DEVELOPING A NEO-REGIONAL TRANSBOUNDARY MARINE PROTECTION POLICY FRAMEWORK BETWEEN THE NAVIES OF SOUTH AFRICA, NAMIBIA, AND MOZAMBIQUE

by

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Dissertation presented for the degree

Doctor of Philosophy

in the

Faculty of Military Science

at

Stellenbosch University

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April 2022

DECLARATION

By submitting this dissertation electronically, I declare that the entirety of the work contained herein is my own original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third-party rights, and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Date: APRIL 2022

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ABSTRACT

This dissertation posits the need for the development of a neo-regional transboundary marine protection policy framework (NTMPPF) for the littoral navies of South Africa, Namibia, and Mozambique. The study seeks to analyse the marine protection policy frameworks of the aforementioned littoral navies to consider reviewing the current Southern African Development Community (SADC) Maritime Security Strategy (MSS) and to develop a marine protection policy framework within the SADC Standing Maritime Committee (SMC) context as part of the African Integrated Maritime Strategy 2050. The concept of reforming littoral conservation policy and its utility value are debated within the maritime security and constabulary roles of Regional Economic Communities such as the SADC navies. The paradoxical relationship between the marine environment and the inherent combatant nature of navies are assessed because governments and academics need to find synergy towards improved maritime and marine stability. The use of grounded theory as the selected research design allowed the researcher to synthesise theories that are founded on three key performance areas, namely governance, interoperability, and capacity building, as the cornerstones of an NTMPPF. The qualitative research conducted in this dissertation provides proof that insufficient research exists to negate the potential utility of a possible NTMPPF for SADC navies.

The research found patterns indicating the need to ensure political inclusivity, good ocean governance, effective organisational architecture, and a cross-sectoral approach in order to mitigate the perception of political and scientific ignorance towards an NTMPPF. The prominence of the South African Navy and the progress it has made towards marine protection from a policy point of view in contrast to policy constraints as experienced by Namibia and Mozambique is a regional challenge. The study found repeated proof that the SADC SMC is supportive of marine protection policy initiatives, but expect a structured and staggered approach over clear timelines. The reality of political, economic, and naval capabilities, as well as ecological differences between the three respective navies, present challenges that might compromise such a transboundary policy solution in support of a blue economy. This research therefore culminated in a proposed NTMPPF, as presented in Figure 6.4, which should address the identified gap in the transboundary marine protection policy environment of the SADC. The current political impetus between SADC SMC member states in terms of a renewed MSS approach provides a favourable platform to consider the integration of an NTMPPF. The

NTMPPF is expected to be instrumental towards improved ocean governance and repositioning SADC navies in a more supportive role in the social security programmes of each respective country and the SADC.

Key Terms: Neo-regionalism; transboundary policy agreements; maritime security; marine protection; eco-system-based management; blue economy; littoral governance; interoperability; capacity-building training; Regional Economic Communities; sustainability; Africa; South Africa; Namibia; Mozambique.

OPSOMMING

Hierdie verhandeling het gefokus op die behoefte aan die ontwikkeling van 'n neo-streeks-, transgrens- mariene beskermingsbeleidsraamwerk (NTMBBR) vir die vlootmagte van Suid-Afrika, Namibië, en Mosambiek. Die studie het ten doel om te bepaal of die laasgenoemde vlootmagte wel die bestaande Suider-Afrikaanse Ontwikkelingsgemeenskap (SAOG) Maritieme Sekuriteitstrategie 2050 moet hersien en aanpas om 'n NTMBBR te ontwikkel binne die raamwerk van die SAOG se Staande Maritieme Komitee (SMK).

Die konsep van kusbeleidshervorming en die gebruikswaarde daarvan word in terme van die rol van maritieme sekuriteit en polisiemagte van ekonomiese gemeenskapstreke soos die SAOG-vlootmagte gedebatteer.

Die paradoksale verwantskap tussen die mariene omgewing en die inherente strydende rol van vlootmagte word takseer omdat regerings en akademici sinergie moet vind ter wille van verbeterde maritieme en mariene stabiliteit.

Die gebruik van gegronde teorie as die gekose navorsingsontwerp het die navorser toegelaat om teorieë te sintetiseer wat gebaseer is op drie prestasie-areas, naamlik bestuur, interoperabiliteit, en kapasiteitsontwikkeling, as die hoekstene van 'n NTMBBR. Die kwalitatiewe navorsing wat uitgevoer is in hierdie verhandeling verskaf bewyse dat daar tot op hede nie genoeg navorsing gedoen is rakende die potensiële nut van 'n moontlike NTMBBR vir SAOG-vlootmagte nie.

Die navorsing dui aan dat daar 'n behoefte is aan politieke inklusiwiteit, goeie mariene-bestuur, doeltreffende organisatoriese argitektuur, en 'n kruis-sektorale benadering om sodoende persepsies van politieke en wetenskaplike onkunde van 'n NTMBBR die hoof te bied. Die prominensie van die Suid-Afrikaanse Vloot en die vordering wat gemaak is in terme van mariene beskermingsbeleide en die kontras wat bestaan teenoor die beleidsposisie van Namibië en Mosambiek skep streeksuitdagings. Die navorsing het herhaaldelik bevind dat die SAOG SMK ondersteunend is van mariene-beskermingsbeleidsinisiatiewe, maar 'n gestruktureerde en verstelde benadering met duidelike tydraamwerke verwag.

Die werklikheid van politieke, ekonomiese, en vlootmagvaardighede, asook ekologiese verskille tussen die drie vlootmagte, bied uitdagings wat so 'n transgrens- mariene beskermingsbeleidsraamwerk ter ondersteuning van 'n blou ekonomie kan kelder.

Hierdie navorsing het dus gekulmineer in 'n voorgestelde beleidsraamwerk, soos voorgestel in Figuur 6.4, wat die gaping in die transgrens- mariene beskermingbeleidsomgewing in die SAOG kan oplos.

Die huidige politieke dryfkrag tussen SAOG SMK-lidstate rakende 'n hernude maritieme sekuriteitstrategie-benadering verskaf 'n voordelige platform om die integrering van 'n NTMBBR te oorweeg.

Daar word verwag dat die NTMBBR instrumenteel sal wees in terme van verbeterde mariene-bestuur en herposisionering van SAOG-vlootmagte in 'n meer ondersteunde rol in die sosiale sekuriteitsprogramme van elke land, asook die SAOG.

Sleutelterme: Neo-streeks; transgrens-beleidsooreenkoms; maritieme sekuriteit; mariene beskerming; ekostelsel-gebaseerde bestuur; blou ekonomie; kusstrookbestuur; interoperabiliteit; kapasiteitsontwikkelingopleiding; ekonomiese gemeenskapstreke; volhoubaarheid; Afrika; Suid-Afrika; Namibië; Mosambiek.

ACKNOWLEDGEMENTS

I would like to take this opportunity to express my humble appreciation towards God and the following individuals for their unbelievable support in the successful completion of this unimaginable doctoral dissertation:

- To God, for showing me continued grace, and giving me the perseverance and belief to once again experience and observe our God in action.

- Melitta, my wife for her unfailing belief in me, her supportive demeanour during my spells of stress, and for reminding me that "we have to put our trust in God".

- Tian, our son, for showing continuous and sincere interest in my research.

- My parents and my sister, for their continuous prayers and support.

- My honoured supervisors and mentors, Prof. J.L. Jansen van Rensburg and Prof. K.I. Theletsane, for their belief in me and their continued, unimaginable patience, advice, insight, and academic wisdom to guide me along this journey of personal growth and humility.

- My friends and colleagues, Dr H. Brand, Commander D. Quacquarini, Lieutenant Colonel H.C. Claassen, and Mr N. Muller, for the empathy and inspiration they consistently shared with me over the last five years.

- The South African Navy command cadre and staff at work for allowing me to create an opportunity for the SADC and the African Union navies to build "naval bridges" across our oceans towards our naval vocation as custodians of the high seas and as protectors of our citizens.

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LIST OF ABBREVIATIONS

ABNJ	Area beyond national jurisdiction
ACDS	African Chiefs of Defence and Security
ACLME	Agulhas Current Large Marine Ecosystem
AIMS	Africa's Integrated Maritime Strategy
AMCEN	African Ministerial Conference on the Environment
AMD	African Maritime Domain
AMDS	African Ministers of Defence and Security
AOP	Australia's Oceans Policy
ASCLME	Agulhas and Somali Currents Large Marine Ecosystem
ASEAN	Association of Southeast Asian Nations
ASF	African Standby Force
AU	African Union
BCC	Benguela Current Commission
BCLME	Benguela Current Large Marine Ecosystem
CBD	Convention on Biological Diversity
CEMZA	Combined Exclusive Maritime Zone of Africa
COP 10	10th Meeting of the Conference of the Parties
CSIR	Council for Scientific and Industrial Research
DOD	Department of Defence
DRC	Democratic Republic of the Congo
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EEZ	Exclusive Economic Zone
EU	European Union
FRELIMO	*Frente de Libertação de Moçambique*
GDP	Gross domestic product
GEF	Global Environmental Facility
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Pollution
GI WACAF	Global Initiative for West, Central and Southern Africa
GOC	Global Ocean Commission
IBCC	Interim Benguela Current Commission
ICM	Integrated coastal management
ICOM	Integrated coastal and ocean management
ICZM	Integrated coastal zone management

IDON	Interdepartmental Directors North Sea Consultative Body
IMO	International Maritime Organization
IOM	Integrated oceans management
IOR	Indian Ocean Rim
ISDSC	Inter-State Defence and Security Committee
LME	Large Marine Ecosystem
MBP	Marine Bioregional Plan
MCDA	Multi-criteria decision aid
MDA	Maritime Domain Awareness
MDAC	Maritime Domain Awareness Centre
MDF	Mozambican Defence Force
MDG	Millennium Development Goal
MOU	Memorandum of understanding
MPA	Marine protected area
MPP	Marine protection policy
MPSO	Maritime Peace Support Operation
MSP	Marine spatial planning/plan
MSS	Maritime Security Strategy
NDF	Namibian Defence Force
Nm	Nautical mile
NTMPPF	Neo-regional transboundary marine protection policy framework
OCIMS	National Oceans and Coastal Information Management System
OPRC	International Convention on Oil Pollution Preparedness, Response and Cooperation
RACE	Rapid Appraisal of Coastal Environments
REC	Regional economic community
RENAMO	*Resistência Nacional Moçambicana*
RSA	Republic of South Africa
RSP	Regional Seas Programme
SADC	Southern African Development Community
SAN	South African Navy
SANDF	South African National Defence Force
SCLME	Somali Current Large Marine Ecosystem
SDG	Sustainable Development Goal
SEA	Strategic environmental assessment
SMC	Standing Maritime Committee
TEMM	Tripartite Environment Ministers Meeting

UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on the Law of the Sea
UNDOALOS	United Nations Division of Ocean Affairs and Law of the Sea
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
US	United States
USA	United States of America
WIO	Western Indian Ocean
ZOPACAS	Zone of Peace and Cooperation of the South Atlantic

CHAPTER 1:
INTRODUCTION TO THE RESEARCH

"It must be remembered that there is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new system. For the initiator has the enmity of all who would profit by the preservation of the old institutions and merely lukewarm defenders in those who would gain by the new ones. The hesitation of the latter arises in part from the fear of their adversaries, who have the laws on their side, and in part from the general skepticism of mankind which does not really believe in an innovation until experience proves its value. So it happens whenever his enemies have occasion to attack the innovator, they do so with the passion of partisans while the others defend him sluggishly so that the innovator and his party are alike vulnerable" (Massachusetts Institute for Technology, 2019).

1.1   INTRODUCTION AND BACKGROUND

The South African Navy (SAN), as a member of the Southern African Development Community (SADC), is increasingly seen as a key role player and leader within the Standing Maritime Committee (SMC) of the Inter-State Defence and Security Committee (ISDSC) that forms part of the SADC. The SAN, like the rest of the SADC navies, has a mandate to safeguard the sovereignty of its maritime territory, which includes its oceans and the marine resources within. The International Council for the Exploration of the Sea in Hildebrand and Schröder-Hinrichs (2014) explains "marine" as the concept that encompasses "the oceans and seas, including their flora and fauna, as well as their interaction with coastal territories". The term "maritime" according to Hildebrand and Schröder-Hinrichs (2014) refer to the "any kind of human-related activity centred around sea and ocean resources". Littoral countries, which include South Africa, Mozambique, and Namibia, are trading nations that require a navy to provide safe oceans because they have an "island economy", also known as a "blue economy", with almost all of their trade conducted via the oceans (Modise, 2019; Republic of South Africa [RSA]: Department of Government Communication and Information Systems, 2020).

Oceans as a new frontier for development and conservation play an integral and increasingly important role in the economies of the SADC and more specifically in the South African economy as there are 3 000 km of coastline that needs to be protected and that provides ports where commodities can be imported and exported. South Africa has the world's largest bulk

coal terminal port in Richards Bay, with Durban as the busiest port in Africa and the Port of Ngqura as the deepest container terminal in Africa. As both a littoral state and a sea-trading nation, South Africa is among the top 15 countries in the world that trade by sea, with more than 96% of its imports and exports that move via sea transportation (RSA: Department of Transport, 2019). South Africa therefore has geo-strategic value for its trade routes, as well as a responsibility to assist its neighbouring littoral states in supporting the Regional Economic Community (REC), namely the SADC. The South African White Paper on National Environmental Management of the Ocean describes the broad approach suggested for national and regional integration and coordination within the SADC context (Republic of South Africa: Department of Environmental Affairs, 2014).

