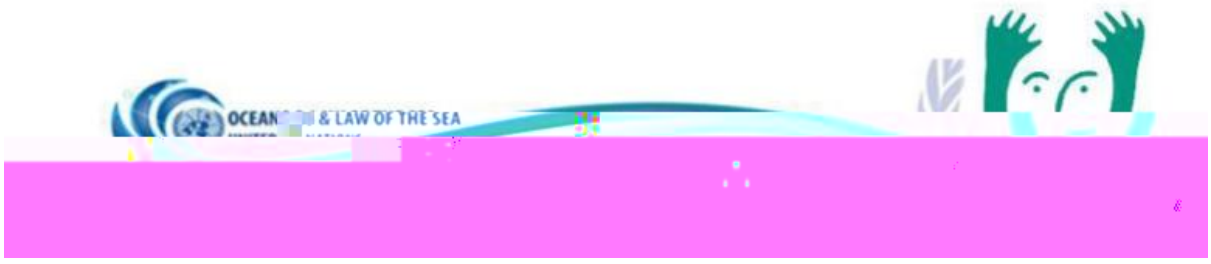
Maritime Boundaries in the Pacific and the way forward with Marine Spatial Planning

Litia Gaunavou

United Nations The Nippon Foundation of Japan Fellowship 2023



Disclaimer

The views expressed herein are those of the author and do not necessarily reflect the views of the Government of Fiji, the United Nations, the Nippon Foundation of Japan or the World Maritime University.

Acknowledgement

Overall, I am extremely grateful to God Almighty for this appointment and grounding me

List of Acronyms

ABNJ: Areas Beyond National Jurisdiction

ALCs: Automatic Location Communicators

BBNJ: Biodiversity Beyond National Jurisdiction

CC: Climate Change

CLCS: Commission on the Limits of the Continental Shelf

CROP: Council of Regional Organisations in the Pacific

CS: Continental Shelf

CSIRO: Commonwealth Scientific and Industrial Research Organisation

CMT: Customary marine tenure

DWFN: Distant Water Fishing Nations

DOALOS: Division for Ocean Affairs and the Law of the Sea

EEZ: Exclusive Economic Zone

ECS: Extended Continental Shelf

ECOSOC: United Nations Economic and Social Council

EPOG: Enhancing Pacific Ocean Governance

EU: European Union

FFA: Forum Fisheries Agency

FFC: Forum Fisheries Committee

FLMMA: Fiji Locally Managed Marine Areas

GA: General Assembly

GIZ: Deutsche Gesellschaft für Internationale Zusammenarbeit

ICJ: International Court of Justice

ITLOS: International Tribunal on the Law of the Sea

ITRF: International Terrestrial Reference Frames

IUCN: International Union for Conservation of Nature

ISO/TC211: International Organization for Standardization, Technical Committee 211

JMZ: Joint Management Zone

UN: United Nations

UNCLOS: United Nations Convention on the Law of the Sea

LOSC: Law of the Sea Convention

LAT: Lowest Astronomical Tide

LTE: Low-tide elevation

MACBIO: Marine and Coastal Biodiversity Management in Pacific Island Countries

MACC: Maritime Affairs Coordinating Committee

MARZONE: Maritime Zone boundary

MCS: Monitoring Control Surveillance

MPAs: Marine Protected Areas

MSP: Marine Spatial Planning

MSWG: Marine Sector Working Group

MTU: Mobile Transmitting Unit

NM: nautical miles

NOC: National Oceanography Centre

PCA: Permanent Court of Arbitration

RFMO: Reginal Fisheries Management Organization

PGSC: Pacific Geospatial and Surveying Council

PIFS: Pacific Island Forum Secretariat

PICTs: Pacific Island countries and territories

PSIDS: Pacific Small Islands Developing States

RMBP: Regional Maritime Boundaries Project

SCS: South China Sea

SDGs: Sustainable Development Goals

SOPAC: South Pacific Applied Geoscience Commission

SPREP: Secretariat of the Pacific Regional Environment Program

SPC: The Pacific Community

SQ KM: square kilometre

SSP: standards, specifications, and procedures

TC: Tropical Cyclones

TS: Territorial Sea

TMSP: Transboundary Marine Spatial Planning

UK: United Kingdom

UN-GA: United Nations General Assembly

UN-GGIM: United Nations Global Geospatial Information Management

UN-IGIF: United Nations Integrated Geospatial Information Framework

UNFSA: United Nat

Table of Contents

Introduction:

The vast coverage of the Pacific Ocean encompasses an intricate tapestry of diverse ecosystems, cultures, and maritime interests. Amidst this expansive sphere, resides the group of predominantly Pacific Island Countries and its Territories (PICTS).[1] Majority of these island States are arguably geographically disadvantaged and based on its land to water ratio are being further classified as “large ocean States" (LOS).[2] More specifically and in reference to the scope of this research, information gathered will be regarding the Pacific Small Islands Developing States (PSIDS)[3] and their specific interest in reaching their SDG targets.

The PICTs are trying to address the numerous challenges induced by their environment, especially in an era defined by global climate change and, indeed, climate crisis. Among these challenges is the identification and clarification of baselines along the coast, the delineation of the outer limits to zones of maritime jurisdiction and maritime boundaries delimitation. These tasks are of paramount importance for these island nations as they define the scope of their national maritime jurisdictions which, in turn, is fundamental to the sustainable management of marine resources.[4]

Moreover, the need for effective ocean governance and cooperation in the Pacific region has become ever more urgent, owing to increasing global recognition of its significance. Fortunat

has been invested by the PIF leaders on the protection of the region's largest economic resource. Through the development of policies, treaties, and communiques that that have gained recognition on the global stage, the concept of regionalism has consistently conveyed its message.[6] An overview of regional policies and frameworks will be covered in the following chapters which has made significant impact on the advancement of both technical and policy initiatives in the region.[7]

From throughout history to the present day, the ocean has been a source of many Pacific country's food security, transportation, traditional worship grounds and for many generations it has deep-rooted meanings.[8] Consequently,2 Tf129* nBT q2i7g

section is a brief history in the development of the regional ocean policy as it has paved the

However, the Pacific Plan did not lead to practical action and failed to provide the fundamental guidance[18] that was necessary for driving solution through political leadership.[19]

While the PIROF and PIROF-

The EPOG funded and materialized the prerogatives of the FOP, including the establishment of the Office of the Pacific Ocean Commissioner (OPOC)[32] . These developments also involved the appointment of the Secretary General of the Pacific Islands Forum Secretariat (PIFs) as the Pacific Ocean Commissioner and leader for regional coordination and ocean advocacy in an initial strategic move. The main intent of this role was to potentially provide a "*bridge that* [33]without bias or being beholden to any specific interest. Additionally, a cross-sectoral entity named the Pacific Ocean Alliance (POA) was established[34] that was designed to oversee the work of the OPOC and carry forth its objectives in discussion that would eventually lead to good ocean governance.

By 2017, the EPOG received tremendous support from its regional partners and the stakeholders from the pilot countries.[38] The outcomes of the work done for strategic priorities one and two and funding continued for the work of OPOC and most importantly, the maritime boundaries work in the region was also extended through renewed collaborations of the consortium of partners.

The following sections will outline the history and the importance of integrated ocean

Pacific island countries have established maritime zones and limits, including shared boundaries, high sea limits, and extended continental shelf areas.

Pacific island countries have strengthened ocean management, including systems, tools, and engagement mechanisms supporting the application of maritime zone data for blue economic development.[44]

The project has assisted the fourteen members[45] countries in the technical and legal aspects. This included capacity building workshops, field works on basepoint surveys, updating the national legislation to include the coordinates of the basepoints to final submission to United Nations-Division for Oc

What follows next?

In 2021, SPC together with its consortium partners and member countries celebrated the 20th year of the project. The efforts extend beyond a mere procedural fulfillment of the UNCLOS or a superficial accomplishment of an SDG target. Great remarks were made to the existential work of the region in the demarcation of more than fifty percent of maritime boundaries within the region as it entails more than routine administrative tasks.

In its end of investment evaluation report, the Department of Foreign Affairs and Trade (dFAT) of Australia's stated the new project design directions. [50] Now managed by SPC with technical assistance of the Geoscience Australia (GA), the project will:

> *Support the specific needs and interest of the member countries.*
>
> *Partially oversee the work of the extended continental shelf (ECS) that countries have submitted to the UN in 2009[51] and thereafter.*
>
> *on climate induced sea level rise [52]*
>
> *Develop strategic engagement activities that will gain political traction that will influence the progression of stagnant maritime boundaries.*

The fourth directive can be illusive to grasp but just as important as political consensus remains elusive, given the divergent priorities of various member countries; declarations made during one regional gathering might not necessarily align with the prevailing focus at a given moment.[53] This drags the work even further which diverges from the initial funding goals and a new plan of action is required to push stagnant boundary negotiations to reach its end goal.

Marine Spatial Planning A tool for initiating boundary delineation?

