁵² Costanza, R., Andrade, F., Antunes, P., van den Belt, M., Boesch, D., Boersma, D., ... & Young, M. (1999). Ecological economics and sustainable governance of the oceans. *Ecological economics*, 31(2), 171-187.

⁵³ Crain, C. M., Halpern, B. S., Beck, M. W., & Kappel, C. V. (2009). Understanding and managing human threats to the coastal marine environment. *Annals of the new York Academy of Sciences*, 1162(1), 39-62.

⁵⁴ Rifga.M. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium 2023] Faculty of Arts, Male' Maldives.

⁵⁵ Doney, S. C. (2010). The growing human footprint on coastal and open-ocean biogeochemistry. *Science*, 328(5985), 1512-1516.

⁵⁶ McMichael, A., Scholes, R., Hefny, M., Pereira, E., Palm, C., & Foale, S. (2005). Linking ecosystem services and human well-being. *Ecosyst. Hum. Well-Being*, 5, 43-60.

⁵⁷ Jauhary, A.R. (2023, March 01). *Ocean governance and Maldives efforts towards managing marine resources*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁵⁸ Emerton, L., Baig, S., & Saleem, M. (2009). *Valuing biodiversity: the economic case for biodiversity conservation in the Maldives*. AEC Project Report, Ministry of Housing, Transport and Environment, Government of the Maldives and UNDP, Maldives. Available at: <http://cmsdata.iucn>

⁵⁹ Rifga.M. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium 2023] Faculty of Arts, Male' Maldives.

⁶⁰ Hilmy, C.I. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁶¹ Ministry of Environment (1993). Law No: 4/93 Environment Protection and Preservation Act of Maldives. https://www.environment.gov.mv/biodiversity/wp-content/uploads/2016/01/environment_protection_and_preservation_act_1993_english.pdf

submission of Environmental Impact Assessment (EIA) to the Ministry of Planning, Human Resources and Environment before implementing any developing project that may have a potential impact on the environment. It is important to note that the Law Number 4/93 Environmental Protection and Prevention Act is insufficient to regulate and manage in a holistic manner multiple issues emanating from oceans and ecological systems.

Furthermore, the Environmental Impact Assessment Regulation (2007)⁶² mandates that any developmental activities must be undertaken through an EIA process and Environmental Protection Agency can impose a fine for non-compliance with regulation. The Ministry of Environment is responsible for developing management regimes for marine protected areas. In accordance with the Convention on Biological Diversity (CBD), the Ministry is working towards realising the Kunming-Montreal Global Biodiversity Framework's international conservation targets, identifying protected areas and natural reserves and for drawing up the necessary rules and regulations for their protection and preservation. The Ministry has declared the conservation of protected areas under 7 categories in accordance with the Protect Species Regulation (R-25/2021) and protects specifies ranging from (1) internationally recognised areas (2) strict natural reserves; (3) Wilderness Area; (4) National Park; (5) Natural Monument (6) Habitat/Species Managed Area, (7) Protected Area with Sustainable Use. lastly, the Waste Management Regulations, Number. R/58 (2013) prohibits the disposal of waste into oceans⁶³.

The Strategic Plan of the Ministry of Environment in 2019 to 2023 was aimed at protecting at least 10% of coral reef area, 20% of wetlands and mangroves and at least 1 sand bank and one uninhabited island from each atoll are under some form of protection and management. Since 1995, there have been 91 protected areas extending to 62894.55 ha and encompasses protected islands, 31 marine protection areas, 59 mangroves, 15 mangrove ecosystems and 3 underwater shipwrecks. While the SAP has incorporated many aspects of ocean governance but it could not provide a comprehensive mechanism to integrate supervision and monitoring progressively and holistically⁶⁴.

Other conservation measures include declaring 3 biosphere reserves, 3 OECMS⁶⁵, conserve resource house reefs and including red list of major ecosystems. In 28 June 2011 UNESCO declared B. Atoll a Biosphere Reserve- the first of its kind in the country and necessitated the establishment of an

administrative office in B. Atoll to administer and monitor the conservation efforts of the ocean space declared as a Biosphere Reserve. The Biosphere Reserve Administrative Office also conducts awareness programs for school children about the importance of natural resource conservation; and coral farming and growth. The Office also provides technical assistance in preventing beach erosion, biosafety, bio-technology, and monitoring environmental changes such as ocean pollution, and inland water quality. Additionally, scientific research was conducted and data were collected for reference. By this reserve, all marine living species and reefs were protected, while conservation efforts were made to revive the depleting stocks such as sharks and manta rays. In 2022, a review was done after 10 years of Biosphere Reserve and UNESCO endorsed again to continue the ocean space as a Biosphere Reserve. Nevertheless, some of the challenges faced includes limited resources for management and conservation, the high of management, limited diversity in existing governance models and limited resources⁶⁶.

As part of the Noo Raajje Initiative in partnership with the [Blue Prosperity Coalition](#) of USA aimed at safeguarding ocean resources, restore coral ecosystems health, help manage sustainable ocean industries, strengthen Maldives' position in managing shared Indian Ocean fish stocks, and protect at least 20 percent of Maldivian waters. The government has passed 20 percent inner and off shore ocean protection commitment for creating effective ocean protection strategies and building sustainable blue economies. The Noo Raajje program also helps promote the advancement of Maldives ocean sciences, and capacity building and provides support for local scientists and civil society^{67 68}.