South Africa, as a member of the SMC and ISDSC, is furthermore strategically placed to render assistance both to the South Atlantic littoral states, such as Namibia, and to those on the Indian Ocean Rim (IOR), such as Mozambique, among others. South Africa actively fulfils its role as a regional maritime custodian and SADC stakeholder through engagement with neighbouring littoral states such as Mozambique. Proof of this can be found in that the president of Mozambique approached South Africa, and specifically the SAN as well as the Defence Minister of Namibia, for assistance in safeguarding their maritime resources (Modise, 2019; RSA: Department of Government Communication and Information Systems, 2020). The Namibian and South African governments have a long-lasting relationship in terms of intergovernmental interaction and bilateral agreements. This was especially strengthened during the period when colonialism and apartheid undermined the democratic freedom of the two countries. These bilateral agreements encompass 66 different areas of mutual agreement, as well as memoranda of understanding (MOUs), and include economic, defence, and security cooperation; among others (RSA: Department of International Relations and Cooperation, 2020). The Mozambican government is equally aware of the need for regional cooperation as extremist militias are threatening its northern border and compromising the political stability and economic growth that this littoral state is in dire need of (Fabricius, 2020).

Mozambique's commitment to improved ocean governance as part of the SADC is clearly visible in its willingness to be a signatory to the Djibouti Code of Conduct, as is the case with South Africa, which is also being a signatory (International Maritime Organization [IMO]: Maritime Safety Division, 2019). The main objective of the Djibouti Code of Conduct is to minimise, among others, the amount of piracy taking place in the Western Indian Ocean (WIO). The progress in ocean governance is also due to the involvement of stakeholders such as the

IMO, the application of best practices, and the presence and maritime patrols of naval forces such as the SAN, and supported by Mozambique and Namibia.

The role of the IMO cannot be refuted, as it was the IMO that acted as the facilitator to convene the respected signatories in order to achieve improved control of maritime security threats. It is also noted that the IMO was instrumental, in conjunction with the International Petroleum Industry Environmental Conservation Association, to establish the Global Initiative for West, Central and Southern Africa (GI WACAF) as a project to enhance oil spill preparedness, response, and cooperation among the 19 member states. The main aim is to improve and strengthen the ability and capability among the 22 member states in the West, Central, and Southern African countries in accordance with the International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC) of 1990. The overall objective of the GI WACAF is "to improve and sustain the capacity of developing countries to protect their marine and coastal resources at risk from an oil pollution incident through the full implementation of the OPRC 90 Convention" (GI WACAF, 2019). Namibia, in conjunction with Angola through the Angolan Ministry of Mines and Petroleum, as well as the Namibian Ministry of Works and Transport, is actively initiating exercises in order to improve their collective preparedness for oil spills as one of the possible maritime threats. The main objectives for these exercises are to:

- test the communication systems of Angola and Namibia;
- test the systems for requesting support and mobilising the respective resources;
- test the respective national plans of Angola and Namibia in the event of a transboundary oil spill; and
- ensure capacity building of all participants relating to transboundary spill incidents (GI WACAF, 2019).

This type of transboundary and regional cooperation is representative of the willingness for cooperation that exists among SADC countries.

The regional role that South Africa plays as an ISDSC and SMC member concomitantly creates both an opportunity and a regional responsibility to assist the Namibian and Mozambican governments. The assistance referred to encompasses issues relating to the improvement of naval combat readiness and maritime interests for the common benefit of the entire SADC region. The SAN, in its capacity as a leading naval force in the region, could therefore facilitate

neo-regional transboundary policy development by providing a non-threatening focus for transboundary cooperation. South Africa as a member state shares the vision of the SMC, which is "to promote peace and prosperity in the region through maritime military co-operation" (Modise, 2019; RSA: Department of Government Communication and Information Systems, 2020). It is through a "new-thinking" based on peace and prosperity that an economic body such as the SADC is supportive of improved national and regional socio-economic stability and growth.

In the context of national and regional economic growth, it is evident that in order to protect the wealth of the Southern African coastline, SADC countries need to assist their neighbours and extend their assistance to cooperation to the navies of the African continent by means of their constabulary and diplomatic roles (Modise, 2019).

The researcher postulates that there is an increasing requirement among littoral states in the SADC region to formulate a neo-regional transboundary marine protection policy framework (NTMPPF); more specifically among the navies of the Namibian, South African, and Mozambican governments. The researcher therefore attempted to investigate the possible need for the development of an NTMPPF with specific focus on the following aspects (see Figure 1.1):

- An assessment of the current global state of **ocean governance**, in the African Union (AU), SADC, and at naval strategic and operational level, specifically with marine protection as a focal area in the three countries;
- An assessment of the integration of **interoperability** per country as a concept in the policy/naval doctrine framework during regional and multi-national exercises and operations and whether provision is made for synergy with other navies;
- The existence of and the extent to which naval marine protection policy (MPP) per country focuses on environmental **capacity building** of own forces;
- To determine to what extent correlation exists between the MPPs of the three countries; and
- The development of an NTMPPF for the South African, Namibian, and Mozambican navies that will promote and facilitate the deployment of naval forces in an environmentally sustainable manner while simultaneously protecting the regional and national marine resources entrusted to it.

In an attempt to provide greater clarity of this subject matter, the researcher followed the following structure:

Figure 1.1: Assessment of a marine protection policy (MPP) framework
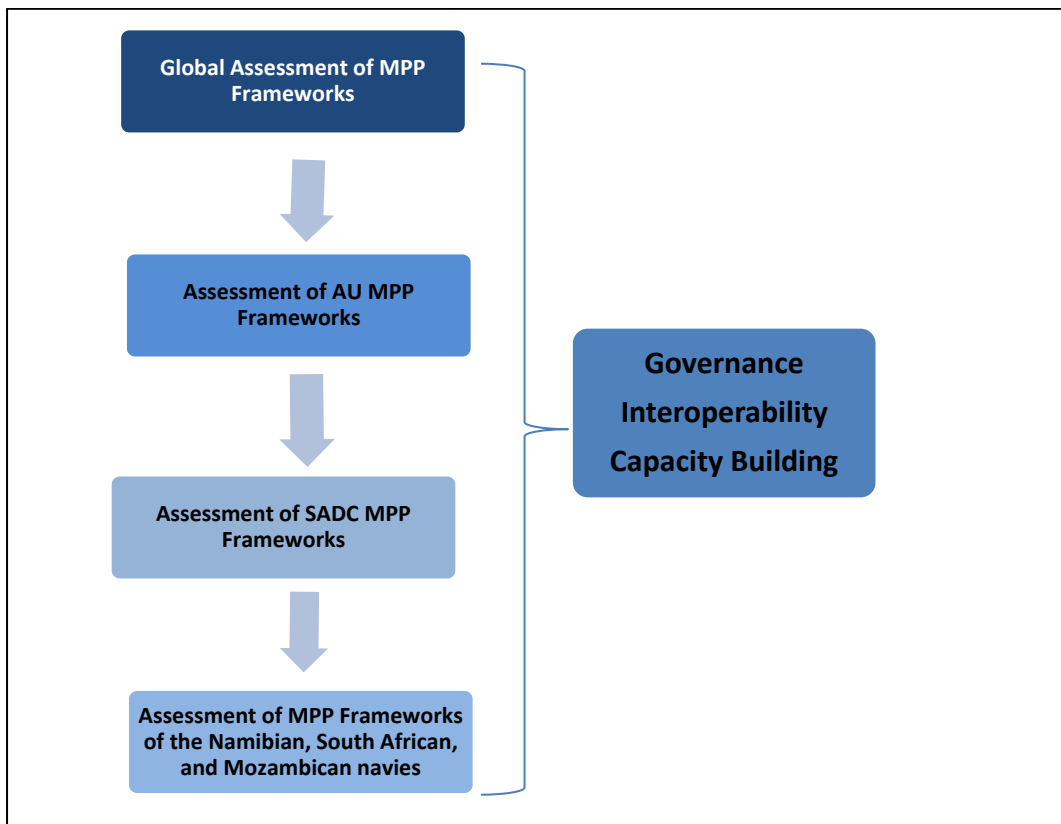
Source: Author's depiction of an MPP framework assessment (2020)

As depicted in Figure 1.1, this study provides background and a literature review starting from a global level, then to the AU, moving to the SADC, and ending with an assessment of each country. Thereafter the researcher addresses the rationale followed; provides an outline of the problem statement, aim and study objectives, research design, and methodology; and concludes with a dissertation structure for the envisaged research.

1.2 PROBLEM STATEMENT

The absence of an NTMPPF among the navies of Namibia, South Africa, and Mozambique based on governance, interoperability, and capacity building prevents regional collaboration among these navies aimed at improved marine protection and maritime domain security.

The development and implementation of MPP in the SAN have developed considerably but perhaps not to the same extent as in the Namibian and Mozambican navies. It is, however, both

a national and regional imperative for the SAN to ensure alignment with the two neighbouring SADC countries for future cooperation, interoperability, and sharing of resources. There is no literature or documentary evidence that an agreement or regional policy framework exists in support of an NTMPPF between the navies of South Africa, Namibia, and Mozambique. There are various environmental projects, commissions, and governmental support initiatives in terms of ocean governance but the challenge lies in the fact that the supporting roles of the three respective navies, as previously mentioned, are not explicitly addressed via regional or national policy frameworks. This is problematic as it exacerbates the following strategic risks:

- The risk of not executing the national and regional mandate by maintaining a naval presence in the SADC littoral maritime domain in support of maritime security and marine protection;
- The risk of compromising the regional and national levels of operational preparedness; and
- The risk of not being able to support the SADC and the AU in the strategic objectives of Africa's Integrated Maritime Strategy (AIMS) 2050 and Agenda 2063. This would also result in the failure of the three navies to support their respective governments towards a blue economy.

1.3   PURPOSE AND SIGNIFICANCE OF THE RESEARCH

The purpose of this research study is to explore the utility of the South African, Namibian, and Mozambican navies in support of improved neo-regional transboundary marine protection in their national as well as SADC regional roles as custodians of ocean sovereignty in their respective Exclusive Economic Zones (EEZs). The purpose of this dissertation is therefore to assess the MPP frameworks of the Namibian, South African, and Mozambican navies in terms of governance, interoperability, and capacity building. It is the expectation of the researcher that the identified gaps or lacunas in policy alignment will assist in the development of an improved policy framework; thereby improving governance/compliance, interoperability during regional and multi-national exercises/operations, and marine protection capacity-building opportunities.

1.4   OBJECTIVES OF THE RESEARCH

The following research objectives were identified:

1.4.1   Primary objective

To develop an NTMPPF between the South African, Namibian, and Mozambican navies based on current policy elements.

1.4.2   Secondary objective

To assess the current status quo of MPP frameworks in the Namibian, South African, and Mozambican navies.

The secondary objective is influenced by the following sub-research objectives:

- The first sub-research objective set for this study was to assess the focus of naval policy on ocean governance/compliance as provided for by national legislation and international conventions and treaties.
- The second sub-research objective focused on naval policy in terms of interoperability.
- The third sub-research objective focused on naval policy in terms of marine protection capacity building.
- The fourth sub-research objective focused on the extent to which the policy frameworks of the three navies are aligned.

1.5   RESEARCH QUESTIONS

The researcher sought to achieve the abovementioned objectives by answering the following research questions:

1.5.1   Primary research question

Does an NTMPPF exist between the navies of South Africa, Namibia, and Mozambique?

1.5.2   Secondary research questions

- What is the current status quo of MPP frameworks in the South African, Namibian, and Mozambican navies?
- To what extent is there alignment between MPP frameworks among the three navies?

1.6   RATIONALE FOR THE RESEARCH

The rationale for the research has its origin in both the environmental management sciences and public administration domain. According to the Global Ocean Commission (GOC, 2019) report, the international community has expended a great deal of diplomatic effort and political capital to establish policy commitments aimed at reversing ocean degradation. It is, however, a known fact that a gap still exists between the political will, policy documents, and the actual implementation thereof, especially within the AU and, for the purposes of this research, among the littoral states of the SADC. The littoral states of South Africa, Namibia, and Mozambique have a critical role to play in terms of the blue economy as these three states represent the southern-most trade route around Africa.

From a temporal demarcation point of view this study serves as a heuristic tool to assess both the national and regional imperatives for the Namibian, South African, and Mozambican navies, understand their operational and political backgrounds, analyse their MPP frameworks and to determine whether there is alignment within the SADC context in support of AIMS 2050 and if a transboundary NTMPPF is indeed possible.

1.7   LIMITATIONS OF THE STUDY

The most prominent limitation experienced with this research was the impact of the COVID-19 pandemic on the ability of the researcher to move across provincial boundaries for data collection. The availability of research participants during the lockdown phases of the pandemic was also a major limitation to the study. This was, however, circumvented by the use of technology to replace in-person data collection.

1.8   DELIMITATIONS OF THE STUDY

This study, as with any research project, has certain limitations and delimitations (Babbie, 2008). For the purposes of this research, this study was delimited to the three littoral states of the SADC, namely South Africa, Namibia, and Mozambique. The topic of the study within the current regional context of the SADC, with its various littoral challenges and constraints, resulted in the delimitation of the sample to a sub-sample that included only the Naval Command and Staff Council of the SAN, with only one representative from Mozambique and Namibia respectively. There are 10 navies in the SADC but it is only the Namibian and

Mozambican navies that border and share a littoral zone with South Africa, and it is for this reason that this study was delimited to focusing on these navies for the purposes of the research.

1.9   ETHICS

The researcher ensured that the ethical aspects of anonymity, confidentiality, and ambiguity were addressed by informing the respondents of all matters that might affect their honest and unbiased response (Babbie, 2008). According to Denzin and Lincoln (2000), there are specific guidelines for ensuring ethical conduct during the research process, namely informed consent, no deception, assurance of privacy and confidentiality, and accuracy. The ethical clearance (see Appendix C) approved by the Ethics Committee of Stellenbosch University, as well as the prescribed document for consent to conduct interviews (see Appendix B), were used at all times.

Permission for the sourcing of data was obtained from approved gatekeepers (see Appendix A). Participation in this study was voluntary and the participants remained anonymous. Strict confidentiality was applied to the responses provided by all the participants. A number was allocated to each research participant and this is how the data were analysed and reported. All the participants were informed that, upon completion of the dissertation, the results would be disseminated in the form of a doctoral thesis. They were informed that the collected data would be destroyed after five years.