Therefore, the notion of MSP has surfaced as a promising path for navigating the way forward in dormant maritime boundary discussions in terms of guided pre delimitation context and as an added activity after maritime boundary delimitations. While this idea has been previously introduced in the region in a conservation sense, its complete execution as a catalyst for maritime boundaries negotiations has not yet been realized.

While not widely embraced in the Pacific region, the practice of MSP aimed at ensuring the security of shared resources like oil, gas, and petroleum has been conducted in other regions

[50] Pacific Maritime Boundaries Project—*End of Investment Evaluation DFAT Management Response*, 2020.
[51] Artack, above n 46.
[52] Above n 8.
[53] Pratt., C, and Brierley., C, *Ocean Governance, and the Ocean Commissioner in the Pacific*, 2016.

recognizing *the ocean as the bridge that links* between communities and the importance of declaring maritime boundaries for enhancing sovereign rights and access to economic

( )] TJ ET Q q 1.00000 0 0 1.00000 71 0 595.32 841.92 reW* nBT/F1 12 Tf1 0 0 1155.662 717.3 Tm0 g0 G[(Hdnce,o)325itr

Continental Shelf (CLCS) on the presence of their ECS.[82] This is specified in article 76 paragraph 8 of UNCLOS. [83]

on the limits of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured shall be submitted by the coastal State to the Commission on the Limits of the Continental Shelf set up under Annex II on the basis of equitable geographical representation. The Commission shall make recommendations to coastal States on matters related to the establishment of the outer limits of their continental shelf. The limits of the shelf established by a coastal State on the basis of these

Table 1: Authoritative EEZ areas for the PICs and its territories. (Inclusive of land areas) Source: SPC

[82] Ibid,

As LOS, many PICs, experience various factors that hinders progress on ocean-based development.[84] Countries through their ocean and fisheries ministries work with regional organizations for capacity building, facilitate discussions, technical assistance, and promote cooperation in the ocean governance space.[85]As such, the SPC and PIFS has been playing a

Moreso, upon the conclusion of the EPOG funding,[89]two thirds of the Pacific's maritime boundaries have been negotiated and submitted to UN-DOALOS.[90] Nonetheless, there remains PICs that have yet to even deposit their charts or lists of geographical coordinates and is the current goal of the RMBP to formalize these boundary negotiations through inventive solutions as mentioned in the prelude.

for any changes brought about by shifts in the basepoints to be addressed and revised accordingly by approved nominated technical agencies.

Dispute Resolution and Transboundary Resource Sharing: The treaty includes mechanisms for resolving any future disputes related to its interpretation or implementation through peaceful negotiations accepted under international law.

Marine Environment Protection: The treaty emphasizes the sustainable management of the living resources within its shared EEZs. In addition to defining maritime boundaries, the treaty fosters continuous collaboration between FSM and RMI concerning marine resources, environmental conservation, and economic advancement.

Polynesia Group

Agreement between the Government of the Cook Islands and the Government of Niue Concerning the Delimitation of the Maritime Boundaries between the Cook Islands and Niue[96]

This treaty was signed on the 4th of August 2010 and entered into force on 12th November 2012 with 4 articles that recognized the need to an equitable maritime boundary delimitation. The key features were:

EEZ: The use of equidistance method which was determined from the baseline by which the territorial sea was measured.

List of the geographic coordinates: Table of coordinates which shows the intersection from the equidistant measurement.

Transboundary Resource Sharing: The treaty underlines measures for exploiting accumulation of minerals if deposit is evident on one side of the boundary and its equitable sharing.

[96] Government of the Cook Islands and Government of Niue, *Agreement between the Government of the Cook Islands and the Government of Niue Concerning the Delimitation of the Maritime Boundaries between the Cook Islands and Niue*, 2012.

Subsection A.2: Baselines - The starting point.

Within the broader scope of this research, it is important to examine the baseline laws as it underpins the various aspects for defining Pacific maritime zones. Moreover, this section merits a brief explanation of baseline history as it forms a background in the upcoming section on sea level rise related to climate changes where baselines are of concern.

Drafters of UNCLOS have provided in a series of articles; the guiding principles for states establishing their baselines.[99] They have varied characteristics and applications which has evolved over time.[100] The evolution of baseline concepts has been influenced by ongoing legal and diplomatic progress, offering guidelines, interpretations, and conflict resolutions.[101] The 1958 Geneva Convention on the Territorial Sea and Contiguous Zone provided some guidance on baselines, but it was the UNCLOS 1982 that significantly advanced the legal framework for baselines and maritime boundary delimitation with inclusion of the EEZ. [102]

Through the careful demarcation of these baselines, nations can determine their maritime boundaries and in establishing a provisional equidistance line between shared boundaries. [103] However, baseline discussions have also been the cause of tension for coastal and developed.[104] Many questions based on meaning, definition of features on coast such islands, reefs, bays, and the lack of consensus during its development and still an on-going debate in some international cases presented at the ICJ and ITLOS. [105]

The presence of varied baselines exists in the Pacific region. The baseline set up for the Pacific has led to the following delineations of the Internal Waters, Territorial Sea (12NM), Contiguous Zone (24NM), EEZ 200NM) and the ECS (beyond 200NM).[106] The latter maritime limit has its own set of complex measurements and provisions stipulated in Article 76. k1rvh5( )] TJETQqE

the recent milestone of the Biodiversity Beyond National Jurisdiction (BBNJ) agreement, PICs should consider formally depositing their EEZ and considering the new treaty would implicate to their sovereignty.[107]

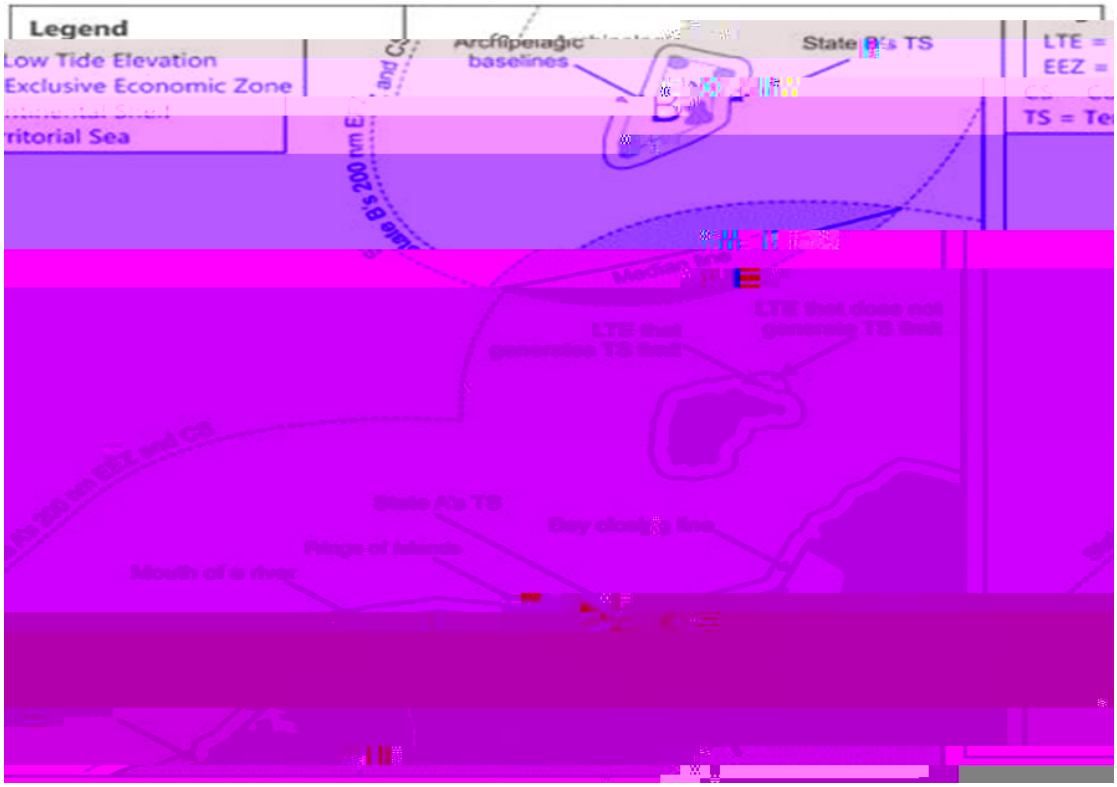


Figure 5: Maritime Limits and Baseline Types

Source: Lathrop Baselines

Baselines of the Pacific

In adherence to Article 5 of UNCLOS, the standard measurements are typically derived from the low-water line along the coast. [108] It is imperative to note that for some PSIDS, a distinctive topographical feature exists in the form of an outer connection comprising barrier or fringing reefs. This is apparent in Article 6 of UNCLOS and the application of the seaward limit of the reef edge using the lowest astronomical tide (LAT) as the reference mark becomes a practical consideration in the determination of baseline measurements in this land formation.[109]

---

[107] Agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, signed 19th of June 2023.

[108] Art 5, UNCLOS 1982.