The Environmentally Sensitive Area List Developed is a key document for the identification and progression of Marine Protected Areas in the Maldives. The Maldives Red List is a national list of threatened species and guides decision making at a national level for species protection, management and conservation^{69 70}.

Plastic pollution of seas and particular lagoons and beaches is a pressing challenge in Maldives. Other issues include ineffective regulation of use of ocean resources and spaces. The lack of effective governance of oceans at local, national, regional, and global levels is a pressing concern.

⁶² Ministry of Environment, Energy and Water (2007). Environment Impact Assessment Regulation. <https://old.mvlaw.gov.mv/pdf/gavaid/minHousing/27.pdf>

⁶³ Rifga.M. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium 2023] Faculty of Arts, Male' Maldives.

⁶⁴ Ministry of climate Change Environment and Energy and UK international Development (2024) *Maldives national framework for management of protected & conserved areas 2024 – 2029*.

⁶⁵ A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in-situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values" (p.21, Ministry of climate Change Environment and Energy and UK international Development (2024) *Maldives national framework for management of protected & conserved areas 2024 – 2029*.

⁶⁶ Rifga.M. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium 2023] Faculty of Arts, Male' Maldives.

⁶⁷ Ministry of climate Change Environment and Energy and UK international Development (2024) *Maldives national framework for management of protected & conserved areas 2024 – 2029*.

⁶⁸ Shaheem,F.A., & Shareef, M. (2021) Noo Raajje (2021) Noo Raajje legal and policy framework assessment report. the Blue Prosperity Coalition and Government of Maldives. https://www.nooraajje.org/_files/ugd/47d1fd_3604a93da0184e86804cb379e28c9f59.pdf

⁶⁹ Rifga.M. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium 2023] Faculty of Arts, Male' Maldives.

⁷⁰ Ministry of climate Change Environment and Energy and UK international Development (2024) *Maldives national framework for management of protected & conserved areas 2024 – 2029*.

Despite these measures the remaining challenges include limited capacity of local actors, climate change, coastal modification, pollution, overexploitation of Marine Resources^{71 72}. The Maldives National Framework for Management of Protected & Conserved Areas 2024 – 2029 disturbances to wild life species increased boat traffic increasing noise pollution and the risk of collisions and propeller strikes to wildlife, feeding of wildlife for tourism purposes resulting in wildlife altering its behaviour, and diver and snorkeler related damage to coral reefs^{73 7475}. The Maldives National Framework for Management of Protected & Conserved Areas 2024 – 2029. Other issues identified includes stakeholder coordination and engagement, national level sustainable and long-term policies, operational challenges involving financial assistance, challenges in monitoring and management; conflicting mandates with other intuition as it involves the replication of work.⁷⁶

Gaps in legal framework

Given the context, the Maldives has taken several initiatives to integrate policies for the sustainable utilisation of its marine resources and conservation of biodiversity. These initiatives include legal initiatives, institutional frameworks and implementation mechanisms wherein the engagement of various government institutions, private sector and Non-Governmental Organisations (NGOs) are observed. The Maldives also engages at regional level, through its participation in regional fisheries management organisations such as the Indian Ocean Tuna Commission (IOTC); Food and Agricultural Organisation (FAO); and the United Nations. Regional ocean governance is enhanced through the UNCLOS making it easy for the countries to cooperate on issues to the management of shared fish stocks, pollution issues, conserving ecosystems, as well as marine transport. The Maldives became a member to the International Maritime Organization (IMO) – the UN specialized agency responsible for safe, secure, and efficient shipping and preventing pollution from shipping in 31st May 1967. The Maldives is also affiliated with the Indian Ocean Memorandum of Understanding (IOMoU) -inter-governmental organization on port State Control (PSC) in the Indian Ocean Region, recognized by International Maritime Organization as a specialized UN body and is responsible for promoting the effective implementation of an improved and harmonized system of port State Control by uniform applications of the relevant IMO and International Labor Organization (ILO) instruments on ships operating in the region⁷⁷. Regional and

international collaboration is also instrumental to address issues related to seabed mining, piracy, and ocean acidification⁷⁸.

There is also a Law passed in 1996 titled Law on Ocean Drifting Items and Discovery Items (Law No. 96/8). Another law related to ocean governance was passed 1996 and named as law No. 96/7 Shipwrecks and Drowning Vessels. The Law Number 6/96 Maritime Zones Act of the Maldives declared maritime zones of Maldives in accordance with UNCLOS. As per Sections 4 and 8 of the Act, the Maldives has a 12 nautical mile territorial sea, and sovereignty of Maldives extends to the territorial sea, while Article 3 of the Constitution of the Republic of Maldives states that “ The territory of the Maldives encompasses the land, air space, sea and seabed within the archipelagic baselines of the Maldives drawn in accordance with the law, and includes the territorial waters, the seabed and air space thereof beyond the said baselines” (p.1)⁷⁹. This suggests that Maldives territory extends up to the territorial sea, However, this Act does not focus on issues related to the continental shelf. Furthermore, while the Maritime Zones Act has basepoints attached as an exhibit to the Act, there are three basepoints which are drawn longer than the limit mentioned in the UNCLOS and hence, these basepoints would need to be revised. While at present, there is inadequate work carried out to revise these base points, hydrographic assistance is required to for this revision. Besides these three essential laws, parts of ocean governance and issues or matters related to ocean governance or maritime affairs are touched upon sporadically in respective statutory laws relating the mandates of functions of various ministries⁸⁰.