1.10   RESEARCH DESIGN AND METHODOLOGY

In conducting a policy analysis of the MPP frameworks of the South African, Namibian, and Mozambican navies, the researcher made use of grounded theory (Markey & Tilki, 2014) research as the preferred research method. The assumptions of the critical realist show how unobservable systems can cause observable events and that the social world will be better understood if society understands the systems that create these events. The assumptions of the critical realist underlying the nature of the policies that would be analysed suggest that the researcher should adopt a post-positivist paradigm (Guba & Lincoln, 1994) and attempt to assume an objective stance in the research. Table 1.1 presents the different prerequisite components as part of the grounded theory process that is used to determine patterns during the research process.

Table 1.1: Components of grounded theory

Component	Stage	Description	Source
Openness	Throughout the study	Grounded theory methodology emphasises inductive analysis. Deduction is the usual form of analytic thinking in medical research.	Glaser and Strauss [1] pp. 2-6. Bryant and Charmaz [2] pp. 1-3, 15, 16, 43-46. Charmaz [3] pp. 4-21.
Analysing immediately	Analysis and data collection	In grounded theory, the researchers do not wait until the data are collected before commencing analysis. In a grounded theory study, analysis must commence as soon as possible, and continue in parallel with data collection, to allow theoretical sampling (see below).	Glaser and Strauss [1] pp. 101-115. Bryant and Charmaz [2] pp. 12, 13, 301. Charmaz [3] pp. 20.
Coding and comparing	Analysis	Data analysis relies on coding (a process of breaking data down into much smaller components and labelling those components) and comparison (comparing data with data, code with code, to understand and explain variation in the data). Codes are eventually combined and related to one another. They are referred to as categories or concepts.	Glaser and Strauss [1] pp. 101-115. Bryant and Charmaz [2] pp. 30, 31, 265-289. Charmaz [3] pp. 42-71.
Memo writing	Analysis	The analyst writes many memos throughout the project. Memos can be about events, cases, categories, or relationships between categories. Memos are used to stimulate and record the analyst's developing thinking (see above).	Glaser and Strauss [1] pp. 101-115. Bryant and Charmaz [2] pp. 30, 31, 265-289. Charmaz [3] pp. 42-71.
Theoretical sampling	Sampling and data collection	Theoretical sampling is central to grounded theory design. A theoretical sample is informed by coding, comparison, and memo writing. Theoretical sampling is designed to serve developing theory. Analysis raises questions, suggests relationships, highlights gaps in the existing dataset, and reveals what the researcher does not yet know, thereby building emerging theory. By carefully selecting participants and by modifying questions asked in data collection, the researcher fills gaps, clarifies uncertainties, tests their interpretations, and builds emerging theory.	Glaser and Strauss [1] pp. 101-115. Bryant and Charmaz [2] pp. 30, 31, 265-289. Charmaz [3] pp. 42-71.
Theoretical saturation	Sampling, data collection, and data analysis	Qualitative researchers seek to reach "saturation" in their studies. In a grounded theory study, theoretical saturation is sought. This is a subtly different form of saturation, in which all of the concepts are well understood and can be substantiated from the data.	Glaser and Strauss [1] pp. 101-115. Bryant and Charmaz [2] pp. 30, 31, 265-289. Charmaz [3] p42-71
Production of a substantive theory	Analysis and interpretation	The results are expressed as a substantive theory; that is, as a set of concepts that are related to one another in a cohesive whole. As in most science, this theory is considered to be fallible, dependent on context, and never completely final.	Glaser and Strauss [1] pp. 101-115. Bryant and Charmaz [2] pp. 30, 31, 265-289. Charmaz [3] pp. 42-71.

Source: Adapted from StudyLib.Net (2019)

According to Markey and Tilki (2014), StudyLib.Net (2019), and Babbie (2008), grounded theory is essentially the process whereby theories are derived from an analysis of patterns, themes, or codes found in observational data (see Table 1.1). Strauss and Corbin (in Babbie, 2008) suggest that grounded theory allows the researcher to be scientific and creative simultaneously provided that the researcher follows the following guidelines:

- Think comparatively: The researcher must ensure that no biases arise and that constant comparison of various observations or incidents is conducted.

- Obtain multiple viewpoints: It is imperative that a variety of viewpoints are obtained.

- Periodically step back: It is important to check the collected meta-data against the interpretations made.

- Maintain an attitude of scepticism: The researcher needs to be reminded that as data accumulate, that they are interpreted, and new observations need to be used to test previous interpretations.

- Follow the research procedures: Flexibility is allowed in grounded theory, but it is essential that the following three techniques are applied at all times:
  - Make comparisons;
  - Ask questions; and
  - Conduct sampling.

Systematic coding throughout the research is important as it supports and ensures the validity and reliability of the data (Babbie, 2008).

1.11 STRUCTURE OF THE DISSERTATION

The structure of this dissertation is as follows:

Chapter 1: Introduction to the Research: In this chapter, a general background was provided. This included an introduction, the research problem, and the various objectives of the research. The rationale and limitations/delimitations of the research were explained. The chapter is concluded with a conceptual and theoretical framework that underpins the research.

Chapter 2: Theoretical Review of Transboundary Marine Protection Policies (MPPs): This chapter provides an improved understanding of what gave rise for this subject matter to

be investigated and how the research problem actually presents strategic opportunities in a very volatile ocean governance framework across the AU and SADC.

Chapter 3: The Emergence of Neo-Regional Transboundary Marine Protection: Chapter 3 elucidates how global MPPs, through the use of governance and capacity building, have reinforced and facilitated a "symbiosis" between the various emerging littoral states and developing countries, and the important role that emerging countries are expected to play and maintain regarding the high seas. This chapter furthermore explains the ever-increasing important position of Africa's emerging role in advancing the securing of neo-regional integration of MPP frameworks among African states in the African Maritime Domain (AMD).

Chapter 4: The Emerging Neo-Regional Role of the Namibian, South African, and Mozambican Navies: Chapter 4 extrapolates the neo-regional contribution of SADC littoral navies such as the Namibian, South African, and Mozambican navies in the AMD and, more specifically, a possible gradual move towards transboundary MPP development aspects such as sustainable marine protection, governance of the high seas, improved interoperability, and improved cross-training and capacity-building opportunities.

Chapter 5: Research Design and Methodology: Chapter 5 describes the motivation for the research, the research methodology, the aim and objectives of the research, the study area, sources of data, data-collection techniques, data analysis, research procedure, the rigour and quality of research, as well as the ethical considerations in terms of conducting the research.

Chapter 6: Research Findings: Chapter 6 presents the research findings.

Chapter 7: Summary and Conclusion: Chapter 7 provides clarity on whether the researcher was able to find substantial proof of whether an MPP framework based on governance, interoperability, and capacity building exists in the respective SADC navies of South Africa, Namibia, and Mozambique. It also provides a suggested NTMPPF for SADC navies.

1.12   CONCLUSION

The contemporary trend at regional level among littoral states is increasingly moving towards an impetus of acknowledging the importance of protecting marine resources, the overall governance of their sovereign marine resources and the imperative of cooperation as it is now accepted that no single littoral state can address maritime security and the protection of living marine resources on its own. This study will therefore focus on the state of neo-regional

transboundary marine protection policy frameworks amongst the identified SADC navies and if there is alignment. The next chapter consists of a literature review that will attempt to provide a thorough background regarding the development of policy frameworks, the necessity of MPP, and how it has manifested across the littoral waters across the world.

CHAPTER 2:

THEORETICAL REVIEW OF TRANSBOUNDARY MARINE PROTECTION POLICIES (MPPs)

2.1 INTRODUCTION

The previous chapter provided a concise summary of the overarching setting of developing an NTMPPF for three navies of the SADC, namely Namibia, South Africa, and Mozambique. The study will attempt to explain why research is conducted on an NTMPPF and how the research problem might present potential strategic opportunities in the SADC and among the navies of Namibia, South Africa, and Mozambique as member states of the SADC. The aim of this chapter is to focus on maritime literature that address naval support in terms of marine protection policy frameworks, and provided through maritime security strategies within the SADC context.

The SAN Naval Command supported the researcher to present the SAN as a possible SADC platform to facilitate a gradual paradigm shift towards "neo-naval thinking" and therefore a "neo-regional" approach towards maritime security policies in the SADC. This paradigm shift was especially relevant among the SADC navies, namely South Africa, Mozambique, and Namibia, of which the SAN has continuously been a prominent stakeholder, facilitator, and naval leader in the SADC maritime security domain.

The geo-political and geo-strategic importance of the SADC in the context of the AU must not be underestimated as the economy of Africa and more specifically the SADC is directly impacted upon by the maritime stability and protection experienced by merchant navies that use this southern trade route. The member states (see Figure 2.1) have direct stakeholder opportunities and obligations that impact on the overall welfare and socio-economic stability of their states.

The SMC of the SADC was and still is committed to promoting a neo-regional approach towards shared naval-orientated marine protection with its neighbouring littoral states and more specifically the respective navies, as stated in the preceding chapter. This inevitably forms part of the mandate of all navies to protect and improve the maritime sovereignty of coastal states for the common benefit of the entire region.

Figure 2.1: Geographic distribution of Southern African Development Community (SADC) member states

Source: South African History Online (2020)

The SAN, in its capacity as a leading naval force in the SADC region, could facilitate the formulation of a navy-driven MPP framework by providing non-threatening impetus and support for improved transboundary cooperation (Walker, 2014). This type of policy facilitation and formulation will be important when considering the ever-increasing prevalence of marine resources being indiscriminately plundered in a national and regional context without the watchful presence of the SADC littoral navies executing their constabulary and diplomatic roles in the AMD.

2.2   LITTORAL POLICY DEVELOPMENT AMONG DEVELOPING STATES

Developing littoral states such as South Africa, Namibia, and Mozambique are increasingly placing more emphasis on the importance of their respective governments needing to draft public policy in order to deal with the complexities of and requirements for prosperity and economic growth (Fox, Schwella & Wissink, 2004). It is for this reason that the researcher postulates the importance thereof that emerging littoral states need to review their MPPs and more specifically from a military perspective in support of contemporary regulatory MPP frameworks and towards socio-economic support for their respective governments. Howlett, Ramesh and Perl (2009) furthermore suggest that policy making is about constrained entities that seek to match policy goals with policy means as a way of problem solving. A contemporary case in point is the aforementioned three littoral developing states of the SADC. The similar economic and marine resource challenges faced by South Africa, Namibia, and Mozambique provide a compelling agenda for shared regional interaction and support. It is, however, the interpretation and articulation of public policy and how it is implemented effectively and efficiently in a sustainable manner to the advantage of the citizenry from a socio-economic perspective that require more clarity.

Public policy, according to the seminal contribution of Jenkins (in Howlett *et al*., 2009), is defined as "a set of interrelated decisions taken by a political actor or a group of actors concerning the selection of goals and the means of achieving them within a specific situation where those decisions should, in principle, be within the power of those actors to achieve". This process of matching goals and means, according to Howlett *et al.* (2009), consists of two dimensions, namely a technical dimension and a political dimension. The technical dimension seeks to identify the optimal relationship between goals and tools, whereas the political dimension deals with the fact that not all role players agree on what constitutes a policy problem or an appropriate solution. Howlett *et al.* (2009) further suggest that "as countries industrialize, they tend to converge towards the same policy mix". According to this view, high levels of economic development and wealth produced similar challenges and opportunities, which were addressed similarly among respective countries, irrespective of their social or political structures. The three littoral SADC countries, namely Namibia, South Africa, and Mozambique, with their blue economies, therefore share the same characteristics of the two dimensions postulated by Howlett *et al.* (2009) – the first being the political dimension where challenges regarding policy development need to be addressed; and secondly, the optimal governmental relationship between the national/regional goals that need to be attained with the

appropriate tools. It is, however, the focus of countries on their own economies in comparison with one another and how that equates to the international trend towards improved economic development that create a need for improved sustainability.

Internationally, the Rio+20 Conference on Sustainable Development is deemed as the epicentre where many coastal countries questioned the focus of the green economy and its relevance and applicability to them. It became clear that a stronger approach in the form of policy towards a blue economy had to be researched and possibly followed (United Nations [UN], 2012; 2015a). The reoccurring prevalence of the theme "blue economy" therefore suggests and supports the notion of research studies to be conducted. The motivation rests on the fact that it influences public policy in terms of opportunities for sustainable marine protection and places an onus on the SADC, the South African National Defence Force (SANDF), and more specifically the SAN, and its two neighbouring navies to review and realign to international and regional maritime regulatory frameworks in an emerging economy.

Throughout and subsequent to the Rio+20 process, there have been various initiatives, *inter alia*, the UN Department of Economic and Social Affairs Expert Group Meeting on Oceans, Seas and Sustainable Development. Other initiatives include the Millennium Development Goals (MDGs) of the UN (MDG 7 in terms of ensuring sustainability and MDG 8 in terms of global partnership for development). The work of the GOC (2019) and the Global Partnership for Oceans and the prominence given to oceans and seas in the UN Five-Year Action Agenda 2012-2016 (UN, 2012) also contributed significantly. It is with this approach that the concern and urgency of coordinating, controlling, and protecting the marine resources around the African continent became much more apparent. According to Walker (2014), the commonality of African interests needs to be identified in order for policy frameworks to be aligned. The researcher therefore intends to explore the commonalities based on possible standing MPP frameworks that might exist between the three littoral navies identified in this dissertation.

The alignment of policies, according to Walker (2014), is directly dependent on the shared understanding of what "national interests" consist of and that they need to be the basis for all international agreements. The inference can also be made that member states of an economic region such as the SADC also need to reach a common understanding of what regional interests are being shared and how policies need to synergise in order to be supportive of such shared understandings. The alignment of policies also forms the basis from which all national strategies will be developed. A country's national interests therefore underpin all policies that

a government advocates. For littoral states, these national interests often include and may be found within the maritime EEZ, which is at various levels rich in fish, include untapped mineral resources beneath the seabed, and include various other ecological, political, and economic advantages to the respective littoral state. The varied expectation of governments on how navies need to fulfil their naval mandate in protecting the EEZ and serve their government at sea increases the need for research to be conducted on how littoral navies need to be in support of a blue economy and more specifically in the African and SADC context. This, however, can only be executed by means of promulgated government policies.