[109] Artack, E., and Kruger, J., *Status of maritime boundaries in Pacific Island countries*, 2015. LAT is defined as:

See also*:* Dorst, L., Slobbe, C., and Verlann, M., *Lowest Astronomical Tide as Chart Datum*: definition and safety aspects, 2014.

1. An archipelagic State may draw straight archipelagic baselines joining the outermost points of the outermost islands and drying reefs of the archipelago provided that within such baselines are included the main islands

States of Micronesia, Palau and Papua New Guinea have revised new maritime zone legislation and have deposited the outer limits of their maritime zones through coordinates.

The surveying and validating of basepoints are a fundamental entry point in maritime claims.[133] Given the resurgence of international interest in exploring and exploiting in the Pacific region and a growing incidence of illegal, unreported, and unregulated (IUU) fishing activities, support by the government on the significance of securing basepoints will be beneficial.

Therefore, baselines, in their various manifestations, serve as the legal representation of the coast. [134] The use of coordinates to establish maritime boundary treaties reinforces stability in the context of SLR as basepoints in coastlines are used in negotiations of the boundary by Parties. The coordinates provide the exact location of a maritime boundary and creates certainty of where the boundary line is located. Once the treaty is in force, a boundary defined in this way has a legal definition that is separated from the coastlines of the Parties. This is the case even where the treaty provides that the coordinates were agreed using the principle of equidistance.

[133] Peng, R.-C & Wang, J.-Y & Tian, Z. & Guo, L.-X & Chen, Z.-P., *A New Technique about Selecting Base*

Fiji	Topographic Maps, Aerial Photos, Hydrographic Charts	1:50,000 1:10,000
Kiribati	WorldView-2	0.6 meters
Marshall Islands	WorldView-	

External support rendered by the GA has been instrumental in the provision of technical support in the areas of software provision and training in the Pacific on the Maritime Zone boundary (MARZONE) software.[147] Developed by the University of Melbourne with a

Pre-processing done primarily aims to eliminate the atmospheric noise caused by terrain reliefs. Other processes that follow compensates includes Haze removal, Pan-sharpening and Ortho-correction that has the digital elevation models included. Software capabilities can also be attributed to significant image analysis and as time progressed, so have software capabilities in the enabl

specifications to the Australian Maritime Boundaries Information System (AMBIS). Unlike the MS based data storage systems, the PRIMBIS is a collection of fundamental attributes that facilitate data manipulation within GIS such as basepoints and geographic features like islands and turning points of baselines, lines (representing baselines), and polygons (encompassing features like islands and mainland regions).[158]

More recent and current systems built on open-sourced platforms such as PacGeo and Drupal has proven to be cost efficient. To date, all maritime boundaries in the Pacific are available through the Pacific Data Hub (PDH) and is currently the regions most consolidated web-application for data dissemination to PICs.[159]

Technical Institutional Support

As previously mentioned, channelling GIS into the work of maritime boundaries delimitation and developments is an integration of various datasets and requires specialized skillsets. However, rendering a support system that is fully functional and one that will not require replication is of importance to PSIDs. Realizing the need for a

Framework (UN-IGIF) has been reflected in Tonga and Fiji's national geospatial information management action plan.[163]The UN-IGIF was adopted by the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) under the United Nations Economic and Social Council (ECOSOC) resolution 2011/24.[164]

The UN-GGIM is a member led intergovernmental mechanism established to tackle worldwide issues concerning the utilization of geospatial data, both in developmental frameworks and as

Subsection B.2: Monitoring technologies

Operationalizing GIS derived Maritime Boundaries Data in the Vessel Monitoring System (VMS)

Location-based technology idealized into graphical interface and associated contents are progressively integrating into daily life and becoming more universal.[175] The mechanism of the VMS involves the use of satellite technology to track and transmit real-time data on the positions and activities of vessels to the designated monitoring authorities. This data is typically relayed at regular intervals, allowing for effective surveillance of the maritime activities.[176]

Playing a vital role in monitoring, control, and surveillance (MCS) activities, VMS became an instrumental fisheries management tool when UNCLOS 1982 expanded national maritime boundaries from 12NM to 200NM. In practicality, this meant restricted and limited vessel monitoring and compliance w(5)-105(compl)-4(ia)7(nce)-106(w(5)-105(compl)-4(ia)7(nce)-10l)-4(imit)0.0

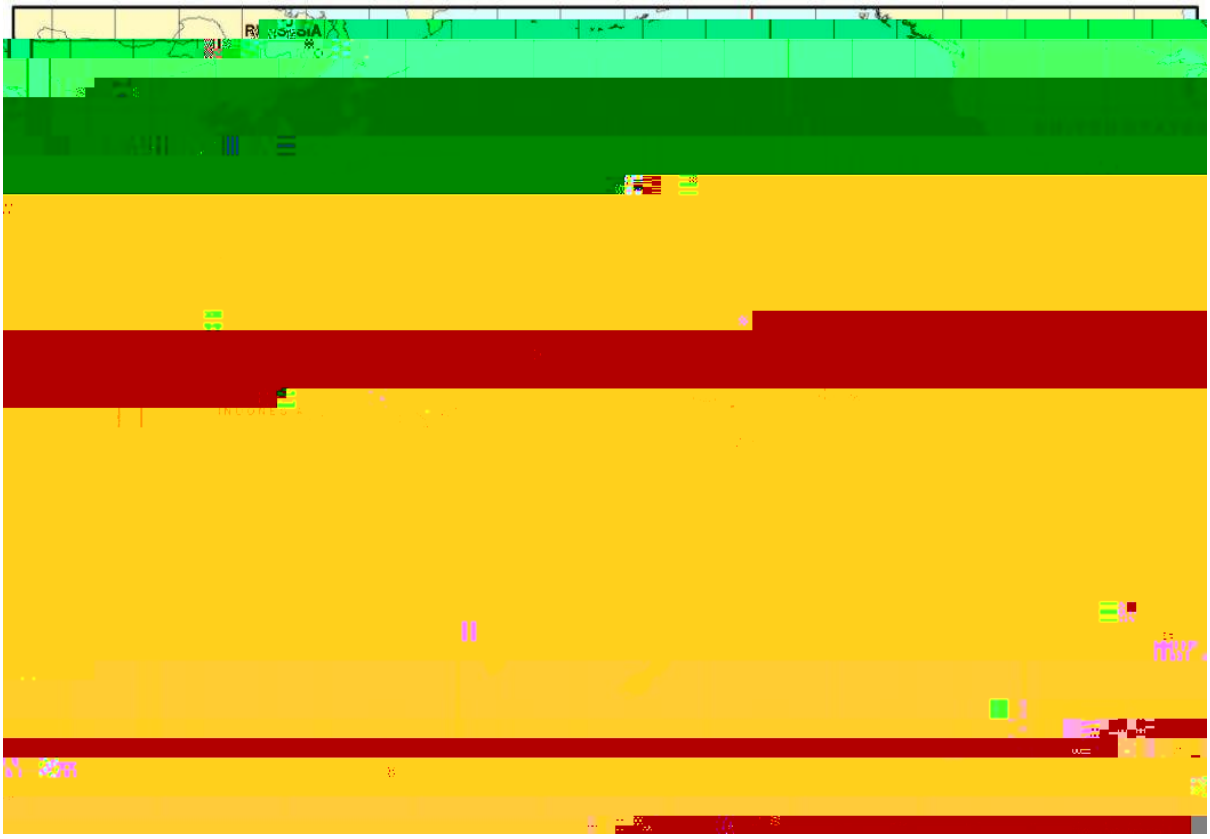


Figure 4: WCPFC areas of jurisdiction in the South Pacific Ocean. Source: WCPFC

Countries covered under WCPFC are Australia, Canada, China, Cook Islands, Federated States of Micronesia, Fiji, France, Indonesia, Japan, Republic of Kiribati, Republic of the Marshall Islands, Republic of Nauru, New Zealand, Niue, Republic of Palau, Independent State of Papua New Guinea, Republic of the Philippines, Republic of Korea, Independent State of Samoa, Solomon Islands, Kingdom of Tonga, Tuvalu, United Kingdom of Great Britain and Northern Ireland in respect of Pitcairn, Henderson, Ducie and Oeno Islands, United States of America and Republic of Vanuatu.[180]

[180] Vessel Monitoring System | WCPFC. (n.d.). Www.wcpfc.int. Retrieved November 8, 2023, from https://www.wcpfc.int/vessel-monitoring-system