The institutional framework for ocean governance is split across different government institutions. Maritime enforcement is regulated by Maldives Coastguard of the Ministry of Defence, while marine environment is regulated by Ministry of Environment, Climate Change and Technology; and Environment Protection Agency and the Ministry of Fisheries and Agriculture. Ocean governance activities related to fishing and aquaculture falls under the Ministry of Fisheries and Agriculture. Presently, the Ministry of Fisheries is rebranded to the Ministry of Fisheries and Ocean Resources aimed at safeguarding and optimizing the productivity, sustainability, and resilience of fisheries and ocean resources through science-based management, effective regulation, and stakeholder engagement. The Ministry of Transport and Civil Aviation regulates the marine transport, the safety of life at sea, safety of

⁷¹ Rifga.M. (2023, March 01). Maritime Security and Ocean Governance: Strategic and Defence Perspective. [Conference Presentation, Ocean Governance Symposium 2023] Faculty of Arts, Male’ Maldives.

⁷² Ministry of climate Change Environment and Energy and UK international Development (2024) Maldives national framework for management of protected & conserved areas 2024 – 2029.

⁷³ Mundy, E. (2017). Seasonal hotspots of mega-fauna and vessel activity in south ari marine protected area, Maldives (Doctoral dissertation, University of York).

⁷⁴ Harvey-Carroll, J., et al. (2021). “The impact of injury on apparent survival of whale sharks (Rhincodon typus) in South Ari Atoll Marine Protected Area, Maldives.” Scientific Reports 11(1): 937.

⁷⁵ Ministry of climate Change Environment and Energy and UK international Development (2024) Maldives national framework for management of protected & conserved areas 2024 – 2029.

⁷⁶ Ministry of climate Change Environment and Energy and UK international Development (2024) Maldives national framework for management of protected & conserved areas 2024 – 2029.

⁷⁷ Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male’ Maldives.

⁷⁸ Hilmy, C.I. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium 2023] Faculty of Arts, Male’ Maldives.

⁷⁹ Maritime Zones of Maldives Act No. 6/96. https://www.un.org/depts/los/LEGISLATIONANDTREATIES/PDFFILES/MDV_1996_Act.pdf

⁸⁰ Shaany, M. & Ibrahim, Z. (2023, March 01). *Ocean Governance in Maldives: Legislative Gaps and Legal issues*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male’ Maldives.

the navigation and the protection of marine environment from ship generated pollution are mandated to Ministry of Transport and Civil Aviation ⁸¹.

The legal framework for the protection of maritime security is enshrined in Law No. 35/2015, and relates to the first Amendment to the Maldives Maritime Navigation Act No. 69/78, which is aimed at ensuring the safety of life at sea, the safety of navigation, and the protection of the marine environment from ship-generated pollution; the development of the national maritime sector; to represent the State's interest in shipping safety and security and general maritime matters; act as the implementation, monitoring and compliance authority for the State's obligations in respect of international maritime instruments, to which Maldives is a party; and administer national maritime regulations, whilst keeping up with the developments in international best practices in providing transport related services⁸². According to the Maldives Maritime Act 69/78 mandates there are 27 regulations to be drafted and relates to vessel construction, onboard safety equipment, fire safety, crew certification and welfare, tonnage, loading, survey and certification, vessels arrival and departure, pilotage, and prevention of environmental pollution⁸³.

While IMO has adopted seven conventions related to marine pollution, including intervention on the high seas in oil pollution casualties, dumping wastes, control of anti-fouling, recycling of ships, Oil Pollution Preparedness, Response, and cooperation, the Maldives is a signatory to only two instruments of IMO. First, the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78), is the IMO instrument to prevent pollution of the marine environment by oil, Noxious Liquid Substances in Bulk; Harmful Substances Carried by Sea in Packaged Form; sewage; garbage; and air pollution from ships. Although Maldives is a signatory to MARPOL 73/78, its Annex III- Harmful Substances Carried by Sea in Packaged Form, Annex IV- sewage, and Annex VI- air pollution from ships, is not ratified. Second, Maldives became signatory to the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (BWM Convention) in 31 May 2025⁸⁴.

Furthermore, the Maldives is party to the IMO Djibouti Code of Conduct (DCoC) on 12 January 2017, it was adopted in 2009. The DCoC was originally an agreement on cooperation between

East African and Southwest Asian states to counter piracy, and been instrumental in repressing piracy and armed robbery against ships in the western Indian Ocean, and the Gulf of Aden. its scope has expanded to cover other illicit maritime activities, including human trafficking and illegal, unreported, and unregulated (IUU) fishing ⁸⁵.

However, there is no particular regime to govern environmental damage from marine casualties where longer salvage operations are required and as a result environment damage assessment is a challenge. Additionally, there is no mechanism under the law to release the vessel upon deposit of adequate security / bond in cases of marine environment damage and there are cases where vessels were detained for a longer period. Such long detentions are observed to hinder the freedom of navigation^{86,87}.

Section 13 (f) of the Penal Code states that the Maldives has the authority to exercise criminal jurisdiction in the EEZ of the Maldives in accordance with the Conventions ratified by the Maldives. However, offences such as piracy and armed robbery has not been codified in the penal code or any other law while these offences are mentioned in the UNCLOS and there has been reported cases of vessels potentially suspected of piracy ⁸⁸.