Policy is therefore the strategic framework that is used to provide a service to citizens or to achieve set goals; for example, to protect the environment (Fox *et al*., 2004). The SANDF, and by implication more specifically the SAN, has chosen to develop an environmental policy in order to prove its custodianship of the marine environment entrusted to it and to be a leading naval force (SAN, 2006; 2010). The SANDF, as well as the United States (US) DOD, furthermore agree on the importance of an environmental policy for the armed forces (RSA: DOD, 2005). The SANDF and the US DOD (although it is not a developing country like South Africa) are therefore proof of the convergence theory. This theory, according to Seeliger (in Howlett *et al*., 2009), states that "as countries industrialise, they tend to converge towards the same policy mix". Developing countries such as South Africa, Namibia, and Mozambique that share an ocean type of economy have both the opportunity and the responsibility to safeguard and enhance the marine resources that reside in their EEZs by means of ensuring improved neo-regional MPP synergy. The level of policy synergy is, however, only possible if the respective governments are committed to transparent and sound corporate governance within the framework of the AU.

2.3   NEO-REGIONAL APPROACHES TO AFRICAN MPPs

The increasing pressures and competitive behaviour of maritime industries in their pursuit of fish stocks have simultaneously resulted in extensive research and development being conducted on marine life, as well as the subsequent protection thereof by means of maritime domain awareness and maritime security being addressed. All these various types of research and security measures are, however, collected for both scientific and economic advantage. Agardy *et al*. (in Hislop, 2007) postulate that improved technological developments in the marine environment have "enabled scientists to explore and collect data from the ocean

extremes over the past few decades. The evidence gathered thus far does not augur well for the survival of numerous commercial species or particular habitat types".

It is for the protection of marine species that research needs to be considered among all stakeholders that could collectively contribute to it. In response to increased evidence, various state and regional institutions have devised management approaches to control ocean-related human activities in their marine jurisdictions with the main aim of minimising anthropogenic impacts and improving the conservation of marine living resources for the future. The management approaches set to improve global marine jurisdiction are, however, under constant threat by global maritime volatility, specifically around the African continent (Agardy *et al*., in Hislop, 2007).

Globally, criminality and threats of a maritime nature are the order of the day, and increasingly so within the African domain. It is, however, the potential for prosperity that causes African states to position themselves and become more focused on implementing marine protection strategies on continental, regional, and national levels in order to acquire the long-term gains from the oceans and seas. The broad focus as set out in AIMS 2050, as depicted in Figure 2.2, aims to address the overall concept of maritime security (Walker, 2015a) and to "improve the quality of life of African citizens through sustainable governance of Africa's maritime domain" (UN High Commissioner for Refugees, 2020). The main emphasis, as depicted in Figure 2.2, is on a cross-sectoral type of approach that will concomitantly attempt to address inter-state and inter-agency maritime security concerns and objectives. The challenge, however, is to ensure that the policy risks never outweigh the means, the ends, and the ways, and that all stakeholders are reminded that flexibility needs to be maintained in a very dynamic political, economic, and maritime environment. The aim of AIMS 2050 is to promote a synergised and sustainable strategy that will continuously improve the overall maritime security of the AMD.

Evidence of this increasing unified movement towards protecting and utilising the oceans is observed in the AU Agenda 2063 as it aims to create "a prosperous Africa based on inclusive growth and sustainable development" (Walker, 2015b). The prospects of Agenda 2063 clearly outline the importance of the continent's blue economy, and mention that the oceans economy shall be a major contributor to continental transformation and growth in the AU. The details pertaining to how the growth and transformation will be achieved have not yet been articulated, but the importance of following through on this objective through various intergovernmental

mechanisms in order to protect and promote environmentally friendly policies is clearly stated in Agenda 2063 (Walker, 2015b).

Figure 2.2: Africa's Integrated Maritime Strategy (AIMS) 2050
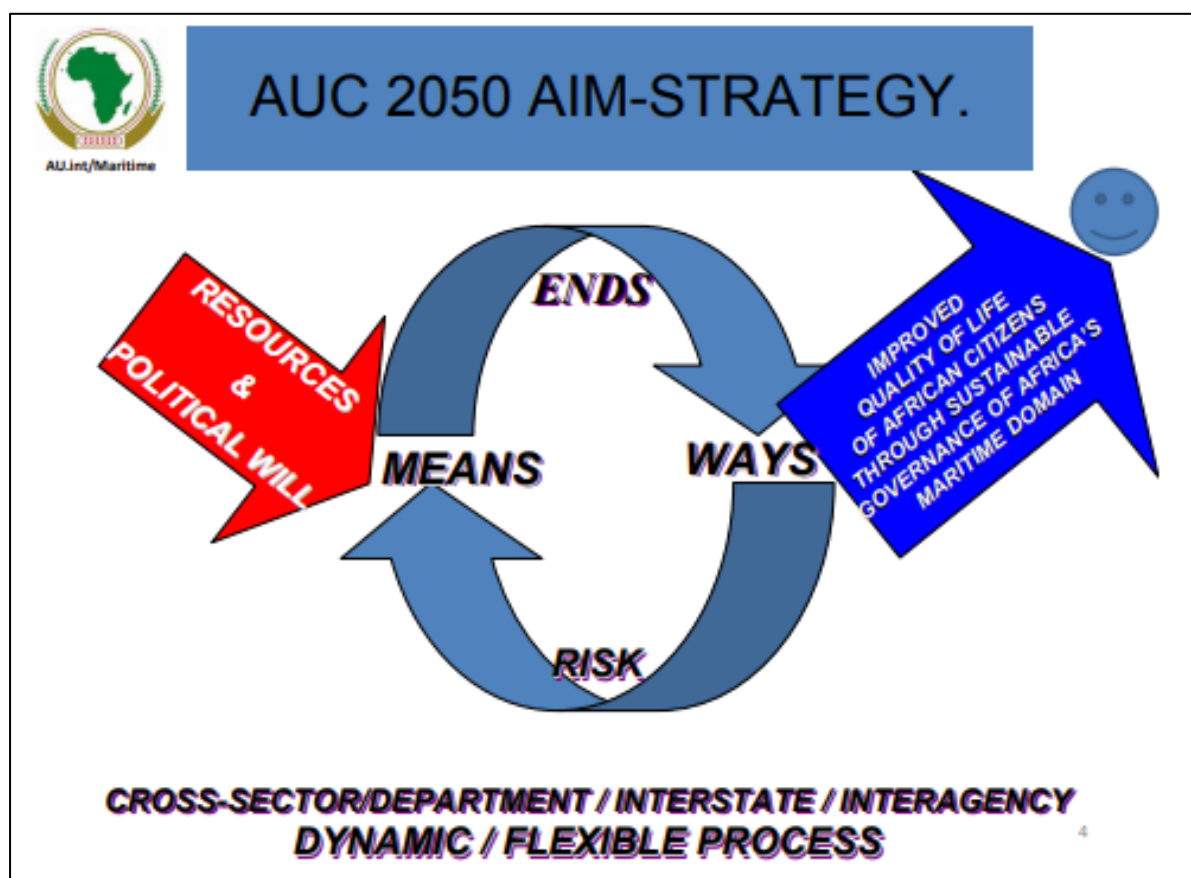
Source: UN High Commissioner for Refugees (2020)

One goal of the AU's AIMS 2050 is to encourage African states to initiate a blue economy that would be supportive of increased economic and social wealth creation through coordinated and sustainable maritime industries. The AU has also declared that 2015 to 2025 will be Africa's Decade of Seas and Oceans (Walker, 2020).

It is increasingly observed that the AU and its member states are focusing on interfacing their efforts with the increasing flood of global ocean-related activities occurring across various levels of governance. Greater support for improved continuity and momentum towards ocean governance has been particularly evident at the intergovernmental negotiations of the UN Post-2015 Agenda. Here states drafted the Sustainable Development Goals (SDGs) to be attained after the transition from the MDGs. SDG 14 is key as it encourages countries to conserve and in a sustainable manner use the oceans, seas, and marine resources for sustainable development (Walker, 2015b; 2020).

As part of AIMS 2050, a complete paradigm shift is required towards the protection of oceans, as well as the safety and security of seafarers. It is imperative that organisations such as the UN and AU continue to encourage member states to increase the impetus towards improving ocean governance (Walker, 2015b).

Evidence of impetus towards improved ocean governance can be observed in the AU, specifically among the island states of Mauritius and the Seychelles, which have implemented their own blue economic policies. South Africa, as a developing littoral state, through the Department of Environmental Affairs, which is the lead agency of Operation Phakisa (a government initiative that aims to unlock the economic potential of South Africa's oceans), appears to share the drive towards blue economic policies and have publicly committed itself to creating a local blue economy, thereby creating a thriving maritime industry (Walker, 2015b).

Developing countries, such as South Africa, Namibia, and Mozambique, that intend to protect their maritime sovereignty, are increasingly placing more emphasis on the importance thereof that their respective governmental departments are expected to draft public policy in order to deal with the complexities of prosperity and economic growth (Fox *et al.*, 2004). This drive of policy development in a harmonised manner among constrained entities is aligned with the research by Howlett *et al*. (2009), which matches policy goals with policy means as a way of problem solving. Van de Riet (2003) typifies the problem-solving approach by means of the typology in terms of policy-analysis steps, as depicted in Figure 2.3.

The seminal contribution of both Van de Riet (2003) and Howlett *et al*. (2009) supports the notion (as depicted in Figure 2.3) that policies are analysed from the inception of the problem being formulated through an initiation process. Prior to the design of the policy options, the relevant goals, constraints, and criteria are assessed. Once the policy options have been identified and agreed upon, the options are evaluated and compared for the optimum policy to be adopted. From a developing littoral state point of view, this is deemed as the status quo that will be followed when considering options. Kay and Alder (in Guénette & Alder, 2007) argue that integrated management need to be considered as it encompasses both social, economic and conservation.

Figure 2.3: Typology of the policy-analysis steps
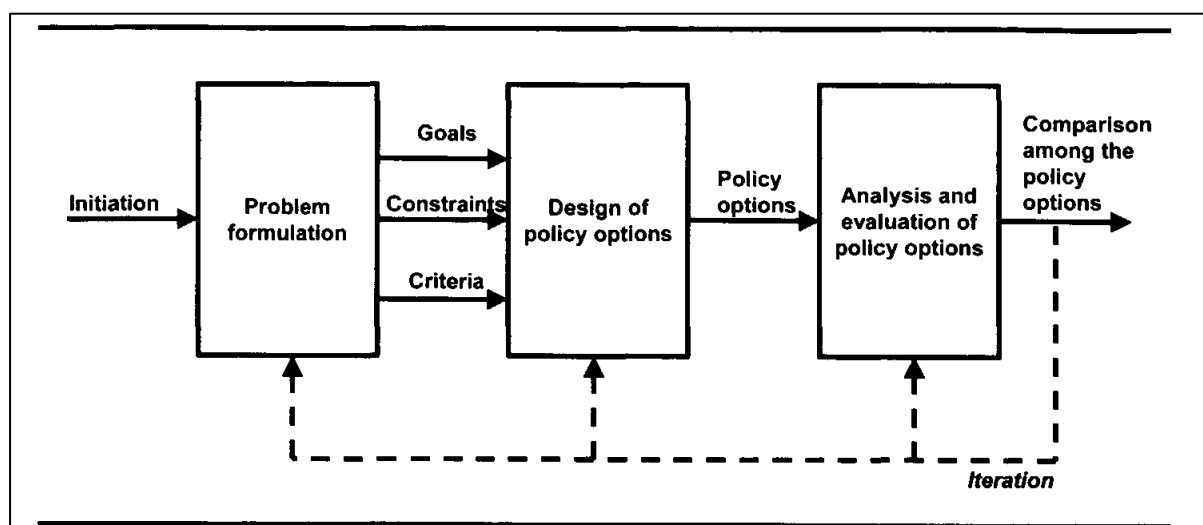
Source: Van de Riet (2003)

It is important to be reminded that public policy, according to Jenkins (in Howlett *et al.*, 2009), is defined as "a set of interrelated decisions taken by a political actor or a group of actors concerning the selection of goals". Howlett *et al.* (2009) state that "as countries industrialize, they tend to converge towards the same policy mix". A convergence where clear signs of high levels of economic development are observed among neighbouring countries indicates the opportunity for interfacing the respective public policy frameworks and governance structures. The current approach by the SADC to promote regional economic growth and development of the Southern African region suggests the type of convergence that is required between the respective public policy frameworks and the respective government structures of each littoral state as identified in this research study. It is important to note that policy issues will arise from the dynamic political, economic, social, and natural resource volatility that exists in varying ways among especially emerging countries such as South Africa, Namibia, and Mozambique.

These policy issues are further discussed by Taljaard (2008) by means of the adaptive management cycle (see Figure 2.4). This cycle depicts how identified policy concerns are assessed in order to decide on a plan and a design of how to address the management of the set outcome(s). Once the design is finalised, the plan is implemented, monitored, and evaluated. This cycle is repeated should it have to be adjusted.

Figure 2.4: Adaptive management cycle
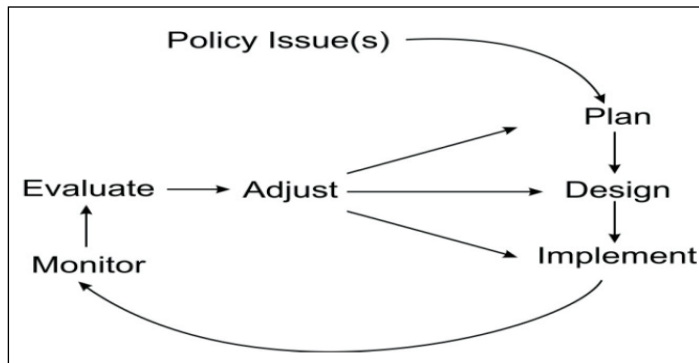
Source: Gray (in Taljaard, 2008)

The contemporary public policy cycle, as stated by Jenkins (in Howlett *et al*., 2009), is clearly depicted as a cyclical review where "new" goals are assessed and selected. The researcher therefore postulates that the emergence of new policy issues requires a cyclical approach where historical goals are reviewed, assessed, and amended if necessary, with the collaboration of all affected role players. The blue economy that is being researched and deliberated upon among SADC countries will in all likelihood require a succession of adaptive management cycles based on the constraint economies that especially Namibia, South Africa, and Mozambique experience at varying levels (SADC, 2020).