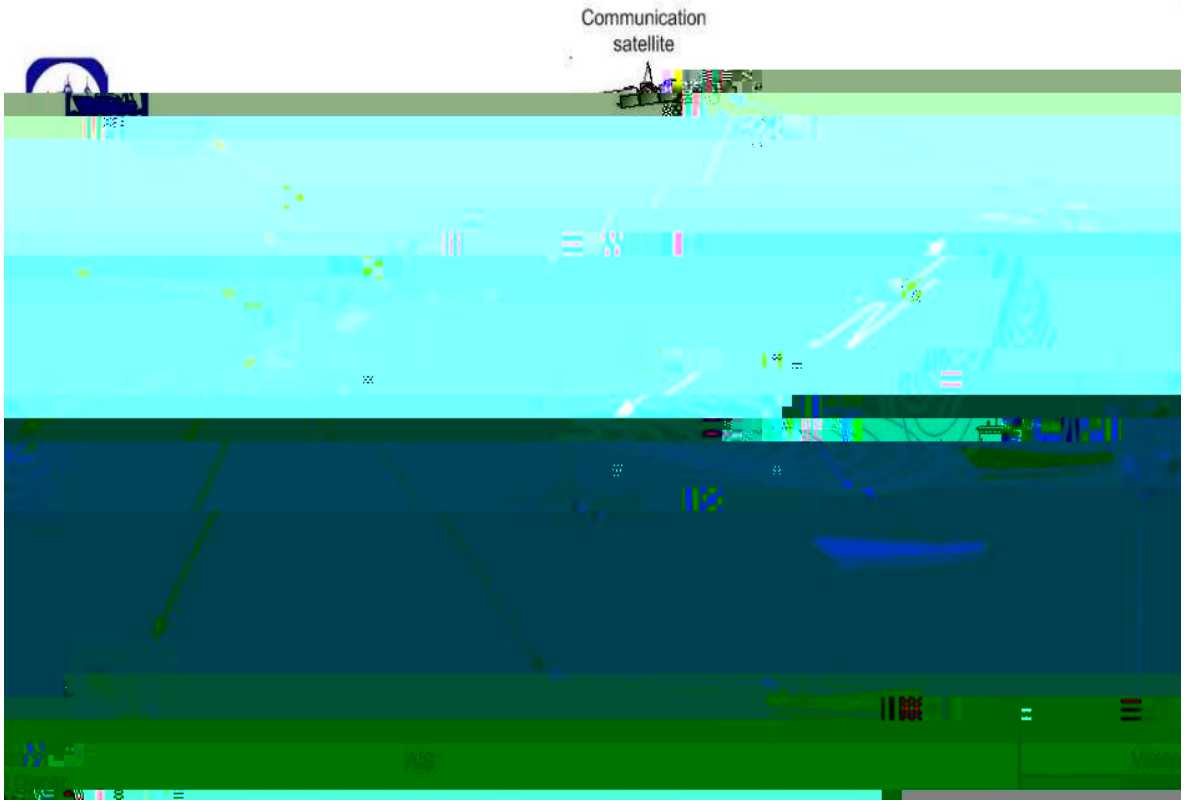


Figure 5: VMS Cycle

Source: Trackwell[181]

In 2009, the Pacific VMS was operative under a Service Law Agreement (SLA) between FFA and WCPFC as pressures from distant water fishing nations (DWFN) and overexploitation of tuna stock became evident.[182] The Pacific VMS would permit vessel to submit reports to the WCPFC through two methods: i) directly to the WCPFC VMS, or ii) through the FFA VMS to the WCPFC.[183]

In 2015, the Forum Fisheries Committee (FFC), the governing body of FFA, recognized the need to update VMS maps following the update of maritime boundaries coordinates into national legislation and deposit by FFA members to the UN-DOALOS.[184] Members also acknowledged the importance of using a uniform dataset among stakeholders deemed it necessary to authorize SPC to provide authoritative maritime boundaries for the updates of the

[181] TrackWell VMS Presentation in Barbados. (2008). https://sustainabledevelopment.un.org/content/documents/3342fisheries_gunnarsson.pdf

[182] Richards, A., Application of the FFA member countries Fishing Vessel Monitoring System to track live reef fish transport vessels, 1999. See also:

[183] WCPFC, Commission VMS Standard Operating Procedures (SOPs), 2022.

[184] Yaya, Filimoni., 2020, FFA-SPC SLA Project & Maritime Boundary Handover Report. See also: FFA, 93rd FFC Official Meeting, 2015.

FFA VMS.[185]Hence, an SLA was established between FFA and SPC in 2019 to support this milestone agreement as maritime data used previously did not accurately reflect PICs maritime boundary deposited under UNCLOS.[186] Today, the integration and utilization of authorized geospatial information concerning maritime boundaries has been integrated in the Pacific VMS and forms an integral component of MCS in the fisheries department of FFA.[187]

FFA VMS Operations

An Automated Alert Notifications can be generated when fishing vessels are close to or are inside a particular EEZ or the maritime protected area (MPA). The system can set up a proximity alert notification that can be generated when a vessel exits or enter a zone. Close activity monitoring is conducted if a vessel has already entered the zone and will be continuously monitored before its exit.[188]

Chapter 2: Challenges and Opportunities in Managing Maritime Boundaries in the Pacific

Section A: Overview of the challenges facing Pacific Island Countries (PICs) in the maritime boundaries management.

Subsection A.1: Limited resources for enforcement

The effectiveness of maritime boundary enforcement hinges on a nation's ability to enforce its laws at sea. Surveillance and monitoring represent a significant hurdle when it comes to enforcing maritime boundaries in the Pacific due to resource constraints. In the Pacific region, remote island nations often lack the financial means to fund the port infrastructure, harbors, and communication systems necessary for efficient enforcement efforts.[192]

Inadequate resources for enforcing maritime boundaries can give rise to security challenges as well. The expansive and secluded expanse of the Pacific renders it an appealing corridor for illicit activities, including drug trafficking, human smuggling, and piracy.[193] Insufficient surveillance and law enforcement capacities heighten the susceptibility of these nations to security hazards, potentially leading to instability.

The region is reportedly a target for “Blue Boats” illegally invading the EEZs and at times, reached the territorial seas of most PICs for high-valued beach-de-mer.[194]Such boats between 10-15 metres in length and carrying a small fleet have appeared to have travelled from Vietnam with little to no GPS on board, allowing it to move undetected through the waters of Palau, Federated States of Micronesia, Papua New Guinea, Solomon Islands, Vanuatu, and New Caledonia.[195]

As challenging as this dilemma can be for the Pacific, multi-agency collaboration has proven effective, with swift eradication of sightings in the Solomons ending in harsh deterrent

[192] PIFS, The Pacific Security Outlook Report, 2022-2023.
[193] United Nations Office on Drugs and Crime, Transnational Organized Crime in the Pacific, 2016.
[194] Song, A.M., et al, *the Asia Pacific?* 2019.
[195] Ibid. See also ARC Centre of Excellence for Coral Reef Studies, Call for cooperation as 'blue boats' rob

methods.[196]These types of operations are successful upon timely rely of information to the proper authority's and communication channel is open for search teams to be deployed.

The restricted capacity to enforce maritime boundaries poses substantial economic challenges for Pacific Island nations. Fisheries represent a fundamental pillar of income and food security for a considerable portion of these countries. When IUU fishing operations continue unhindered due to enforcement constraints, they can deplete fish populations, damage marine ecosystems, and rob local communities of their means of subsistence.

The availability of formalized maritime boundaries datasets in FFA's VMS discussed above has greatly assisted the team to confidently apprehend offenders and impede such operations.[197]However, vessels are still invading despite clear boundary definitions. These maybe be subject to geopolitical and the imbalance of power that still exists post-colonial.[198]

Greenpeace has written strongly about neocolonialism in the Pacific and the power play from developed countries in existence until today, overlooking boundaries and conducting faults that disregard environmental issues and the effects on SIDS.[199]Some articles have highlighted the renewed interest from China and the United States in PIF developments and raises the questions if the Pacific is yet another playing field for their hidden agendas.[200]

Timely reminder and recommendations for increased regional cooperation has already been developed through the Boe Declaration for improved security.[201] The Niue Treaty and the new mandate for FFA to patrol inshore areas is also likely to address fishing crimes in Pacific coastal zones.

withdrawing from the treaty unless: (a) the existence of those circumstances constituted an essential basis of the consent of the parties to be bound by the treaty; and (b) the effect of the change is radically to transform the extent of obligations still to be performed under the treaty.

2. A fundamental change of circumstances may not be invoked as a ground for terminating or withdrawing from a treaty:

(a) if the treaty establishes a boundary

(b) if the fundamental change is the result of a breach by the party invoking it either of an obligation under the treaty or of any other international obligation owed to any other party to the treaty.

The substantial change must have a considerable impact on the fulfillment of existing obligations. Moreover, treaties establishing boundaries are not subject to termination by virtue of a change of circumstance because of its exclusion in paragraph 2(a) of Article 62.[233] However, as stated on the Report of the International Law Commission by the co-chairs of the ILC's Study Group, maritime boundaries enjoy the same regime of stability as any other boundaries.[234] The international jurisprudence is clear in this respect and that is, a bilateral maritime boundary treaty can generally be presumed to be permanent.[235]

The 2021 Pacific Islands Forum (PIF) Declaration Contribution is a significant document that marked a crucial moment in the ongoing cooperation and development efforts within the Pacific. Remarkably, it marked an era of change in the international law making and the

Section B: Overview of the opportunities that Pacific Island Countries in the Maritime Boundaries management.