Other constraints faced by the Maldives is that at present there is no integrated authority or centre to monitor and coordinate plans, and activities on ocean governance in the country. The Maldives also lacks management, evaluation and scientific capacity to administer issues on ocean governance. There is a need for allocating more funds for training and capacity building. Investing in capacity building to conduct research on ocean governance should also be prioritised. Thus, in order to address the gaps and challenges legislative reform to cater for a special regime governing marine environment damage and international conventions related to oil spill and environment protection need to be harmonised into national law in the Maldives⁸⁹.

The need for capacity building in Ocean Governance

With the amalgamation of Maritime Training Center within the university upgraded as MNU Center for Maritime Studies, The Maldives National University has recognized the importance of building capacity towards teaching and research in the fields of ocean governance and maritime affairs since 2011. However, this Center is still in its infancy of development and could only offer short-term certificate courses on in Navigation, Electric

⁸¹ Shaany, M. & Ibrahim, Z. (2023, March 01). *Ocean Governance in Maldives: Legislative Gaps and Legal issues*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁸² Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁸³ Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁸⁴ Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁸⁵ Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference

Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁸⁶ Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁸⁷ Shaany, M. & Ibrahim, Z. (2023, March 01). *Ocean Governance in Maldives: Legislative Gaps and Legal issues*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁸⁸ Shaany, M. & Ibrahim, Z. (2023, March 01). *Ocean Governance in Maldives: Legislative Gaps and Legal issues*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁸⁹ Shaany, M. & Ibrahim, Z. (2023, March 01). *Ocean Governance in Maldives: Legislative Gaps and Legal issues*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

and Radio Communication, Safety Training, Specialized Marine Industry Courses, master and Deck Officer Courses, Radar Courses and firefighting courses to name a few. Centre for Maritime Studies requires development assistance towards capacity building in introducing more advanced courses, enabling to offer human resource development in the area of ocean governance and maritime affairs.

The College of Fisheries and Ocean Sciences (CFOS) in the Maldives is dedicated to education, research, and promoting sustainable practices in fisheries and marine sciences was established recently and offers programs in marine biology, fisheries management, aquaculture, and oceanography.

The Faculty of Arts deals offers program on Political Science and International Relations and Social Policy. As there are hardly any course offered by other faculties in the area of politics and policy of ocean governance as well as law of the sea, it is anticipated that aspects related to ocean governance policy and politics be covered within the disciplines of offered through the faculty.

Areas that MNU can offer courses and can be initiated with research projects in helping to build national capacity to plan, manage and monitor matters and issues relating ocean governance could include Politics and Policy of Ocean Governance; legal framework for National Ocean Policy. Given this, the following areas need to be prioritised when developing a curriculum framework on ocean governance. First for maritime security, the following areas need to be prioritised.

First, focus on Maritime education and training; Maritime energy management; Maritime law, policy and governance; Management of ports and offshore industries; Shipping management and logistics; International transport and logistics; Human resource development for sea vessels; Maritime environment protection; Maritime Navigation; Set practicable standards in maritime development and regulation; partnership with universities such as the World Maritime University and it offers postgraduate degrees in maritime related studies.

Second, for the management and conservation of marine and coastal environment, MNU would need to focus on the management of Marine Environment; International Law of the sea (UNCLOS) and International Conventions and Agreements related to ocean Governance; regulating Sustainable Use of Seas; conservation of marine species; sustainable development and management of marine resources; coastal Management; the role of International organizations relating to Ocean Governance and Maritime Affairs; marine pollution and management of reef ecology; climate change and ocean governance; management of blue economy (Maritime Economy); sustainable development of marine resources; and ocean knowledge management and Ocean or maritime Leadership.

Third, Research capacity in ocean governance is also under developed at MNU. MNU requires development assistance in building research capacity. Collaborative research areas can be research on ocean or marine renewable energy (Wind, Wave and Solar); protection of marine Environment; research and study on reef ecology; research on coral bleaching and thermal expansion of sea waters; ocean and maritime security and ocean strategic

studies governing human activities that affect the ocean; ocean sustainability; governance and management; Maritime business and management shipping management and port management policy; maritime logistics; applied marine engineering; ocean innovation technologies; seabed research; maritime law; executive maritime management and management of ocean to address translational criminal activities such as illegal fishing, trafficking, smuggling.

Further a curriculum framework must also include the 13 principles of ToG to ensure that the new generation has developed capacity to address the challenges faced in ocean governance and acquired the skills for a more innovative and integrated perspective.

Recommendations

In light of the issues and challenges identified, the following recommendations incorporated the 13 Principles of TOG and “which, if applied as a comprehensive set, could support the implementation of current ocean governance policies in more transformative ways”⁹⁰ (p.1588). In addition to the scientific and technical concepts of ocean governance, these recommendations must be taken into consideration when designing a curriculum framework for ocean governance in SIDS such as the Maldives.

Diverse incentives

- Investigate effective approaches for integrating human rights into ocean governance policies implementation mechanisms. Introduce ocean governance curriculum into primary, secondary and university level.