Namibia, South Africa, and Mozambique, with their previously land-based economies that are starting to focus more on "blue" ocean (UN, 2015a), therefore share the same characteristics of the two dimensions postulated by Howlett *et al*. (2009) – the first being the political dimension where challenges regarding policies need to be addressed; and the second being the optimal relationship between the national/regional goals that need to be attained with appropriate tools such as those discussed at the Rio+20 Conference on Sustainable Development (Hislop, 2007). The concept of sustainability, however, did not originate among developing countries, but were conceived by global leaders at the Rio+20 conference.

The Rio+20 Conference on Sustainable Development formed the basis where many coastal countries questioned the focus of the land-based economy and its applicability to them. It became clear that a stronger approach in the form of policy towards a blue economy had to be followed (Hislop, 2007; UN, 2015a). This blue economy is governed by conventions such as the United Nations Convention on the Law of the Sea (UNCLOS), as well as marine pollution accords.

The most definitive events in ocean governance principles and macro goals as listed by Hislop (2007) are shown in Table 2.1.

Table 2.1: Definitive events in ocean governance macro goals and innovations

Event	Year	Innovations
First World Congress on National Parks	1962	Discussion of the creation of marine parks.
UN Conference on the Human Environment	1972	Articulation of a litany of global principles and goals to guide social, economic, and environmental policy development.
UNCLOS	1972	Established, *inter alia*, areas of coastal state jurisdiction and the common heritage of mankind principles and high seas freedoms.
Rio Earth Summit	1992	Convention on Biological Diversity (CBD); Agenda 21.
World Summit on Sustainable Development (Rio+10)	2002	Held to mark the 10-year anniversary of the Rio Earth Summit and to assess progress made during the intervening decade.

Source: Hislop (2007)

The events as depicted in Table 2.1 commenced with the awareness of the importance of marine parks that reached a particular milestone in 1962 with the First World Congress on National Parks (see Table 2.1). The key event that contributed to ocean governance was the UNCLOS in 1972. Throughout and subsequent to the Rio+20 process, there have been various initiatives, *inter alia*, the UN Department of Economic and Social Affairs Expert Group Meeting on Oceans, Seas and Sustainable Development. The work of the GOC (2019) and the Global Partnership for Oceans and the "prominence given to oceans and seas in the UN Five-Year Action Agenda 2012-2016" (UN, 2012) have contributed to giving oceans prominence. It is with this approach that the concern and urgency of coordinating, controlling, and protecting the marine resources around the African continent became much more apparent. According to the Institute for Security Studies (2014), the commonality of African interests needs to be identified in order for policy frameworks to be aligned.

The harmonising of policy frameworks in order to achieve accepted levels of commonality, especially in terms of MPPs, could be considered as being too idealistic. Especially from a neo-regional point of view among developing SADC countries, a situation of collective synergy on what "national marine interests" consist of, is much more complex but also of importance as it speaks to how it will be addressed by future transboundary MPP developments. This type of neo-regional policy-development approach could also form the basis from which national

marine protection strategies might originate as it has already been accepted by the majority of national stakeholders after regional synergy has been reached.

Thus far it is quite evident that maintaining maritime sovereignty within the coastal and high seas environment, which includes the protection of marine resources, has become one of the key strategic policy paradigms of the 21st century among coastal states. Lapina and Medne (2019) maintain the viewpoint that it is increasingly becoming a worldwide trend to focus more on sustainable development indicators than purely on environmental and process-orientated indicators that aim to integrate governance, ecological, and socio-economic dimensions into outcome-orientated frameworks. As sustainability is becoming a key principle for development and supporting frameworks, it is inevitable that from a blue economy baseline it is necessary to consider integrated coastal and ocean management (ICOM). The researcher posits that this is especially true for littoral states that depend to a great extent on their coastal areas and on their EEZ for the generation of wealth and economic stability. It is, however, observed that the various coastal areas vary in terms of sustainable marine resources that contribute to different priorities given to the management thereof.

2.3.1 Integration of coastal threats

Consensus is often difficult to achieve among developing countries where varied perceptions exist around a problem, especially when there is uncertainty in the scientific assumptions and outcomes that underlie the process. It is therefore a common phenomenon for tension to exist among stakeholders, although they are committed to sustainable development of the marine environment and to preventing the unnecessary deterioration of their national marine resources.

The global threat of the increasing deterioration of marine resources by pollution therefore requires continuous intervention by all affected stakeholders who seek to promote sustainable development. Jackson (2011) states that "the most widely recognised definition of marine pollution is that which was developed by the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP)". GESAMP is a UN inter-agency body, established in 1969 to advise the IMO; the Food and Agricultural Organization of the UN; the United Nations Educational, Scientific and Cultural Organization (UNESCO); the World Health Organization; the World Meteorological Organization; and the United Nations Environment Programme (UNEP).

The GESAMP's definition of marine pollution is as follows:

> Pollution means the introduction by man, directly or indirectly, of substances or energy into the marine environment (including estuaries) resulting in such deleterious effects as harm to living resources, hazards to human health, hindrance to marine activities including fishing, impairment of quality for use of seawater and reduction of amenities.

According to Jackson (2011), there are four main sources of marine pollution, namely:

- land-based sources;
- dumping;
- maritime transport; and
- offshore prospecting and mining activities.

Jackson (2011) further states that for various reasons, there is a tendency for these sources to be regulated separately – at international and national levels – through systems such as ICOM (Jackson, 2011).

An example of a coastal state that has attempted to implement the ICOM system is Tanzania, with its Marine and Coastal Environment Management Project, of which the lead agency is the National Environmental Management Council (Global Environmental Facility [GEF], 2020). The Tanzanian government's intention is to strengthen the sustainable management and use of its EEZ, territorial seas, and coastal resources; to reduce threats to its environment; and to improve its institutional arrangements (GEF, 2020). There is therefore a visible drive by the Tanzanian government, as a developing country, to protect its EEZ, and thereby complementing adjacent coastal states on the Tanzanian coastal/maritime borders.

The attention of stakeholders and policy makers has therefore shifted to the important regional role of "governance, participation, and collaborative decision making in better managing, if not solving, environmental problems" (Weinstein *et al*., 2007). The arbitration of conflict, building consensus, and compromises between parties will become the norm for sustainable coastal management, because growing demands on coastal resources can no longer be met by access to unexploited resources (Weinstein *et al*., 2007). A state of ecological equilibrium is increasingly becoming a necessity in order to promote the collective management of all marine resources, which are inexplicably linked to one another.

The US Commission on Ocean Policy (in Weinstein *et al*., 2007) proposed a balance between ecological, environmental, and social influences through an ecosystem-based approach (see Figure 2.5). The US Commission on Ocean Policy (in Weinstein *et al*., 2007) found that "ocean

policies cannot manage one activity, or part the system, without considering its connections with all the other parts". All marine resources, as ecosystems, are affected by the type of governance or management applied, the manner in which evidence is considered for the decision-making process, and how all stakeholders are capacitated by means of either education or training. Failure to manage coastal areas and oceans based on the prerequisites required for each respective ecosystem will not only lead to the demise and collapse of the marine resource but will also result in economic tension for the affected littoral states. It stands to reason that the more inclusive management and governance approaches become, the more positive the result will be for these marine resources.

Figure 2.5: Ecosystem-based management
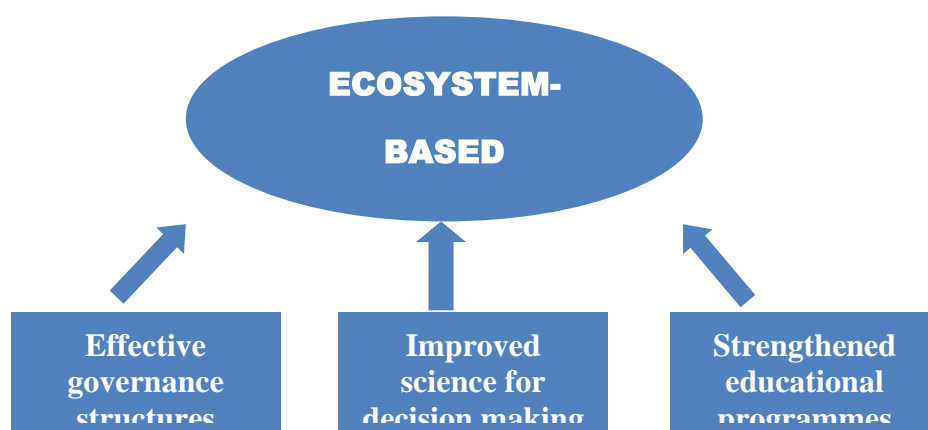
Source: Weinstein *et al*. (2007)

It is furthermore argued that participatory approaches as an effective decision-making process are increasingly being advocated in order to address the more complex type of environment and especially global and regional sustainable development issues. The inclusion of participation as an element of the decision-making process, as set out in Principle 10 of the 1992 Rio Declaration, is clearly visible in the European Union (EU). The EU has recognised participation as a central element of "general governance orientation, as illustrated by the White Paper on Governance in which participation appears as one of the five principles of good governance, together with openness, accountability, effectiveness and coherence" (Van den Hove, 2006; Velasquez & Hester, 2013; UNEP, 2021).

Van den Hove (2006) supported by Velasquez & Hester (2013) postulates that it is important to consider the relationship between multi-criteria decision aids (MCDAs) and participatory processes. Velasquez & Hester (2013) furthermore found that MCDAs are often advocated for complex environmental issues on the grounds that they do not assume commensurability of

different dimensions of value. "As such they can be used as tools for organising information, framing issues, orienting analysis, understanding the structure of the problem, identifying options, making trade-offs more explicit, structuring the decision process, exploring possible compromises, or for value exploration" (Van den Hove, 2006). It was found that "MCDAs are well suited for integration in participatory processes in the design of new strategies to address environmental and sustainable development issues. To an extent, multi-criteria decision techniques allow one to take into account conflictual, multi-dimensional, incommensurable and uncertain effects of decisions" (Van den Hove, 2006).

Figure 2.6: Multi-criteria decision aids (MCDAs)
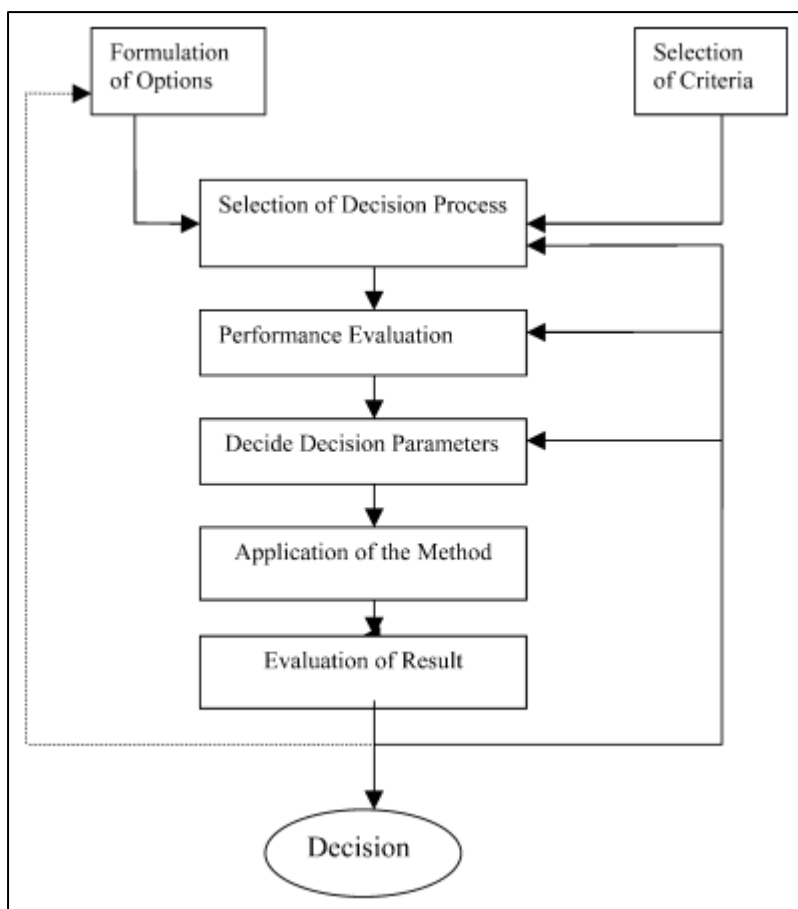
Source: Pohekar and Ramachandran (2004)

The process to be followed based on the MCDA option and as postulated by Pohekar and Ramachandran (2004) in Figure 2.6 basically involves the formulation of options and selecting the criteria to be used. Thereafter, the selection of the decision-making process is assessed by a performance evaluation phase. For the evaluation process to be effective, the relevant parameters need to be determined before they are applied. Once the result or set objective is achieved, the necessary decision can be made.

A different interpretation of MCDAs entails that some form of decision/agreement "will need to be made regarding at least the following six elements:

- Set of alternative options.

- Set of criteria.

- Scores to be attributed to each of these criteria for each of those options.

- Weights to apply to criteria.

- Ranking method to be used to compare options; and

- Role to be given to the MCDAs in the (participatory) decision process at hand" (Van den Hove, 2006).