Subsection B.1: Sovereignty

Globally, the governance of sovereign rights is shaped by a network of laws that delineate the rights and responsibilities of nations.[236] Concurrently, on a domestic level, individual countries create their own sets of laws and policies to administer and regulate resources within their specific geographic boundaries or jurisdiction. The recognition of permanent sovereignty over natural resources occurred in the mid-20th century and was adopted as an UN-GA resolution 1803 (XVII) titled *"Permanent sovereignty over natural resources"* in 1962.[237]

The resolution 1803 (XVII) acknowledged the right of sovereign nations to exercise full control over their natural resources and emphasized that the use and disposal of these resources should be in the best interests of the people of the sovereign state. [238]This resolution culminated from the United Nations Commission on Permanent Sovereignty over Natural Resources under resolution 1314 (XIII) of 12 December 1958.[239]

The first paragraph of the resolution 1803 (XVII) states the task of the Commission which is:

resources as a basic constituent of the right to self-determination, with recommendations, where necessary, for its strengthening, and decided further that, in the conduct of the full survey of the status of the permanent sovereignty of peoples and nations over their natural wealth and resources, due regard should be paid to the rights and duties of States under international law and to the importance of encouraging international cooperation in the

240

As the examination of States sovereignty gained importance and expanded into the maritime realm, so too the equitable allocation of resources.[241] One of the notable regimes of UNCLOS

236

lies in Article 56 in delineating the rights, jurisdiction, and responsibilities of the coastal state within the EEZ. It states:

1. In the exclusive economic zone, the coastal State has:

(a) sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds;

(b) jurisdiction as provided for in the relevant provisions of this Convention with regard to:

(i) the establishment and use of artificial islands, installations and structures;

(ii) marine scientific research;

(iii) the protection and preservation of the marine environment;

(c) other rights and duties provided for in this Convention.

2. In exercising its rights and performing its duties under this Convention in the exclusive economic zone, the coastal State shall have due regard to the rights and duties of other States and shall act in a manner compatible with the provisions of this Convention.

3. The rights set out in this article w

In hindsight, the Pacific way of living have valued their ocean resources, and the ocean offers significant socioeconomic and cultural values to Pacific people. Having the entitlement under UNCLOS as a signatory LOS, can result in more resources allocated to economic opportunities.

Lots of rooms to write on food security issues, national security, trade and port control.[252] *Part 2 will have marine protection = MPAs and MSP, hence its not in here. Also, dependent on total page number.*

[252] Ya Qin, J., Reforming WTO Discipline on Export Duties: Sovereignty over Natural Resources, Economic Development and Environmental Protection, 2012.

Subsection B.2: Increase regional cooperation.

The Pacific Island States, dispersed across an extensive oceanic territory, encounter distinct challenges and susceptibilities when it comes to overseeing their marine assets. The first regional body was formed under the *Agreement establishing the South Pacific Commission in 1947* during the South Seas Conference in Canberra.[253] The objective was to initiate an advisory forum in the Pacific that would bring stability at the end of World War II to dependent territories governed by Government of Australia, New Zealand, United States of America, Northern Ireland, Kingdom of NeJE* nQ EMCpG[( )] TJETQq1 0 0 1 72 613.78 Tm0 m0 g0 G[(disperse)-2i

The PIF, consisting solely of Pacific leaders, is now the most influential political and economic authority in the region with eighteen members.[264]Through the PIF Leaders, the CROP was formed with the aim of enhancing cooperation amongst the regional intergovernmental organisations in the Pacific.[265] Based on the member-owned criteria these intergovernmental organizations are an alliance of specialised agencies with regional approach on addressing the shared challenges and embarking on the regionalism strategy.[266]

Three and a half decades after its formation, the CROPS have worked together in establishing a rigid body aiming for a more cohesive and efficient approach to addressing common issues and promoting regional progress.[267] The figure below depicts the interrelated work of the CROP and the PIF leaders.

Figure 7: Workflow within the PIFS and CROP Source: PIFS

[264] Members states includes Australia, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Kiribati, Nauru, New Caledonia, New Zealand, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu. https://www.forumsec.org/who-we-arepacific-islands-forum/

[265] CROP Charter, 2018 – Ibid. Current CROP list consists of Pacific Islands Forum Secretariat (PIFS), Forum Fisheries Agency (FFA), Pacific Islands Development Programme (PIDP), Secretariat of the Pacific Regional Environment Programme (SPREP), South Pacific Tourism Organisation (SPTO), University of the South Pacific (USP), Pacific Power Association (PPA), Pacific Aviation Safety Office (PASO) & Pacific Community (SPC). https://www.spc.int/crop-family

[266] Ibid.

[267] PIFS, Council of Regional Organisations of the Pacific (CROP) Strategic Work Agenda, 2021

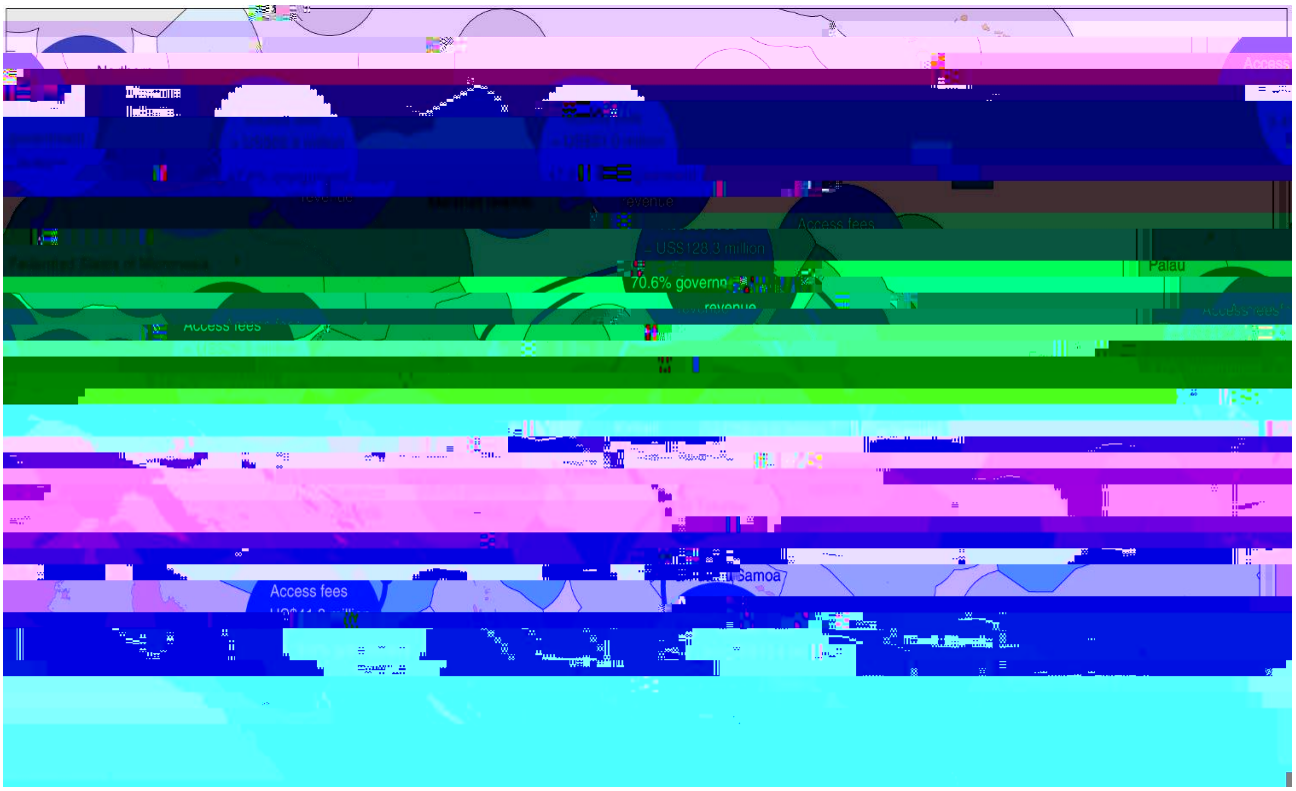


Figure 8: Average tuna-fishing access fees for 2015 -

Source: FFA[273]

This essay notes that the PICTs are quite fortunate for the vision of the PIF leaders in moving forward the region's agenda as a group rather than individual State efforts. The regionalism spirit has been mentioned in scholars[274] Thus, regional collaboration in the Pacific region opens a multitude of prospects for the efficient administration of maritime boundaries. Furthermore, the ethos and work culture of these regional organizations still embody the "Pacific Way," as the PIF leaders envisioned.

[273] Economic and Development Indicators and Statistics: Tuna Fisheries of the Western and Central Pacific Ocean (Pacific Islands Forum Fisheries Agency, 2017).
[274] Above n 272, p 457 – 460

Part 2: Marine Spatial Planning (MSP) in the Pacific A Way Forward

Part 2 will look at the overview of marine spatial planning (MSP) and how it has developed in the Pacific. This part will also take a deep dive into the role that marine spatial planning has in promoting sustainable development in the Pacific through locally ecosystem-based management systems. In addition, this part will look at how MSP will be the next actions for PICs to take on board after delimiting their maritime boundaries and the benefits of that will also be discussed. This part will also talk about MSP as a tool for PICs to use during maritime boundaries delimitations as it can be an effective and inclusive strategy and first step towards boundary negotiations through fostering collaboration between States.