Biological diversity

- Enhance capacity for Strengthening the implementation and monitoring of Kunming-Montreal Global Biodiversity Framework

Social ecological systems

- Introduction of social and ecological frameworks to integrate interdisciplinary research

Human rights

- Introduction of the Human Rights Based Approaches to Ocean governance.
- Include human rights dimensions in laws and policies and the inclusion of local knowledge
- Develop actions for the protection of small-scale fishers

Urgent action

- Allocation of sufficient resources for conservation
- Strengthen monitoring and evaluation process
- Introduce remote monitoring and surveillance systems

Power dynamics

- Civil society engagements on addressing the gaps in implementation mechanisms
- Encourage the establishment NGOs on Ocean governance in the atolls and Islands.
- Capacity development and empowerment of local actors

Technology

- Exploring Artificial intelligence in marine spatial planning, investigation and protection of marine and coastal ecosystems.
- Invest in human resource building towards planning, managing and monitoring of ocean and maritime management and governance.
- Introduce remote monitoring and surveillance systems.

⁹⁰ Lombard, A. T., Clifford-Holmes, J., Goodall, V., Snow, B., Truter, H., Vrancken, P., ... & Morgera, E. (2023). Principles

for transformative ocean governance. *Nature Sustainability*, 6(12), 1587-1599

Metrics

- Make a strategic decision to incorporate relevant studies in curriculum and to conduct research that benefit Maldives in the area of ocean governance
- Constitute an Advisory Committee comprising representatives from the relevant faculties to provide advice and oversee the incorporation of courses into curriculums and to conduct of research in the areas of ocean governance
- Invest in human resource building towards planning, managing and monitoring of ocean and maritime management and governance
- Allocation of funds and resources to the Maldives National University to build its capacity in teaching and research in areas of ocean / maritime governance

Business engagement

- Engagement with the business sector to address unsustainable business practices

Integrated Ocean Management

- Strengthen good governance and incorporate transparency accountability mechanisms to ocean governance initiatives.
- Long term conservation policies and strategies streamlined to various stakeholder
- Strengthen institutional framework
- Streamline conflicting mandates
- Strengthening enforcement efforts

International Mechanisms

- Establish more collaboration with bilateral partners, multilateral organisations and specialised academic institutions for seeking development assistance towards building capacity of Maldives in ocean and maritime governance.
- Explore possibility of external funds and resources to develop capacity of the university in teaching and research in the area of ocean and maritime governance
- train lectures and researchers at the university to teach courses and to conduct research in the areas of ocean and maritime governance.
- Collaborate with international partners to mark on campuses of MNU the World Ocean Day which is 8 June to raise awareness on the importance of ocean and maritime affairs.
- Collaborate with regional and international partners to hold an annual conference or symposium to attract research and expertise in the area of ocean and maritime governance.

Policy Integration

- Aim to establish an integrated coordinating centre for developing and managing courses and research in the area of ocean and maritime governance.
- Adopt a comprehensive and integrated law to plan, manage and to monitor ocean governance and maritime affairs
- Adopt a National Strategic Integrated Plan for management of Ocean Governance and Maritime Affairs
- Establish an Integrated National Authority or Centre to coordinate and monitor management of ocean and maritime affairs in the country.

Conclusion

Ocean Governance is broad, transdisciplinary, and extends to the conservation of marine resources, biodiversity, maritime safety, and maritime security. As the economy of Maldives is based on marine resources, and the ocean remains a part of our livelihood, effective ocean governance is crucial for the Maldives⁹¹. Therefore, it is seen that effective and transformative ocean governance is possible with the concerted effort of all stakeholders, revealing the complexities involved and the legitimate interests of each party. This configuration provides opportunities for greater involvement of some stakeholders and others being obscured due to overlapping mandates. This absence of data resulting from inadequate proper monitoring has ultimately led to an improper evaluation of the actual threats posed to the Maldivian ocean. The Djibouti Code of conduct mandates each country to form a maritime risk register to identify emerging threats to maritime security and develop the right tools to ensure proper maritime safety and security governance still needs to be developed in the Maldives⁹².

While the country has ratified key maritime conventions and is also a member of related regional organizations and international organizations, introducing these conventions into national law and enforcing laws related to laws on maritime affairs are still challenging. It is seen that the gaps and challenges in maritime security in the Maldives include the challenges of introducing national laws relating to the mandatory IMO instruments to which it is party, including the legal basis for enforcement; lack of a maritime vision for decades derailed the shipping industry- a once the leading industry for foreign income to the nation. Another reason, is that adequate personnel with maritime expertise to assist in the implementation of necessary national laws. Also, the introduction of Merchant Shipping Act will foster the development and ensure the efficient maintenance of a mercantile marine ecosystem in a manner suited to serve the national interests⁹³.

The Maldives must also adopt an umbrella act to integrate all governmental and state agencies and to streamline their tasks and functions for effective management of ocean governance. This would in turn necessitate an integrated authority to be established to coordinate and monitor the progress of the tasks and functions. The Maldives also needs to compile a strategic vision in consultation with all stakeholders to achieve a common policy. Public awareness about the maritime domain the importance of the role of oceans in the country for the blue economy and the sustainability of island habitats and livelihood should also be raised nationwide.

For the implementation of SDG 14 (Life Below Water – conserve and sustainably use oceans, seas, and marine resources for sustainable development) and its ten targets need to be emphasized in the planning and implementation of the National Policy on Ocean Governance.

⁹¹ Shaany, M. & Ibrahim, Z. (2023, March 01). *Ocean Governance in Maldives: Legislative Gaps and Legal issues*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁹² Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference

Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

⁹³ Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

It is vital for the Maldives to plan systematically to cater for need for human resources and to begin capacity building in collaboration with countries, intergovernmental organizations and multilateral organizations with expertise in the field. In this respect, it is imperative to assist the Maldives National University in building its capacity for teaching and research in the field. It could also become the led agency or hub for research and pull together current research institutions and programs like Noo Raajje Program and the Maldives Marine Research Institute.