There seems to be a consensus that a typical MCDA approach often "assumes" that there was "a consensus on the set of alternative options and the set of criteria to be taken on board in the analysis" (Van den Hove, 2006). There is, however, in practice, a great deal of arbitration and "negotiation underlying the selection of these two sets, which is more likely to be a compromise than a consensus" (Van den Hove, 2006). It is equally true for the allocation of scores. It is obvious that it is highly unlikely that all analysts, experts, or all participants would calculate the same scores for each option/criterion couple. It is therefore reasonable to accept that a consensus cannot always be reached (Van den Hove, 2006; Velasquez & Hester 2013). For this reason, it would be advisable to consider a strategic environmental assessment (SEA) as an option to aid and clarify complex environmental issues such as regional, national, or international sustainability development as what is in essence required by the navies identified for the purposes of this research study.

2.3.2   Strategic environmental assessment (SEA)

It is an increasing worldwide phenomenon to consider institutionalising an SEA, especially in the EU and the UN (Wallington, Bina & Thissen, 2007). Wallington *et al*. (2007) also argue that an SEA, according to emphasis placed by scholars, is deemed to "add value" to the existing planning and policy-making process and separate SEA processes are therefore not required.

The presence of multi-actor influences, according to Rozas-Vásquez, Fürst, Geneletti and Muñoz (2017), validates the choice of an SEA (see Figure 2.7) and encompasses the inclusion of spatial planning, ecosystems, and territorial factors in the strategic and long-term approach. The key aspects, namely ecology, economics, and socio-cultural aspects, are common

denominators in both the spatial planning and the ecological component, as the focus is on national and regional agendas. It is, however, imperative that a shared understanding needs to exist among all stakeholders in terms of the communication and roles that have been agreed upon.

Figure 2.7: SEA components
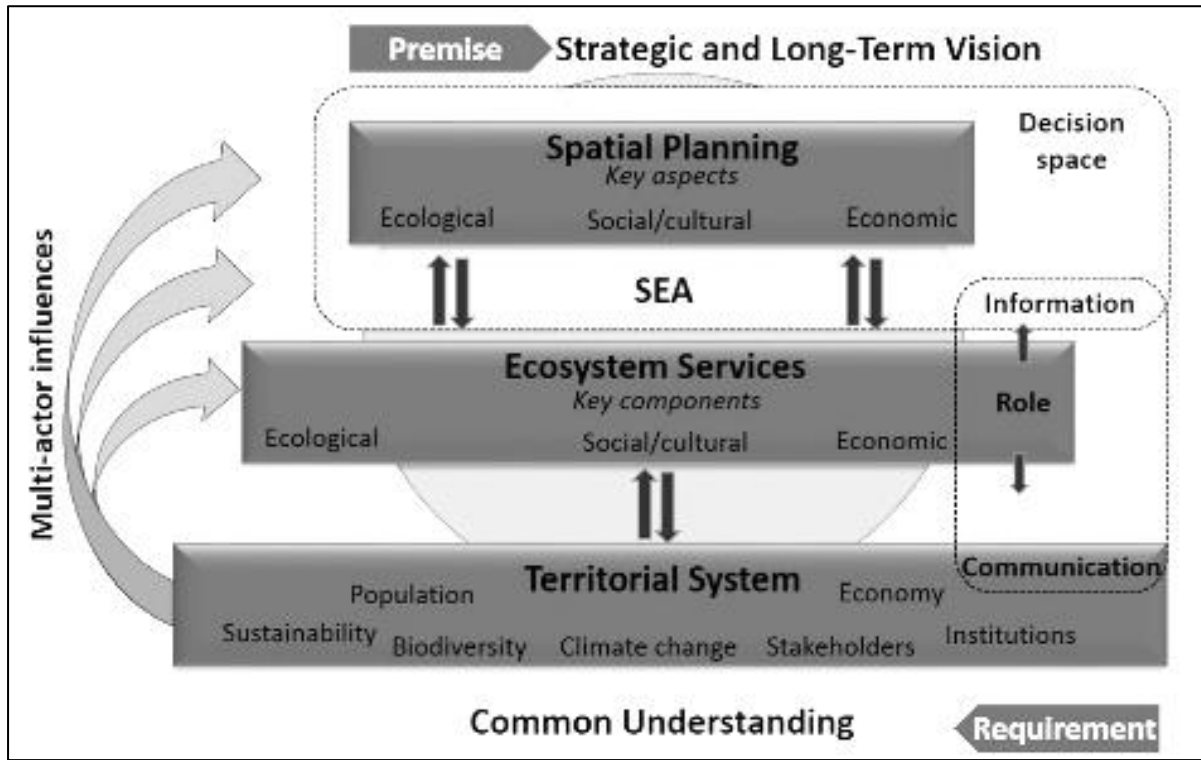
Source: Rozas-Vásquez *et al*. (2017)

The argument for an SEA is based on three pillars, which collectively represent a conceptual framework. These three pillars are as follows:

- The substantive purpose and values associated with an SEA;
- The strategies chosen to achieve that purpose; and
- The mechanisms for operationalising the SEA (Rozas-Vásquez *et al*., 2017; Wallington *et al*., 2007).

The purpose can be described as the "ultimate end of SEA, which relates to the actual implications – the intended effect – of societal decision processes" (Wallington *et al*., 2007). The utilitarian purpose of an SEA is distinct from the long-term strategy proposed to achieve it. The final element of the framework relates to the mechanisms (the methods, techniques, and tools) chosen at the operational level (Wallington *et al*., 2007; Rozas-Vásquez *et al*., 2017).

According to Sheate, Dagg, Richardson, Aschermann, Palerm and Steen (in Wallington *et al*., 2007), it was the original intention to utilise an SEA in order to "identify and communicate the potential environmental consequences of higher-order planning and policy decisions to decision-makers". From a neo-regional perspective, this would be deemed a regional imperative as a plethora of decision makers require a strategic approach due to the various national and regional interests that are at play. The added value, according to the researcher, is that an SEA allows a more scientific approach that should be supportive of the drive towards marine resources protection and improved sustainability.

As sustainability is key for the protection of all marine resources, a further possible contribution of an SEA was envisaged by means of attention paid to the environmental consequences of programmes, plans, and policies that therefore effectively contribute to the international environmental policy agenda of sustainable development, as stated by Sadler and Verheem (1996) and Partidário (in Wallington *et al*., 2007).

The SEA model assumes that the following will be in place:

- Substantive rationality in decision making;
- Procedural rationality; and
- A clearly identifiable single decision maker or decision-making body, who makes a one-time key decision (Wallington *et al*., 2007).

The decision-making process of policy implementation is therefore not solely dependent on procedural correctness but consists of the collective rationality that exists among the stakeholders, who need to agree on decisions to be made and the rationale to be followed for the agreed-upon procedure, as well as synergy among the decision-making body in terms of with whom the mandate for final decision making will rest.

It is also postulated by Wallington (in Wallington *et al*., 2007) that

> policy implementation is not merely technical rule-following; nor will conflicts necessarily be ironed out prior to 'the decision'. Rather, objectives are established and policy is more often made in the process of negotiation and compromise that characterises plan making and continues during implementation.

The intention to change the way decisions are made, which is a key characteristic of what is called "transformative" SEA strategies, has prompted scholars to seek lessons from other

policy-related disciplines to better understand alternatives to the "technical-rational" model of decision making. These theories – which variously emphasise power, negotiation, political relations, building advocacy coalitions, network structures, institutional habits, political positions, learning through communication, policy cultures, strategic decisions by policy entrepreneurs, and so on – draw attention to the structural conditions and social relations that influence decision making (Wallington *et al.*, 2007).

Transformative strategies broaden the target of SEA practice beyond the confines of programmes, plans, and policies in order to engage with relationships between SEAs, decision-making processes, and the "wider context"; notably institutional habits and values and the "environmental capacity" of the organisations and actors involved (Wallington *et al.*, 2007).

Importantly, by suggesting that the SEA community has a choice in the strategy of an SEA, stakeholders are bringing home the point that it is a choice. This choice means it is a political affirmation of particular values and rationalities and knowledge at the expense of others (Wallington *et al.*, 2007). The challenge, however, lies in the fact that the science needs to be articulated and "broken down" in order to provide politicians and decision makers with an informed understanding of what an SEA actually entails.

Therefore, as the blue economy might be interpreted as a stumbling block by littoral states that are intrinsically dependent on their marine resources and have depleted them due to their still developing economic infrastructure and underdeveloped access to regional and international markets, a plethora of choices are deemed a critical element in order for a policy process to be completed. The disparity in terms of ecological marine health, the state of economic stability, and the socio-political position that exists between the three littoral states in this study requires that an SEA needs to be communicated and fully understood by all stakeholders prior to any further steps that are envisaged towards operationalising the SEA process.

The third element of the conceptual framework, which concerns the mechanisms, such as regional mechanisms, recommended to operationalise an SEA, has also been the subject of some debate. Superficially, the debate appears polarised between advocates of "political" versus "technical" methods. Beyond this dichotomy, there has been increasing recognition, even among staunch proponents of systematically structured SEAs, of the need to "reconcile and combine structured, rigorous and rational elements with more flexible, communicative and consensus-orientated elements [depending on] the specific situation of application" (Fischer, in Wallington *et al.*, 2007). The dichotomy referred to previously entails the social versus the

scientific approach to conducting the SEA process. The needs of society are generally perceived as more important than the impact on marine living species that are affected by subsistence fishermen and -women.

It is increasingly becoming more visible to what extent coastal zones have become the major sites for extensive and diverse economic activities. These economic activities are more prevalent in developing coastal countries, which rely heavily on scarce coastal resources for their economic growth. The type of resource-use conflicts and associated environmental degradation, however, are not clearly visible in coastal states that have sparsely distributed populations, abundant natural resources, and a rural economy. It is, however, expected that this situation will gradually deteriorate with an increasing population and market forces that are expected to exert a heavier influence on resource exploitation. There is therefore a real requirement to explore alternative options for a blueprint for sustainable coastal development among policy makers and resource managers in both developed and developing nations (Thia-Eng, 1993, Maestro, Pérez-Cayeiro, Chica-Ruiz & Reyes, 2019). The researcher postulates that the diversity and plurality that exist among developing littoral states require that various options be available as no single option would necessarily be appropriate for all littoral stakeholders. From a developing littoral state point of view, the ownership displayed by the affected citizens during the communication and liaison stage is critical as they are directly affected by the proposals made.

The importance of recognising the socio-economic importance of the coastal zone was highlighted in the United Nations Conference on Environment and Development (UNCED), which also led to the integration of coastal and marine area management in Agenda 21 (UN Sustainable Development, 1992). Over recent years, more coastal states have started to increasingly focus on the planning, development, and management of their coastal zones (Thia-Eng, 1993; Maestro *et al.* 2019).

According to Thia-Eng (1993), the Association of Southeast Asian Nations (ASEAN) has since 1986 steered a regional project "to address the issues of natural resource depletion and coastal environmental degradation under the sponsorship of United States Agency for International Development". This was achieved by adopting a multi-pronged approach to the adoption of integrated management in the region by:

- creating a strong national and regional political alliance among policy makers and the public to enhance awareness of the severity of environmental degradation caused by unsustainable development in the coastal zone;
- involving the concerned planning and line agencies in the preparation of the integrated coastal zone management (ICZM) programme; and
- undertaking institutional capacity building through training and workshops to establish a core group of nationals in the region with the necessary capability to execute ICZM programmes.

The reader is reminded that the SADC region, and more specifically the littoral states, has a very important trade and marine resource role to protect and improve based on the international and regional commitments that have been agreed on. Quintessentially, these agreements originate from socio-economic pressures (nationally, regionally, and internationally), marine research that supports heightened policy commitment to a blue economy, political and economic pressures on policy and plan developers to provide proof of marine sustainability built into the planning process, as well as the undertaking to capacitate all stakeholders regarding the utility of supporting a blue economy policy framework from an integrated point of view. The primary focus, however, is on the coastal zone as this area represents the highest concentration of economic activity.

2.3.3   Integrated coastal zone management (ICZM)

The term "integrated coastal zone management" centres on the institutional arrangements that make allowance for synergy and integration among affected stakeholders and user groups with authority and interest in coastal areas and marine resources. Traditionally, institutions have managed coastal resources in terms of the sectors involved, such as fisheries, aquaculture, offshore oil and gas, ports, tourism, and conservation. This was, however, done without giving due consideration to the impacts and consequences, both positive and negative, of one sector on another. Inevitably, this type of sector-based management style resulted in wastage of scarce resources, animosity among users and/or between institutions, and ultimately a downward spiral of decreased environmental quality (Suman, 2002).

According to Cicin-Sain, Knecht, Vallega and Harakunarak (2000), ICZM is defined as

> [a] continuous and dynamic process by which decisions are taken for the sustainable use, development, and protection of coastal and marine areas and resources. ICM

> [integrated coastal management] acknowledges the interrelationships that exist among coastal and ocean uses and the environments they potentially affect, and is designed to overcome the fragmentation inherent in the sectoral management approach. ICM is multi-purpose oriented, it analyses implications of development, conflicting uses, and interrelationships between physical processes and human activities, and it promotes linkages and harmonization among sectoral coastal and ocean activities.

Cicin-Sain *et al*. (2000) argue that ICZM is required because of two main reasons, namely:

- the effects that ocean and coastal users, as well as activities further upland, can have on ocean and coastal environments; and
- the effects that ocean and coastal users can have on one another.

A central aspect of ICZM is the concept of integration. Several dimensions of integration are involved in ICZM, namely:

- inter-sectoral integration (integration among different coastal and marine sectors, such as fisheries, oil and gas development, and coastal fisheries);
- intergovernmental integration (integration among different levels of government – national, provincial, and local);
- spatial integration (integration among the land and ocean sides of the coastal zone);
- science-management integration (integration among the different disciplines important in coastal and ocean management); and
- international integration (when a nation borders enclosed or semi-enclosed seas or there are international disputes over fishing activities, transboundary pollution, establishment of maritime boundaries, passage of ships, and other issues).

The operationalisation of the ICZM programme consists of and is dependent on a series of specific policies and management actions with a wide variety of implications for the livelihood and economic activities of the concerned stakeholders. It is therefore an operational imperative that these policies and management actions need to be effectively coordinated to ensure the effectiveness of the ICZM system (Thia-Eng, 1993; Maestro *et al.* 2019).