Chapter 3: Marine Spatial Planning

Section A: Overview of MSP

Subsection A.1: MSP - Pacific Context

MSP in the Pacific region has been characterized by its gradual evolution, shaped by both traditional indigenous practices and modern conservation efforts. Traditional approaches bordering on MSP concept have existed since pre-colonial times, in the form of no-take areas set aside to prohibit fishing and other activities shown during a significant event.[275]One of notable example is the designation of certain areas, known as "tabu" sites, for a specific duration following the passing of a chief.[276]

Apart from cultural beliefs and values, customary marine tenure (CMT) systems as such, have been operational for many years in most PICs, with ownership rights controlled by social groups in villages.[277] As an extension from land tenure systems, these rights have extended into nearshore areas where traditional management methods have contributed to the welfare of both human societies and the marine ecosystems.[278]

These activities have been more of a social and cultural driven by the indigenous communities.[279]

in this fast-paced world where space is highly contested even now reaching outwards in the ocean areas.[289] MSP work has been fragmented and has been delivered as a form of tools to address the complex and interrelated challenges faced by Pacific nations.[290]

Investments into MSP in the region started with the Marine and Coastal Biodiversity Management in Pacific Island Countries (MACBIO) project.[291] This was a joint effort between the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Secretariat of the Pacific Regional Environment Program (SPREP) and the International Union for Conservation of Nature (IUCN).[292]

The MACBIO project idealized MSP around the biodiversity conservation in marine and coastal areas. Piloted for Vanuatu, Solomon Islands, Fiji, Tonga, and Kiribati, it aimed to establish these five countries with the necessary tools and information to make better decisions regarding the use and preservation of their marine ecosystems.[293]

Bearing in mind that most Pacific States were amongst the earliest to ratify UNCLOS, logically it would seem reasonable that conservation and protection of the ocean resources would naturally follow. Not until overfishing and IUU activities came into the picture did marine conservation efforts emerged during the early 2000's in the Pacific where land-based mapping was mainly dominate.[294] The need to achieve their CBD national targets prompted these pilot States to embark on a journey to strategize the utilization of their marine resources with the MACBIO project assistance.[295]

Essentially the MACBIO project supported countries in baseline data gathering and analysis for MSP product application national sustainable development planning for their oceans.[296] Due to this successful collaboration, several milestones and regional firsts were developed channelling their national MSP work into:

National MSP Legislation

[289] Gassner, P., et al, Marine Atlas, Maximising Benefits for Fiji, 2019.
[290] Marine and Coastal Biodiversity Management in Pacific Island Countries (MACBIO), Valuing and conserving the benefits of marine biodiversity in the South Pacific, 2018.
[291] Marine and Coastal Biodiversity Management in Pacific Island Countries (MACBIO), 2018.
[292] MSPglobal 2021 https://www.mspglobal2030.org/msp-roadmap/msp-around-the-world/oceania/vanuatu/
[293] Khaled bin Sultan Living Oceans Foundation, Marine Spatial Planning in the Pacific, https://www.livingoceansfoundation.org/science/scientific-collaboration/marine-spatial-planning-in-the-south-pacific/ 2023.
[294]

National Ocean Policies/Ocean Management Plan

Marine Atlas

Regional Toolkit

The table below summarizes the activities undertaken by MACBIO.

Country	**National Target Achieved**
Vanuatu	National Ocean Policy National Ocean Atlas
Tonga	700,000 sq km of the EEZ Tonga Ocean Management Plan National Ocean Atlas
Fiji	National Ocean Policy
Kiribati	Ocean Atlas
Solomon Islands	National Ocean Policy 2018 National Ocean Atlas

Table 4: List of MACBIO project countries and their outcomes.

Source: MACBIO & SPC

Other Pacific States undertook sanctioning of large ocean areas within their EEZ as MPAs. The Phoenix Island Protected Area (PIPA) establishment in 2006 as a remedy for lost revenues incurred from fishing licenses.[297] Palau, an archipelago in the western Pacific established the *Palau National Marine Sanctuary (PNMS)* in 2015.[298] The PNMS Act was implemented by 2020 with

Subsection A.2: MSP - International Context

The practical MSP concept materialized in the zoning of the *Australian Great Barrier Reef Marine Park.*[306] Now MSP approaches are moving towards areas beyond national jurisdiction (ABNJ) as evident in the BBNJ treaty in the form of MPAs.[307]

The Intergovernmental Oceanographic Commission under the United Nations Educational, Scientific and Cultural Organization (IOC-UNESCO) conducted the initial MSP international workshop in 2006. Since then, it has taken the lead globally in the promotion of *integrated, adaptive, strategic and participatory concepts worldwid* A Step-by-Step Approach toward Ecosystem-based Management [308] This acts as a guide for professionals responsible for the planning and management of marine areas and their resources.

By 2017, the (MSProadmap) was adopted with support from the European Commission's Directorate-General for Maritime Affairs and Fisheries (DG MARE). [309]The objective is to maximize the inclusion of maritime areas within national jurisdiction by 2030. The implementation was accomplished together with the MSPglobal Initiative and co-financed by the EU to define priority areas and take the lead in cooperation. [310] By the time of its implementation from 2018 to 2021, twenty countries have developed and approved national MSP plans. [311]As stated in the MSPRoadmap, many examples came from the PSIDS. It emphasizes on the importance of national experts and empowers local knowledge as no one will do it better than them.[312]

Several literature pertaining to MSP has been written for the European region as conflict resolution and transboundary resource protection mechanisms. MSP represents a departure from traditional sectoral management approaches, emphasizing a full circle, ecosystem-based methodology.[313]

[306] Ibid.
[307] Ibid. See also: Zaucha, J., & Jay, S., The extension of marine spatial planning to the management of the world ocean, especially areas beyond national jurisdiction, 2022.
[308] Ehler, C., Marine Spatial Planning: A Step-by-Step Approach Toward Ecosystem-Based Managem methodology.u(67.840ei TJE

Guiding Points for MSP under UNCLOS

In going back to UNCLOS, it does not offer a precise interpretation of MSP, as MSP is a relatively contemporary concept that has developed gradually. Nonetheless, UNCLOS does include provisions and principles that bear relevance to the concept and application of MSP through the promotion of multilateral environmental agreements. [314]

Section B: MSP as Post Boundary Activities for PSIDS

Subsection B.1: Implementing MSP in Post-Boundary Scenarios

Embracing a regionalist perspective, PIF leaders are dedicated to nurturing a common regional identity and strengthening a unified stance through the embodiment of the "Blue Pacific" concept.[315] The forty-ninth PIF leaders meeting in 2018 addressed a range of regional issues and cooperation efforts among Pacific Island nations. Specific themes pointed towards prioritizing the Ocean.[316]Leaders recognized the pressing need and significance of safeguarding the maritime boundaries within the region as a crucial factor in the development and security of the Blue Pacific as a Continent.[317]

In essence, the Blue Pacific serves as the storyline that breathes vitality into Pacific regionalism, and the formulation of the 2050 Strategy for the Blue Pacific Continent encapsulates the essential elements of this narrative.[318] This has seen a grown intere

multitudes and various forms of policies that only work in one dimension and does not capture the entire use and users of the ocean.[322] This has often led to one-sided agreements and fragmented activities and this research highlights are the contributing factor to continual loss of the Pacific's Blue Pacific resources.

Amidst these challenges integrated ocean management approaches has emerged as a strategic and holistic framework.[323] As policies take shape, the narrative shifts to the dynamic realm of stakeholder engagement and collaboration. The foundation has been laid when the MACBIO assisted the five pilot countries in 2018 and the *Regional Peer-to-Peer Learning Workshop on Marine Spatial Planning* in the Pacific. MSP, as a collaborative framework, necessitates the active participation of governments, industries, and local communities.[324]

Relationship between MSP and Maritime Boundaries

The RMBP designs the value of champions. Frost et al outlined the importance of those on the ground in-country teams with political connections and those go beyond just their technical capacity to complete boundaries.[325]Building on from the boundaries work with the same set of champions or country teams, MSP and its national legal framework can be harnessed properly.

In this context, MSP concepts and areas of work is not entirely new and with the Pacific States that have conducted their MSP work, the same set of professionals or people are involved. Point of contacts that have worked on countries maritime boundaries set up are also sensitizing MSP procedures in their national ocean policy formulations. The success of post-boundary MSP relies heavily on the collaboration of various stakeholders, including governments, industries, and local communities which has been the practise in the Pacific.

Additionally, it explores the dynamics of international collaboration, highlighting the significance of diplomatic efforts and cross-border cooperation in implementing MSP effectively in post-boundary scenarios. The active involvement of stakeholders to create a sense of shared responsibility.