To promote linkages and to harmonize functions that are inter-related, it is essential to follow a scientific approach to laying the right foundation for creating a national mechanism of ocean governance.

In Conclusion, the ocean today is faced with innumerable challenges but if proper and collective actions are taken, oceans can provide solutions to most impending issues such as global warming, climate change, sea level rise, coastal erosion, warming of the seas, marine pollution, loss of marine biodiversity, depletion of food resources, disruption of marine transportation, plastic pollution, and poverty alleviation. In order to address the challenges identified, all the stakeholders, including government institutions, civil societies, the private sector, and local communities must work together towards identifying the current challenges and gaps and actively engage in the development and implementation of policies, laws, regulations, and practices that promote equitable, inclusive, and sustainable use and management of the ocean⁹⁴.

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Conflict of Interest

The authors of this publications certify that they have no conflict of interest

References

1. Naseer, A., and Hatcher, B. 2004. Inventory of the Maldives' coral reefs using morphometrics generated from Landsat ETM+ imagery. *Coral Reefs* 23(1), pp. 161-168.
2. Ministry of Environment and Energy, (2015). Fifth National Report of Maldives to the Convention on Biological Diversity. Maldives: Ministry of Environment and Energy.
3. UNEP (n.d). *Maldives - Country Profile*. <https://www.cbd.int/countries/profile?country=mv#:~:text=The%20Maldives%20has%20a%20total,and%20400%20species%20of%20mollusks>
4. Department of National Planning (2013). *Statistical Yearbook of Maldives 2013*. Male': Department of National Planning.
5. National Bureau of Statistics (2020). *Statistical Pocketbook of Maldives, 2019*. Ministry of National Planning & Infrastructure. <https://statisticsmaldives.gov.mv/nbs/wp-content/uploads/2019/07/Statistical-Pocketbook-2019.pdf>

6. Ajayi, T. R. (2000). *Mineral Resources of the Ocean*. [Conference Presentation] at the national workshop on ODINAFRICA.
7. UNCTAD (2021). Review of maritime transport 2021. UN.
8. Ministry of Legal Reform, Information and Arts (2008). *Functional Translation of the Constitution of the Republic of Maldives* 2008. <http://www.maldivesinfo.gov.mv/home/upload/downloads/Compilation.pdf>.
9. Maritime Zones of Maldives Act No. 6/96. https://www.un.org/depts/los/LEGISLATIONANDTREATIES/PDFFILES/MDV_1996_Act.pdf
10. Maritime Zones of Maldives Act No. 6/96.
11. Ministry of Fisheries and Ocean Resources (2019). *Fisheries Act of the Maldives Act No. 14/2019 Unofficial English translation*. <https://fisheries.gov.mv/images/Fisheries%20Act%20of%20the%20Maldives%2014-%202019%20%20English%20Version-1718880127733.pdf>
12. UNESCO-IOC (2021). The United Nations Decade of Ocean Science for Sustainable Development (2021-2030) Implementation Plan. UNESCO, Paris.
13. Kum, S. (2022). Towards The Development of an Integrated National Ocean Policy Framework for Guyana. [Thesis- United Nations – The Nippon Foundation of Japan Fellowship Programme 2022]. <https://apastyle.apa.org/style-grammar-guidelines/references/examples/conference-presentation-references>
14. Bailet, F. N. (2002). *Ocean Governance and its Implementation: Guiding Principles for the Arctic Region*. Arctic Council Protection of the Marine Environment [PAME] Working Group.
15. Tarmizi, M. K. T. (2010). *Institutional framework for ocean governance: a way forward*. [Dissertation, World Maritime University]. https://commons.wmu.se/cgi/viewcontent.cgi?article=1419&context=all_dissertations
16. Kimball, L. A. (2003). International ocean governance: using International Law and organizations to manage marine resources sustainably. IUCN
17. Tarmizi, M. K. T. (2010).
18. Kimball, L. A. (2003) and Tarmizi, M. K. T. (2010).
19. Kimball, L. A. (2003). International ocean governance: using International Law and organizations to manage marine resources sustainably. IUCN
20. Tarmizi, M. K. T. (2010). Institutional framework for ocean governance: a way forward. [Dissertation, World Maritime University]. https://commons.wmu.se/cgi/viewcontent.cgi?article=1419&context=all_dissertations
21. Kimball, L. A. (2003). International ocean governance: using International Law and organizations to manage marine resources sustainably. IUCN
22. Tarmizi, M. K. T. (2010). Institutional framework for ocean governance: a way forward. [Dissertation, World Maritime University]. https://commons.wmu.se/cgi/viewcontent.cgi?article=1419&context=all_dissertations