The aspect of integration is an important element of the ICZM system, which ensures not only internal alignment and consistency between policies, actions, projects, and programmes, but also interfacing between the stages of planning and implementation. It is important to note that

integration not only provides a broader and cohesive perspective of the entire ICZM programme, but it also ensures that all resources are aligned in order to attain sustainable policy and development goals (Maestro *et al.* 2019). The researcher therefore postulates that it is imperative that the stakeholders understand the importance thereof that synergy needs to exist between the scientists and the respective government stakeholders in order for both groups to comprehend each other's viewpoints.

Policy integration plays a critical role in ensuring the following:

- Internal consistency of the ICZM programme in terms of national and local government policies and management actions;
- To maintain coordination; and
- Complementarity and rationalism between programmes and projects, as well as among concerned public agencies (Maestro *et al.* 2019).

Ultimately, the objective is to integrate ICZM programmes into national or local economic development plans. Therefore, based on the challenges brought by changes in the coastal zone, coastal policies and management strategies must respond to changes in the shortest space of time and be "consistent with national economic development goals" (Thia-Eng, 1993). For this reason, the researcher observed from online documents a definite rationale among the SMC member states within the ISDSC of the SADC to address maritime stability, security, and improved economic trade along the respective EEZs.

From a strategic perspective and considering the mentioned national economic development goals, it is imperative to acquire and maintain broad political will and sustainable commitment from the onset of any ICZM programme. It is preferable to acquire the expertise and support of an inter-agency coordinating body to implement an ICZM programme (Maestro *et al.* 2019). It is important to note that achieving integrated management along the parameters referred to above is deemed challenging when managing oceans and coasts.

Combining and harmonising the viewpoints of divergent sectoral government agencies, of different levels of government (each with their own interests, mandates, and perspectives), and of different disciplines (each with different outlooks, language, and methodologies), represent a most challenging set of tasks. To achieve integrated management, it is important to have incentives that promote continued collaboration among ICZM entities. Similarly, it is important to provide training and education programmes that emphasise the interrelationships

among coastal and ocean activities, uses, natural systems, and physical processes, and which develop the appropriate mind-sets and skills that coastal managers need in their work (Cicin-Sain *et al.*, 2000).

Thia-Eng (1993) supported by later research of Maestro *et al.*(2019) further postulates that on both a regional and national level it is ideal to have an ICZM programme operating within a closely integrated, coherent management framework in a defined geographical limit. It is within this ambit of geographical limitations that the designed policy and management actions set to address coastal development conflicts must be founded on a sound understanding of the following aspects:

- Productive capacity of the natural systems;
- The capacity of the environment;
- The political, socio-cultural, and economic conditions; and
- Present and future demands, as well as social costs involved.

Equally, governmental bodies and programmes involved in oceans and coasts tend to be organised around specific resources or problems such as maritime sovereignty, fisheries, or the mitigation of natural hazards. These bodies, however, do not align their focus with other national organisations that might be in the same particular geographical areas but involved in different sectors. The integrated approach that will complement all sectors involved required in a coastal zone is thus seriously lacking (Cicin-Sain *et al.*, 2000).

It is an accepted norm that government ICZM policies and strategies are designed and implemented systematically through a series of planning and implementation processes, which collectively form the coastal management system.

According to Thia-Eng (1993),

> [t]his system is made up of three mutually supporting dimensions, *viz*. processes, issues and actions. The three dimensions are closely intertwined and should be considered in their entirety. To ignore one may lead to the collapse of the whole management system or render it ineffective. ICZM should not be mistaken as a development programme although its ultimate objective is to allow multi-sectoral development with the least intended setbacks. It provides a planning and management framework which permits the rational utilisation of natural resources and their sustainable development.

Historical evidence has proven that the planning processes, such as the process adopted at the ASEAN ICZM, took place over a period of two to five years. The apparent reason for this extended process was partly due to lengthy technical research and gathering of information. This unduly long process caused policymakers to lose interest as well as the necessary impetus in the initial phase of the programme development. It was found that even the support of "the national coordinating and implementing agencies waned considerably" (Thia-Eng, 1993).

Based on the abovementioned information, it is imperative to limit the planning process to no more than two years. Thia-Eng (1993) supported by the research by Maestro *et al.* (2019) found through research conducted from past ICZM efforts in the United States of America (USA) and ASEAN, that existing secondary information is "sufficient to prepare a strategic management plan and specific research needs could be integrated into the plan and be undertaken as part of the management programme". It was established that a "fast-track" management planning process could be developed that modifies the techniques used for rapid rural appraisal. This management planning process, known as Rapid Appraisal of Coastal Environments (RACE), combines its techniques and procedures and complements the conventional planning process. The RACE framework (see Figure 2.8) includes secondary data analysis in relation to the planning or research objectives identified. This appraisal process commences with the identification of RACE objectives. Two activities take place during the secondary data-analysis phase. The first is the participatory process and the other is the formal survey process. Upon completion of these two processes, this type of appraisal produces a profile of the areas in terms of the unique factors of the specific coastal area and it produces a strategic management plan based on all the RACE objectives identified initially.

Figure 2.8: Framework for the application of Rapid Appraisal of Coastal Environments (RACE)
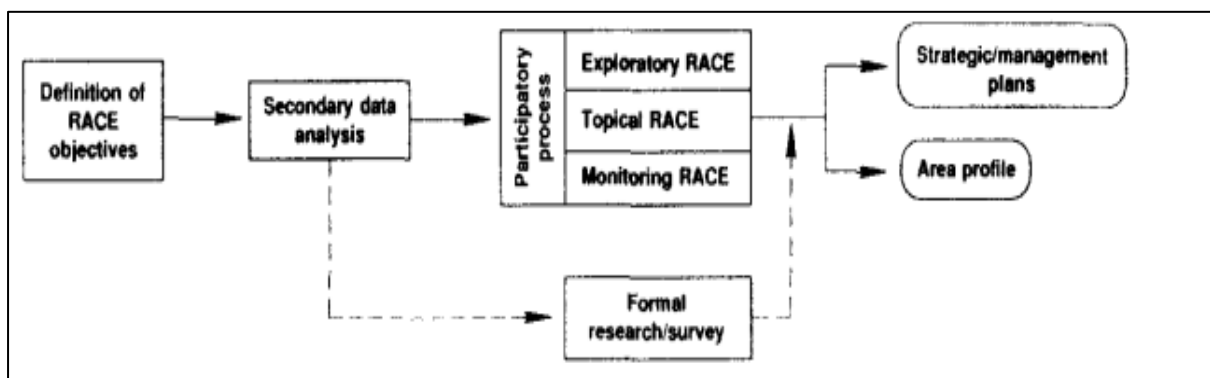
Source: Thia-Eng (1993)

The participatory approach consists of the following three RACE types:

- Exploratory RACE explores key problems and opportunities in the coastal zone as a way to plan research and development projects;
- Topical RACE investigates specific issues identified in the exploratory phase; and
- Monitoring RACE assesses and predicts the impacts (success or otherwise) of a proposed management or development intervention (Thia-Eng, 1993).

Thia-Eng (1993) and Maestro *et al.* (2019) found that policy considerations are among the top-listed management actions for an ICZM programme. From a strategic point of view, government policies and legislation need to be formulated or clarified with respect to the promotion of the sustainable development of coastal and marine areas.

Research has shown that ICZM programmes support the establishment of a strong regulatory framework, as well as organisational structures within which the protection of marine resources and management of sectoral development could be effectively initiated. The sporadic inability of many sectoral or special area (marine areas) management programmes outside the ICZM framework originates from an ineptness to resolve regulatory, interdepartmental, and regional conflicts that can be described as a lack of governance.

This study intends to assess whether good governance is prioritised by the South African, Namibian, and Mozambican governments and their navies. Political commitment to conventions, protocols, and treaties is observed but the actual implementation of constabulary activities by any maritime capability in Namibia and Mozambique could not be verified or observed. In the case of South Africa, there is both a Maritime Directorate with coastal patrol vessels as well as Operation COPPER, where the SAN is actively involved under the agreement of the SADC, but the effectiveness and efficiency of patrolling the high seas with a single warship do not support the type of governance of the EEZ that either South Africa or the SADC wishes to exert. Governance is therefore a factor that requires improved policy review, as well as implementation by all littoral states affected and involved.

2.4 FACTORS THAT AFFECT THE SUSTAINABLE PROTECTION OF THE MARINE ENVIRONMENT OF LITTORAL STATES

According to Schofield (2009), it can be argued that "the incomplete nature of the maritime political map of the world is problematic, in particular because lack of delineation inevitably equates to jurisdictional uncertainty and this is highly likely to be detrimental to maritime security". Schofield (2009) furthermore suggests that the alternative to maritime boundary

delimitation is the option of cooperative mechanisms in areas of overlapping jurisdiction. This, however, would require that the relevant countries provide corporate governance as a regulatory structure that will serve as a baseline for these countries.

2.4.1 Corporate governance

According to Paavola (2006), the biggest challenge that the new institutional approach is faced with is in the implicit definition of "governance". Paavola (2006) found that the literature distinguishes between "governance" and "government" by considering the absence of coercive state power as the hallmark of "governance". It is, however, a known fact that governance is what governments are responsible for. It is also true that situations arise where resource users govern themselves under customary institutions and environmental governance does not involve the government. Research has also found that customary resource users perform the standard regulatory functions of legislation, administration, and adjudication and it then appears as if the government is involved – as the term "self-government" conveys. New institutional research on environmental governance has been tremendously successful in terms of its integration and the impact on policy, yet the potential for new institutional research is far from exhausted (Paavola, 2006).

For the purposes of this study, the impact of marine pollution is deemed one of the key threats to a healthy and sustainable marine environment, and for that reason it is a national and regional imperative to initiate a drive towards synergy and ultimately agreements on how to both individually and collectively protect the relevant marine living resources. The support and guidance, according to this study, thus far are provided by developed countries and global institutions that would benefit from such facilitation.

At the international level, marine pollution is governed through both formal agreements in the form of international conventions/treaties, as well as "soft laws" such as declarations and resolutions adopted at international meetings.

The agencies responsible for implementation are UN agencies, such as:

- the United Nations Division of Ocean Affairs and Law of the Sea (UNDOALOS) at the UN Headquarters in New York;
- the IMO, which is responsible for the regulation of international shipping and navigation activities; and

- UNEP, based in Nairobi, which deals with environmental issues in general (Jackson, 2011).

The relevance and importance of UNDOALOS are its contribution to help facilitate greater acceptance and application of UNCLOS. The mandate of UNDOALOS, as provided by the UN General Assembly, ensures that the General Assembly is provided with feedback on all matters relating to the law of the sea and ocean. The recommendations that it formulates, based on assistance and advice required from countries on the implementation of UNCLOS, support improved ocean governance in conjunction with organisations such as the IMO (UN Oceans and Law of the Sea, 2016).

The IMO is a specialised agency within the UN that has the responsibility for the "safety and security of shipping and prevention of marine and atmospheric pollution by ships" (IMO, 2019). It is important to note that it also supports the UN SDGs and joins the global effort by organisations such as UNEP for improved ocean governance and providing opportunities for capacity building, as is the case with the main aim executed by UNEP.

Cooperation among neighbouring countries is fundamental for effective environmental management because ecosystems and natural resources, and the threats to them, commonly transcend national boundaries and cannot be regulated by individual states alone. This is particularly so in marine environments, and has led to the development of the UNEP Regional Seas Programme (RSP), which now covers 17 regions comprising some 140 countries (Jackson, 2011).

The RSP functions through action plans underpinned in most cases by a strong legal framework in the form of a regional convention and associated technical protocols for specific problems. They thus provide an ideal platform for the implementation of international conventions in addition to regional programmes (Jackson, 2011).

The RSP for the Eastern African Region encompasses five mainland states, namely South Africa, Mozambique, Tanzania, Kenya, and Somalia, as well as five island states, namely Réunion (France), Comoros, Madagascar, Seychelles, and Mauritius; i.e., all the Agulhas and Somali Currents Large Marine Ecosystem (ASCLME) countries. The relevant convention – the Convention for the Protection and Development of the Marine and Coastal Environment of the Eastern African Region, 1985 (Jackson, 2011) – is commonly known as the "Nairobi Convention". It was adopted by seven countries at a conference in Nairobi in June 1985 and

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was effectively implemented on 30 May 1996 after the deposit of the 6th instrument of ratification. It has now been ratified by all 10 countries (Jackson, 2011).

The documentary evidence provided thus far shows that the phenomenon by African countries to review their policy position towards the concept of blue economy is spreading and with that comes the political will to review and amend their policy frameworks. It is, however, prudent to also expect that although political will is shown, the reality of economic woes will impact on the actual ratification and promulgation of the relevant blue economy policies for reasons already stated. The scrutiny from a political, economic, and ecological point of view dictates that developing littoral states are increasingly under international and regional pressure to be seen as being in support of a new institutional protection approach towards the marine environment.

Local common property arrangements, as well as international environmental conventions, have been informed to a large extent by new institutional economics or "new institutionalism". Research has indicated that new institutional research on environmental governance was found to be very successful based on the impact it has had on policy development (Ostrom, 2005). Ostrom (2005) notes that a vast amount of literature still focuses only on one level of governance solutions. This is in direct conflict with the "reality where the governance of environmental resources on a global level requires a multi-level approach due to the governance requirements that exist on national, regional and international levels simultaneously". A situation such as this therefore highlights the requirement for both developing and developed countries to find solutions that will promote sustainable options that address institutional diversity as part of adaptive governance (Ostrom, 2005).

It would thus be beneficial from an environmental governance point of view that rather than the state acting as a national actor, it should present itself as an instrument of "collective action which is often pertinent in environmental governance" (Paavola, 2006). The key focus of state involvement should be that it ensures a different distribution of authority than self-governance options (Paavola, 2006). The researcher argues that based on the neo-regional approach of investigating a transboundary MPP framework, the inevitable differences that currently prevail among the three countries in this study require the national government actors to give serious consideration to their roles as facilitation instruments and not as purely authoritarian figures.