[322] Pratt and Govan - Ibid
[323] MACBIO, Valuing and conserving the benefits of marine biodiversity in the South Pacific - Ibid
[324] Flannery, W., Clarke, J., & Mcteer, B., Politics and Power in Marine Spatial Planning, 2019.
[325] Redrawing - Ibid

Subsection B.2: MSP as a Tool for Adaptive Governance

Facilitation of Economic Activities and Strengthening of Maritime Security Through MSP Integration

For decades, humans have been extracting from the ocean without duly recognizing the consequential impacts.[330] Contrary to popular beliefs, the ocean ecosystem has changed and will continue as pressures and environmental uncertainties escalate globally.[331]Addressing the diverse array of human activities in the oceans, along with their accompanying impacts, calls for coordinated management efforts across local, national, regional, and international scales.[332] With time, MSP has evolved and now stands at the forefront of existing efforts to address the

Mitigating Cross-Border Environmental Impact

Figure 6:

Source: Jane Thomas, Integration and Application Network (ian.umces.edu/media-library)

Chapter 4: Potential Role of MSP in Maritime Boundaries Delimitation

Section A: Utilizing MSP as an alternative to delimitation

Subsection A.1: Blended MSP Approach – Provisional Arrangement

The Pacific region has significantly progressed with maritime boundary cooperation when compared to neighbouring Southeast Asia region.[335] Of the forty-eight overlapping boundary claims, thirteen remains. While the PIF leaders have demonstrated political support and communicated a regional commitment to an improved maritime delimitation regime, it is evident that challenge

MSP is acknowledged as a valuable tool for enhancing collaboration across borders and promoting better ocean governance, aiming to prevent various conflicts. [338]

Realizing practical and existing challenges stemming from the unsettled boundary disputes is essential to stimulate motivation of the countries to beef up negotiation efforts aiming for the peaceful settlements with counterclaimants.[339]

This necessitates innovative and collaborative approaches to boundary management through co-management using MSP during maritime boundaries negotiations as this research aims to demonstrate. This part of the research seeks to unravel the layers of MSP's potential contributions to maritime boundaries delimitation, examining how it can foster collaboration, provide decision-makers with comprehensive data for informed choices, and establish a foundation for sustainable and adaptive management of marine spaces.

Addressing legal implications and establishing cooperation agreements among neighbouring states are essential steps in creating a robust foundation for the implementation of MSP in post-boundary activities.

See the transboundary journals here.

Cross Boarder Collaboration in MSP

Subsection A.2: MSP as a Conflict Mitigation Tool in Cross-Border Settings

Examples of resolving maritime disputes through the application of MSP

One notable example can be observed in the Baltic Sea region, where multiple nations, including Sweden, Finland, and Estonia, have successfully implemented MSP to address overlapping claims and conflicts related to fisheries and shipping lanes. [340]

Through extensive stakeholder engagement and the integration of scientific data, these nations have established coordinated MSP frameworks, facilitated the sustainable use of maritime space while mitigated potential conflicts. This approach not only fosters regional cooperation but also sets a precedent for addressing complex jurisdictional issues through a comprehensive and inclusive planning process.

In the South China Sea, a region historically fraught with territorial disputes, the application of MSP has shown promise in managing conflicting maritime claims. Countries like Vietnam and the Philippines have taken steps to implement MSP as a means of promoting cooperative governance and sustainable resource management in contested waters. By engaging in multilateral discussions and incorporating MSP principles, these nations aim to balance economic interests with environmental conservation, fostering a more stable and collaborative maritime environment. The use of MSP in the South China Sea exemplifies how a forward-

Section B: Strategies for Effective Implementation of MSP in Addressing Maritime Boundary Issues in the Pacific

Subsection B.1: Regional Collaboration and Governance

economic zones (EEZs). In straightforward language, it affirms that coastal states possess sovereign rights to explore, exploit, conserve, and oversee natural resources within their EEZs. These resources encompass marine life, including fish, and hold the potential for energy and mineral exploration. Nevertheless, other states retain the right to conduct specific activities, such as navigation and overflight, in the EEZ. Furthermore, there exists a duty to collaborate in the preservation and management of shared or migratory fish stocks. The primary objective of the article is to strike a balance between the rights of coastal states and the interests of other states, ensuring the sustainable utilization of marine resources.

By adopting comprehensive and responsible maritime boundary management practices, PICs can ensure the long-term viability of these resources, after delimitation and hence can enhance promoting environmental sustainability and the well-being of their communities.

Bibliography:

National Legislations

2017 Marae Moana Act – Cook Islands

Books

Cass, D. Z., & Rubenstein, K. (2021). Traversing the Divide: honouring Deborah Cass's contributions to public and international law. Australian National University Press.

Rothwell, A. G. Oude, K. N. Scott & T. Stephens (Ed). *The Oxford handbook of the law of the sea*. (69 - 90) Oxford University Press.

Hassan, D., Kuokkanen, T & Soininen, N., eds, (20015). Transboundary Marine Spatial Planning and International Law, London: Routledge

Hilmi, N., Bambridge, T., Quinquis, B., and D'Arcy, P., (2016), Fisheries in the Pacific, *Socioeconomic significance of fisheries in the Small Island Developing States: natural heritage or commodity?* pacific-credo Publications, DOI: 10.4000/books.pacific.395

Jungblut, S., Liebich, V., & Bode-Dalby, M. (2020). YOUMARES 9 - The Oceans: Our Research, Our Future. Springer. Proceedings of the 2018 conference for
YOUng MArine RESearcher in Oldenburg, Germany

Lathrop, C. G., Roach, J. A., & Rothwell, D. (Eds.). (2019). *Baselines under the international law of the sea: reports of the International Law Association Committee on baselines under the international law of the Sea*. Brill.

Munavvar, M., (1923). Ocean States: Archipelagic Regimes in the Law of the Sea. *Publications on Ocean Development*. (10) Martinus Nijho Publishers.

Scott, K. N. (2021). Davor Vidas, David Freestone and Jane McAdam, eds., International Law and Sea Level Rise. Report of the International Law Association Committee on International Law and Sea Level Rise (Leiden/Boston: Brill, 2018), 86 pp.. Ocean Yearbook Online, 35(1), 725-730. https://doi.org/10.1163/22116001-03501037

Schofield, C., A New Frontier in the Law of the Sea? Responding to the Implications of Sea Level Rise for Baselines, Limits and Boundaries, (2021), In Barnes, R., & Long, R., *Frontiers in International Environmental Law: Oceans and Climate Challenges*. BRILL.

Schimmelfennig, Frank, and others, 'The Pacific Islands Forum', The Rise of International Parliaments: Strategic Legitimation in International Organizations, Transformations In

Governance (Oxford, 2020; online edn, Oxford Academic, 21 Jan. 2021), https://doi.org/10.1093/oso/9780198864974.003.0015, accessed 10 Dec. 2023.

Zaucha, J., & Gee, K. (Eds.). (2019). Maritime Spatial Planning. Springer International Publishing. https://doi.org/10.1007/978-3-319-98696-8

International Conventions

United Nations Convention on the Law of the Sea 1982 (UNCLOS) (adopted 10 December 1982, entered into force 16 November 1994, 1833 UNTS 3.

Montevideo Convention. (1933). *Montevideo Convention on the Rights and Duties of States.* Montevideo: Convention on Rights and Duties of States. https://www.ilsa.org/Jessup/Jessup15/Montevideo%20Convention.pdf.

Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, adopted 28 July 1994 (entered into force 28 July 1996)

Agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, signed 19th of June 2023.

United Nations Resolutions

United Nations, resolution adopted by the General Assembly on 17 November 2004, 59/24. Oceans and the Law of the sea. Fifty-ninth session. 2005.

United Nations Economic and Social Council4 GF1 12 ghts and Duties of States.

Other United Nations Documents

Executive Board of the United Nations Development Programme, the United Nations Population Fund, and the United Nations Office for Project Services, 2017, Subregional programme document for the Pacific Island Countries and Territories (2018-2022). Second regular session 5-11 September 2017, New York.

United Nations Office for Ocean Affairs and Law of the Sea, The Law of the Sea – *Baselines: An Examination of the Relevant Provisions of the United Nations Convention on the Law of the Sea*, 1989.

United Nations Conference on Trade and Development (UNCTAD) secretariat, 2017, *UNCTAD activities in support of small island developing States,* Trade and Development Board, Sixty-fourth session, Geneva, 11–22 September.

United Nations De

Journal Articles

Arsana, Andi., Rizos, Chris., & Schofield, Clive., (2023), The Application of GIS in Maritime Boundary Delimitation, A case study on the Indonesia-East Timor Maritime Boundary Delimitation.

Bateman, S., & Schofield, C. (2022). "Chapter 6 Straight Baselines in the Indo-Pacific: Legal, Technical and Political Issues in a Changing Environment". In Maritime Cooperation and Security in the Indo-Pacific Region. Leiden, The Netherlands: Brill | Nijhoff.