⁹⁴ Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference

Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

23. Kimball, L. A. (2003) and Tarmizi, M. K. T. (2010).
24. Tarmizi, M. K. T. (2010). Institutional framework for ocean governance: a way forward. [Dissertation, World Maritime University].
https://commons.wmu.se/cgi/viewcontent.cgi?article=1419&context=all_dissertations
25. United Nations (2022). Report of the 2022 United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development. Lisbon, 27 June–1 July 2022. A/CONF.230/2022/14.
<https://docs.un.org/en/A/CONF.230/2022/14>
26. United Nations (2022). Report of the 2022 United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development. Lisbon, 27 June–1 July 2022. A/CONF.230/2022/14.
<https://docs.un.org/en/A/CONF.230/2022/14>
27. Borgese (2001) as cited in Tarmizi, M. K. T. (2010). *Institutional framework for ocean governance: a way forward*. [Dissertation, World Maritime University].
https://commons.wmu.se/cgi/viewcontent.cgi?article=1419&context=all_dissertations
28. Tarmizi, M. K. T. (2010). Institutional framework for ocean governance: a way forward. [Dissertation, World Maritime University].
https://commons.wmu.se/cgi/viewcontent.cgi?article=1419&context=all_dissertations
29. Mustafar, A. B. M. (2001). *Ocean governance*. [Dissertation, World Maritime University]. Maritime Commons, the Digital Repository of World Maritime Commons
30. Borgese, E. M.H. (2019). The Future of Ocean Governance and Capacity Development: Essays in Honor of Elisabeth Mann Borgese (1918-2002). *The International Ocean Institute, Canada* (Eds). Koninklijke Brill NV, Leiden, The Netherlands.
[file:///Users/aisha/Downloads/9789004380271_webready_content_text%20\(1\).pdf](file:///Users/aisha/Downloads/9789004380271_webready_content_text%20(1).pdf)
31. Tarmizi, M. K. T. (2010). *Institutional framework for ocean governance: a way forward*. [Dissertation, World Maritime University].
https://commons.wmu.se/cgi/viewcontent.cgi?article=1419&context=all_dissertations
32. Blythe, J. L., Armitage, D., Bennett, N. J., Silver, J. J., & Song, A. M. (2021). The politics of ocean governance transformations. *Frontiers in Marine Science*, 8, 634718.
33. Lombard, A. T., Clifford-Holmes, J., Goodall, V., Snow, B., Truter, H., Vrancken, P., ... & Morgera, E. (2023). Principles for transformative ocean governance. *Nature Sustainability*, 6(12), 1587-1599.
34. University of Plymouth (n.d). *Transformative ocean governance and just transitions towards a sustainable blue economy*. <https://www.plymouth.ac.uk/research/marine-social-science-research-unit/transformative-ocean-governance-and-just-transitions-towards-a-sustainable-blue-economy>
35. Lombard, A. T., Clifford-Holmes, J., Goodall, V., Snow, B., Truter, H., Vrancken, P., ... & Morgera, E. (2023). Principles for transformative ocean governance. *Nature Sustainability*, 6(12), 1587-1599
36. Lombard, A. T., Clifford-Holmes, J., Goodall, V., Snow, B., Truter, H., Vrancken, P., ... & Morgera, E. (2023). Principles for transformative ocean governance. *Nature Sustainability*, 6(12), 1587-1599.
37. Bueger, C., & Edmunds, T. P. (2020). Blue Crime: Conceptualising Transnational Organised Crime at Sea. *Marine Policy*, 119, Article 104067.
<https://doi.org/10.1016/j.marpol.2020.104067>.
<https://research->
38. Hilmy, C.I. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
39. Ministry of Fisheries, Marine Resources and Agriculture (2019) The Maldives National Plan of Action to prevent, deter and eliminate illegal, unreported and unregulated fishing. Malé, Republic of Maldives
40. Ministry of climate Change Environment and Energy and UK international Development (2024) *Maldives national framework for management of protected & conserved areas 2024* – 2029.
<https://protectedareas.environment.gov.mv/storage/uploads/s/8roOj7qP/bwhj7g3y.pdf>
41. Jauhary, A.R. (2023, March 01). *Ocean governance and Maldives efforts towards managing marine resources*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
42. FAO (2016) Illegal, unreported and unregulated fishing. <https://openknowledge.fao.org/server/api/core/bitstreams/7c0a9022-47cf-46d6-9347-00369a0e86f8/content>
43. Hilmy, C.I. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
44. Maldives Bureau of statistics (2019). Statistical Pocketbook of Maldives, 2019.
<https://statisticsmaldives.gov.mv/nbs/wp-content/uploads/2019/07/Statistical-Pocketbook-2019.pdf>
45. Jauhary, A.R. (2023, March 01). *Ocean governance and Maldives efforts towards managing marine resources*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
46. The Maldives Journal (2023, April 29). *Maldives Loses 45,331 sq km of Exclusive Economic Zone to Mauritius*. <https://themaldivesjournal.com/49942>
47. Hilmy, C.I. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
48. UNODC (2005, September). *South Asia Regional Profile: the Maldives*.
https://www.unodc.org/pdf/india/publications/south_Asia_Regional_Profile_Sept_2005/11_maldives.pdf
49. Hilmy, C.I. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
50. Hoegh-Guldberg, O., & Bruno, J. F. (2010). The impact of climate change on the world's marine ecosystems. *Science*, 328(5985), 1523-1528.
51. Gamfeldt, L., Lefcheck, J. S., Byrnes, J. E., Cardinale, B. J., Duffy, J. E., & Griffin, J. N. (2015). Marine biodiversity
- 52.

53. and ecosystem functioning: what's known and what's next?. *Oikos*, 124(3), 252-265.
54. Costanza, R., Andrade, F., Antunes, P., van den Belt, M., Boesch, D., Boersma, D., ... & Young, M. (1999). Ecological economics and sustainable governance of the oceans. *Ecological economics*, 31(2), 171-187.
55. Crain, C. M., Halpern, B. S., Beck, M. W., & Kappel, C. V. (2009). Understanding and managing human threats to the coastal marine environment. *Annals of the New York Academy of Sciences*, 1162(1), 39-62.
56. Rifga.M. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium 2023] Faculty of Arts, Male' Maldives.
57. Doney, S. C. (2010). The growing human footprint on coastal and open-ocean biogeochemistry. *Science*, 328(5985), 1512-1516.
58. McMichael, A., Scholes, R., Hefny, M., Pereira, E., Palm, C., & Foale, S. (2005). Linking ecosystem services and human well-being. *Ecosyst. Hum. Well-Being*, 5, 43-60.
59. Jauhary, A.R. (2023, March 01). *Ocean governance and Maldives efforts towards managing marine resources*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
60. Emerton, L., Baig, S., & Saleem, M. (2009). *Valuing biodiversity: the economic case for biodiversity conservation in the Maldives*. AEC Project Report, Ministry of Housing, Transport and Environment, Government of the Maldives and UNDP, Maldives. Available at: <http://cmsdata.iucn>
61. Rifga.M. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium 2023] Faculty of Arts, Male' Maldives.
62. Hilmy, C.I. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
63. Ministry of Environment (1993). Law No: 4/93 Environment Protection and Preservation Act of Maldives. https://www.environment.gov.mv/biodiversity/wp-content/uploads/2016/01/environment_protection_and_preservation_act_1993_english.pdf
64. Ministry of Environment, Energy and Water (2007). Environment Impact Assessment Regulation. <https://old.mvlaw.gov.mv/pdf/gavaid/minHousing/27.pdf>
65. Rifga.M. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium 2023] Faculty of Arts, Male' Maldives.
66. Ministry of climate Change Environment and Energy and UK international Development (2024) *Maldives national framework for management of protected & conserved areas 2024 – 2029*.
67. Rifga.M. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium 2023] Faculty of Arts, Male' Maldives.
68. Ministry of climate Change Environment and Energy and UK international Development (2024) *Maldives national framework for management of protected & conserved areas 2024 – 2029*.
69. Shaheem, F.A., & Shareef, M. (2021) Noo Raajje (2021) Noo Raajje legal and policy framework assessment report. the Blue Prosperity Coalition and Government of Maldives. https://www.nooraajje.org/_files/ugd/47d1fd_3604a93da0184e86804cb379e28c9f59.pdf
70. Rifga.M. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium 2023] Faculty of Arts, Male' Maldives.
71. Ministry of climate Change Environment and Energy and UK international Development (2024) *Maldives national framework for management of protected & conserved areas 2024 – 2029*.
72. Rifga.M. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium 2023] Faculty of Arts, Male' Maldives.
73. Ministry of climate Change Environment and Energy and UK international Development (2024) *Maldives national framework for management of protected & conserved areas 2024 – 2029*.
74. Mundy, E. (2017). Seasonal hotspots of mega-fauna and vessel activity in south ari marine protected area, Maldives (Doctoral dissertation, University of York).
75. Harvey-Carroll, J., et al. (2021). "The impact of injury on apparent survival of whale sharks (*Rhincodon typus*) in South Ari Atoll Marine Protected Area, Maldives." *Scientific Reports* 11(1): 937.
76. Ministry of climate Change Environment and Energy and UK international Development (2024) *Maldives national framework for management of protected & conserved areas 2024 – 2029*.
77. Ministry of climate Change Environment and Energy and UK international Development (2024) *Maldives national framework for management of protected & conserved areas 2024 – 2029*.
78. Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
79. Hilmy, C.I. (2023, March 01). *Maritime Security and Ocean Governance: Strategic and Defence Perspective*. [Conference Presentation, Ocean Governance Symposium 2023] Faculty of Arts, Male' Maldives.
80. Maritime Zones of Maldives Act No. 6/96. https://www.un.org/depts/los/LEGISLATIONANDTREATIES/PDFFILES/MDV_1996_Act.pdf
81. Shaany, M. & Ibrahim, Z. (2023, March 01). *Ocean Governance in Maldives: Legislative Gaps and Legal issues*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
82. Shaany, M. & Ibrahim, Z. (2023, March 01). *Ocean Governance in Maldives: Legislative Gaps and Legal issues*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
83. Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
84. Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

85. Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
86. Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
87. Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
88. Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
89. Shaany, M. & Ibrahim, Z. (2023, March 01). *Ocean Governance in Maldives: Legislative Gaps and Legal issues*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
90. Shaany, M. & Ibrahim, Z. (2023, March 01). *Ocean Governance in Maldives: Legislative Gaps and Legal issues*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
91. Shaany, M. & Ibrahim, Z. (2023, March 01). *Ocean Governance in Maldives: Legislative Gaps and Legal issues*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
92. Lombard, A. T., Clifford-Holmes, J., Goodall, V., Snow, B., Truter, H., Vrancken, P., ... & Morgera, E. (2023). Principles for transformative ocean governance. *Nature Sustainability*, 6(12), 1587-1599.
93. Shaany, M. & Ibrahim, Z. (2023, March 01). *Ocean Governance in Maldives: Legislative Gaps and Legal issues*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.
94. Rasheed, C. A (2023, March 01). *Ocean Governance - Ministry of Transport and Civil Aviation*. [Conference Presentation, Ocean Governance Symposium] Faculty of Arts, Male' Maldives.

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