Hume, A., Leape, J., Oleson, K., Polk, E., Chand, K., and Dunbar, R., (2021), Towards an ocean-based large ocean states country classification, Marine Policy, Volume 134, 104766, ISSN 0308-597X, https://doi.org/10.1016/j.marpol.2021.104766.

Jan P. M. van Tatenhove (2017) Transboundary marine spatial planning: a reflexive marine governa

Magris, R., A., (2021) Effectiveness of Large-Scale Marine Protected Areas in the Atlantic Ocean for Reducing Fishing Activities. Front. Mar. Sci. 8:711011. doi: 10.3389/fmars.2021.711011

Manoa, P. E., & Veitayaki, J. (2009). Regional Ocean Governance in the Pacific Revisited. Ocean Yearbook Online, 23(1), 503-520. https://doi.org/10.1163/22116001-90000206

Moodie, J, R., & Sielker, F., (2022) Transboundary Marine Spatial Planning in European Sea Basins: Experimenting with Collaborative Planning and Governance, Planning Practice & Research, 37:3, 317-332, DOI: 10.1080/02697459.2021.2015855

Mon, S. (2022). The practical implications of unresolved maritime boundaries: special reference to the malaysian position. Journal of Territorial and Maritime Studies (JTMS), 9(1), 74-96.

Murphy, SD 2017, International Law Relating to Islands, BRILL, Boston. Available from: ProQuest Ebook Central. [25 April 2023].

Nature, (2023). Hypocrisy is threatening the future of the world's oceans, The international journal of science, Vol 621, doi: https://doi.org/10.1038/d41586-023-02746-8

Nigel Bankes (2016) The Regime for Transboundary Hydrocarbon Deposits in the Maritime Delimitation Treaties and Other Related Agreements of Arctic Coastal States, Ocean Development & International Law, 47:2, 141-164, DOI: 10.1080/00908320.2016.1159087

Platjouw, F. M. (2018). Marine Spatial Planning in the North Sea—Are National Policies and Legal Structures Compatible Enough? The Case of Norway and the Netherlands. The International Journal of Marine and Coastal Law 33, 1, 34-78, Available From: Brill https://doi.org/10.1163/15718085-12320075.

Pratt, C, and Brierley., C. (2016). *Ocean Governance and the Ocean Commissioner in the Pacific*,

Prescott, V., and Schofield, C. (2004). *The maritime political boundaries of the world*: 2nd edition. BRILL.

Rothwell, D., Elferink, A., O., Scott, K., and Stephens, T. (2016). Charting the Future for the Law of the Sea, in Donald Rothwell and others (eds), *The Oxford Handbook of the Law of the Sea* (2015; online edn, Oxford Academic, 2 June 2016), https://doi.org/10.1093/law/9780198715481.003.0039.

Sulu, Reuben J., Hampus Eriksson, Anne-Maree Schwarz, Neil L. Andrew, Grace Orirana, Meshach Sukulu, Janet Oeta, et al. *Livelihoods and fisheries governance in a contemporary pacific island setting*

Pacific Islands Forum Secretariat, (2022), 2050 Strategy for the Blue Pacific Continent,

Pacific Community, Strategic Plan 2022 – 2031, (2022), Pacific Community Cataloguing-in-publication data, ISBN: 978-982-00-1331-5.

Parliament of the Republic of the Fiji Islands, (2021), Agreement *between the Republic of Fiji and Solomon Islands Concerning their Maritime Boundary*, Written Analysis.

Parties to the Nauru Agreement, PNA. (2011). *Offshore Fisheries: Ensuring the sustainability of Pacific Tuna.* Fiji: World Wildlife Fund.

Pratt, C and Govan, H, *Framework for a Pacific Oceanscape: a catalyst for implementation of ocean policy,* 2010.

Pacific Island Leaders - *Declaration on Preserving Maritime Zones in the Face of Climate Change-related Sea-Level Rise,* 2021.

Pacific Community (SPC), *The Pacific Geospatial & Surveying Council Strategy* 2017 – 2027.

Pacific Islands Forum Secretariat, The Pacific Plan – *For Strengthening Regional Cooperation and Integration*, 2005. Pacific Plan Review (2013). Report to Pacific Leaders. Suva, Fiji.

Bilateral Agreements/Treaties

Agreement between the Government of the Republic of Kiribati and the Sovrybflot of the Union of the Soviet Socialist Republic concerning Purse Seine and Longline Fishing within the Exclusive Economic Zone of Kiribati 1985

Agreement concerning joint development of the southern part of the continental shelf adjacent to the two countries (with map, appendix, agreed minutes and exchanges of notes). Signed at Seoul on 30 January 1974.

Service Law Agreement, Forum Fisheries Agency and Pacific Community, 2020.

Government of the Federated States of Micronesia and Government of the Republic of Marshall Islands, *Treaty between the Federated States of Micronesia (FSM) and the Republic of the Marshall Islands (RMI) Concerning Maritime Boundaries and Cooperation on Related Matters*, 2006.

Government of the Cook Islands and Government of Niue, *Agreement between the Government of the Cook Islands and the Government of Niue Concerning the Delimitation of the Maritime Boundaries between the Cook Islands and Niue*, 2012.

Pacific Community, (2023), *Concept Note - Twenty Second Pacific Maritime Boundaries Working Session*, 2023.

Pacific Community, (2021), Pacific Maritime Boundaries Virtual Working Session & High-Level Dialogue, 16-17 November,

Pacific Community, Tuvalu Coastal Adaptation Project (TCAP), 2019. Recovery from Disaster Christchurch, New Zealand, May 2–6.

Rongo, T.*, Evans, J., Passfield, K., Cramp, J., Sudek, M., Tautu, B., McDonald, G., Rongo, T.C., & B. Hanchard. 2013. Cook Islands Marine Park: coral reef survey of Aitutaki, Manuae, Mitiaro, Takutea, and Atiu in the southern Cook Islands. Government of the Cook Islands. 64 p.

Richards, A., H., (1991), The FFA Member Countries' Vessel Monitoring System (FFA VMS), FFA Report 99/21.

Richards, A., (1999), Application of the FFA member countries' Fishing Vessel Monitoring System to track live reef fish transport vessels, SPC Live Reef Fish Information Bulletin #5.

Strating., R & Wallis., J. (2021). Climate change and maritime boundaries: Pacific responses and implications for Australia Regional Outlook Paper No. 66

Tavola, K., Baaro, M., Bogari, L., Pangelinan, L., Simcock, A., & Tuioti, E., 2006, *Reforming the Pacific Regional Institutional Framework.*

UNESCO-IOC/European Commission. 2021. MSPglobal International Guide on Marine/Maritime Spatial Planning. Paris, UNESCO. (IOC Manuals and Guides no 89)

Yaya, Filimoni., (2020). FFA-SPC SLA PROJECT & Maritime Boundary, Pacific Islands Regional Maritime Boundaries Project, Handover Report, Geoscience Energy and Maritime Division.

World Bank. (2021). Ocean Governance Summaries. World Bank Legal Vice Presidency. The World Bank, Washington D.C.

World Bank. (2017). The Potential of the Blue Economy. The World Bank, Washington D.C.

World Bank. (2016). Pacific Possible, Tuna Fisheries. The World Bank, Washington D.C.

World Bank, Pacific Possible: *long-term economic opportunities and challenges for Pacific Island Countries* (English). Pacific possible series Washington, D.C.: World Bank Group.

http://documents.worldbank.org/curated/en/168951503668157320/Pacific-

https://www.theguardian.com/world/2020/jun/20/cultural-tabu-how-an-ancient-ocean-custom-is-saving-fijis-reefs

Khaled bin Sultan Living Oceans Foundation, (2023), Marine Spatial Planning In The South Pacific, https://www.livingoceansfoundation.org/science/scientific-collaboration/marine-spatial-planning-in-the-south-pacific/

Kristof, N, D., (May 17, 1987). Fishing Yields Soviet a South Pacific Toehold, The New York Times, https://www.nytimes.com/1987/05/17/world/fishing-yields-soviet-a-south-pacific-toehold.html

Locally Managed Marine Area (LMMA), (2017), Network International Social Contract, lmmanetwork.org | info@lmmanetwork.org

Matsika, S, R., (2017), Sovereignty over Natural Resources, Munich, GRIN Verlag, https://www.grin.com/document/414677

Office of the Pacific Ocean Commission (OPOC). (2021). *Blue Pacific Ocean.* Office of the Pacific Ocean Commissioner. Suva: Pacific Islands Forum Secretariat (PIFs).

Ocean Law Bulletin: https://www.sas.com.fj/ocean-law-bulletins/the-importance-of-regional-cooperation-bet

Pacific Community, (SPC). (6 September 2021). *From SOPAC to SPC's Geoscience, Energy and Maritime Division: The Pacific Community at 75*, https://www.spc.int/updates/blog/did-you-know/2022/09/from-sopac-to-spcs-geoscience-

United Nations Treaty Section, (UNTS), Treaty Collections, 2023. https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=_en

United Nations Oceans & Law of the Sea (UN-