Paavola (2006) further found that "management of natural resources under customary common property institutions and on international environmental governance are the strongest strands

of environmental research informed by new institutionalism. Together they constitute what can be called the new institutional approach to environmental governance".

According to Jackson (2011), the successful management of marine resources requires an integrated and efficient regulatory framework covering national, regional, and international levels. Although the majority of ASCLME countries are signatories to most of the relevant international conventions – and are all members of the Nairobi Convention – there appear to be irregularities and inconsistencies, especially in their national legal and institutional frameworks. Examples of these inconsistencies, according to Jackson (2011), are as follows:

- "There are many cases of overlapping jurisdictions, and a lack of communication across sectors;
- Failure to domesticate the provisions of international conventions even when they have been ratified;
- Even where legislation is in place, the implementation is weak due to a lack of adequate financial, technical and human resources;
- Surveillance activities are split amongst various institutions – this is neither cost-effective nor efficient; and
- Maritime borders between some of the countries have not yet been agreed and with the increasing interest in offshore resources, could lead to conflicts."

The ASCLME Project forms part of a multi-project, multi-agency programme, which also includes the Addressing Land-based Activities in the Western Indian Ocean Project implemented through UNEP, which addresses land-based sources of marine pollution. The objective of the ASCLME Project is to "institutionalize cooperative and adaptive management of the LME [Large Marine Ecosystem]. This objective consists of the following building blocks:

- Build the knowledge base and strengthen technical and management capabilities at the regional scale to address transboundary environmental concerns within the Agulhas and Somali LMEs;
- Build political will to undertake threat abatement activities; and
- Leverage finances proportionate to management needs" (Jackson, 2011).

While all ASCLME countries agree to conform at least to some of the international conventions on marine pollution, it does not mean that the provisions of those conventions are being

complied with on national level, or that they are implemented. This is because the relationship between international and domestic law depends on the prevailing national legal system, which varies from country to country.

There are two basic approaches:

- A monist approach, where international law is regarded as being part of domestic law; and

- A dualist approach, which requires the promulgation of an Act by the national legislature to incorporate international law into the domestic law system. This can take the form of a very simple Act, which merely states that the convention (or other agreement) is applicable in the country concerned (in which case the text of the international law is usually attached as an annexure), or it can be a more complex Act that spells out all of the relevant provisions. This latter approach allows the provisions to be adapted to local circumstances, including the addition of extra provisions, or the merging of provisions from a number of related conventions into a single Act (Jackson, 2011).

From a neo-regional perspective within the SADC region, the latter approach seems to be more accommodative of the political volatility, cultural diversity, language barriers, varying economic infrastructure, and developing MPP frameworks that are present at different levels of operationalisation. The norm among developing littoral states is to consult and co-opt the expertise and experience of accredited organisations that have a proven track record of understanding and facilitating regulatory and policy-development processes that do not necessarily follow mainstream international trends.

According to Jackson (2011), an institution that has proven to be a stalwart in terms of disseminating marine pollution regulatory information is the International Ocean Institute, which has a long history of conducting training and capacity-building programmes. The most recent programme is the annual Ocean Governance course offered by International Ocean Institute – Canada, at Dalhousie University in Halifax. More recently, a regional Ocean Governance course was developed for African countries by the Southern African branch of International Ocean Institute, located at the University of the Western Cape in Cape Town, South Africa. The availability of similar institutions is, however, endless and for that reason developing littoral states have the benefit of selecting one or a combination of institutions, depending on their strategic objectives. The only imperative that needs to be satisfied is that

the outcomes of these interventions need to be in support of national and regional governance structures and frameworks. The implementation of governance interventions requires various considerations.

According to Belfiore (in GEF, 2020), the following specific governance interventions require consideration when attempting to implement ICOM:

- Ensure the existence of an appropriate regulatory framework;
- The provision of appropriate institutional arrangements, such as a lead agency and an ICOM coordinating body;
- Clear geographical boundaries of the plan or programme;
- Regulatory powers and instruments for controlling development in the application area;
- Human, technical, and financial resources to implement the plan or programme; and
- Procedures in place for monitoring, evaluating, and adjusting the plan or programme.

Cicin-Sain and Knecht (in GEF, 2020) state that the main purposes of coastal and ocean governance are to:

- ensure sustainable development of the multiple uses of coastal and ocean areas;
- facilitate the maintenance of essential ecological processes, as well as biological diversity in coastal and ocean areas;
- minimise the vulnerability of coastal and ocean areas to natural and man-made hazards;
- analyse and address the negative impacts of development and conflicting uses in ocean and coastal areas; and
- facilitate the interrelationships among coastal and ocean sectors.

The research conducted by the GEF (2020) found that the selection of governance performance indicators should be based on the following criteria:

- Distinct correlation between ICOM policy and management needs;
- Analytical soundness;
- Easy to comprehend and disseminate;
- Adaptability to organisational development and changes;
- Immediate reflection of the level of cost-effectiveness;
- Suitable for aggregation at the national level; and
- Value added to the reporting process under international and regional agreements.

It is important to note that the choice of performance indicators must be directly aligned with the stage of development of the ICOM programme in accordance with the ocean governance envisaged, both nationally and regionally (GEF, 2020). The alignment is critical should "new institutionalism" and a neo-regional marine protection approach still be seen as a national and regional imperative. The advantage to maintain the impetus and continuity in terms of ocean governance is that it will allow for improved high seas governance, especially in the SADC context between South Africa, Namibia, and Mozambique.

The need to improve ocean governance on the high seas has been a standing item on the Australian government's agenda. Although this requirement regarding the health state of oceans has been raised over a period of two decades, the progress towards ocean governance has been slow. Generally speaking, the overall sentiment in terms of a solution that has been echoed is that the approach that should be followed should be based on integrated and ecosystem-based approaches to ocean governance. Through a quagmire of negotiations and processes, the Australian government reached a point during the Rio Ocean Declaration – an outcome of the 2012 World Ocean Day event at the UN Conference on Sustainable Development (Rio+20) – that it was once more observed that states were called upon to continue developing integrated and ecosystem-based approaches (Taljaard, 2008). It was furthermore found that even in the "Future We Want" outcome document signed by the UN member states there was no mention made of "integration". Notwithstanding the slow progress made towards integration, it remains "a key feature of ecosystem-based approaches that are linked to marine spatial planning (MSP) that is emerging as a salient tool for implementing these approaches in oceans governance" (Vince, 2014).

It is observed, however, that a tool such as MSP that is used within the integrated ecosystem-based approach will not necessarily be applied equally in all scenarios of ocean governance. MSP will therefore have to be reconfigured appropriately in order to effectively address the relevant "marine areas and their defining political, ecological, social and economic characteristics" (Vince, 2014). Within the ambit of UNCED and UNCLOS, the Australian government proved to be one of the global leaders in terms of policy development that attempted to address its difficulties with ocean governance in the 1990s. In 1998, Australia's Oceans Policy (AOP) was released with the main objective to ensure integration through ecosystem-based approaches. The objective was that, although the AOP failed to achieve this broad aim, it did establish an MSP process for the entire Commonwealth marine jurisdiction (Vince, 2014).

Research showed that the Australian government decided to utilise Regional Marine Plans to approach ecosystem-based management of marine resources. This initial idea was finally resolved by refining it to Marine Bioregional Plans (MBPs). "MBPs are based on large ecosystems and describe the marine environment and conservation values of each marine region, set out broad biodiversity objectives, identify regional priorities and outline strategies and actions to address these priorities" (Vince, 2014).

The utility of MSP in the SADC context requires a different approach as the available knowledge base between the respective countries varies considerably. This is furthermore exacerbated by the political and economic tensions that exist and once again vary from one littoral state to another. Each of the littoral states in this study has elements of MSP as it inexplicably forms part of either the ASCLME or the Benguela Current Large Marine Ecosystem (BCLME).

2.4.2   Marine spatial planning (MSP) in context

Vince (2014) postulates that MSP is a proven tool that can provide advantages to the worldwide crisis in ocean governance and is utilised in ocean policies. It is also argued that MSP resembles the definition for concepts such as "integration", "ecosystem approaches", or "zoning".

Taljaard (2008) supported by Vince (2014) furthermore found that MSP is defined as a "public process of analysing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that are usually specified through a political process".

The process of connecting MSP to an ecosystem-based approach allows for the identification of conflicts between the ecological component and the human component. The outcome of this process serves as a tool to minimise conflicts in ocean governance. Using the US ocean policy, it was found that MSP is multi-objective in nature in terms of the following:

- It includes ecological, social, economic, and governance objectives, which are spatially orientated and integrated;
- It is spatially orientated due to results that are expressed in spatial terms within some defined geographic area, which typically corresponds to an ecosystem boundary; and

- It follows an integrated approach because of planners that address spatial requirements and maintain interaction with all elements and activities in the management area (Vince, 2014).

It is globally accepted that the two focal areas in developing MSP have been to protect biological diversity and to establish national marine protected areas (MPAs) by means of a marine protection policy framework. Basically, for MSP to add value, it needs to be within a multi-level policy framework such as a MPP or the suggested NTMPPF. The focus first needs to be on broad international/regional agreements that provide and set the guiding principles for MSP development. After the initial international focus, the next level focuses on national legislation or policies that create a framework for the policy process.

Within the national framework, MSP undergoes the following stages of the policy cycle:

- Planning;
- Implementation;
- Monitoring and evaluation; and
- Consultation.

The documentary evidence provided by Taljaard (2008) and Vince (2014) shows that littoral states such as South Africa, Namibia, and Mozambique, through the facilitation of the SADC SMC, could come to an agreement to form a naval planning committee consisting of various naval command appointees supported by subject matter experts and governmental organisations that focus on MSP per country or per region such as the SADC. The policy cycle, as postulated by Vince (2014), is therefore not restricted to national level but can also be superimposed on the regional level (SADC). After extensive SEA and integration of all ocean-related factors that might affect the review of current MSP development, the next phase will be to stagger the implementation of MSP that includes possible transboundary overlapping in order to facilitate a more integrated approach between the respective littoral states and their navies. The accepted naval doctrine on the mandated constabulary and diplomatic roles will then form the baseline for the initial monitoring and evaluation at operational level, with the subsequent follow-up and reporting to national and regional (SADC) level. The importance of frequent consultation needs to be reiterated as this allows for constant liaison between the respective role players and ensures that all objectives as agreed upon are integrated at all levels.

It is globally agreed that political, environmental, social, technological, legal, economic, and governance objectives must be considered and integrated into the MSP design and action plans (Vince, 2014). The synergy that needs to exist between the previously mentioned objectives and the ecosystem-based approach will allow for the principle of multiple use to help promote the drafting of MSP policies and will allow the various stakeholders to continue advocating the importance of their respective mandates. As Australia identified the need to adapt MSP into MBPs, the opportunity also exists for other developing littoral states to consider best practice and review and amend their relevant MSP into a developing littoral state MBP.

2.4.3   Marine Bioregional Plans (MBPs)

The AOP was found to be an ambitious initiative in a drive to draft a policy that focused on the delivery/implementation of an integrated and ecosystem-based approach. A core feature of this policy was the concept of multiple-use principles. Regional Marine Plans were developed as management tools to implement the policy. The literature, however, has proven that policy will fail if it does not attain the objectives set by proponents, and if opposition does not accept it readily (Vince, 2014). Vince (2014) also states that MSPs and MBPs "can succeed if supported institutionally and through adequate funding and resourcing.

Most importantly, political will needs to support such actions. With regard to the policy process, the MBPs went through the following stages:

- bioregional profiling;
- draft plans;
- consultation period; and
- final plans".

Clear correlation exists between the evidence provided by Taljaard (2008) and Vince (2014) in their argument that littoral states such as South Africa, Namibia, and Mozambique could be required to initiate MBPs by means of bioregional profiling. This encompasses integrating the political, cultural, and ecological systems of naturally defined areas called bioregions. These bioregions are unique in the physical and environmental features they possess. Once the bioregional profiling takes place, the drafting of plans may commence with the input as required. It would, however, be nonsensical to ignore the importance of ensuring a mutually inclusive approach with regard to the involvement of all relevant stakeholders. The period of sourcing input is deemed as the consultation period and needs to be done in a structured manner

in order to prevent unnecessary delays and consequently possible cancelation. Once consensus has been reached in the drafting of the provisional plans, the formulation of the final plan can commence.

Based on the research discussed thus far, it can be postulated that a distinct correlation exists between the drafting of MSPs and MBPs. The main focus needs to be on an integrative approach that allows for a plethora of relevant stakeholders to be engaged in varied levels of engagement prior to the completion of the respective plan.

Based on the abovementioned facts, it is evident that multi-level policy frameworks and the most structured plans are worthless if the policy is not based on a regulatory framework to ensure effective implementation. It is therefore critical that government agencies must have trained and competent personnel that have the capacity to implement the plans. It is also important to ensure that the personnel are properly resourced (Vince, 2014).

Contributing to the complexity of multi-level frameworks is the increasing support given to participatory approaches that are institutional settings where stakeholders of different types are brought together to participate in a formal manner at some stage of the decision-making process (Van den Hove, 2006).

The complexity of environmental and sustainability issues necessitates attention being paid to an approach that is conducive to effective decision making such as the participatory approach previously referred to. Proof of the success of this approach is evident in its inclusion as part of Principle 10 of the 1992 Rio Declaration, where institutional uptake of participation by the EU was significant (Van den Hove, 2006; UNEP, 2021).

Habermas (in Van den Hove, 2006) differentiates between discussions in which stakeholders aim to achieve consensus, and negotiation of a compromise where stakeholders aim to conciliate different and varying interests. The MSP environment is renowned for the differences in interests that are tabled that often lead to legitimate standpoints that appear to be irreconcilable. The situation where legitimate standpoints based on practical issues are presented often results in irreconcilable conclusions, especially when the consensus model is applied. The value of the consensus model, however, proves to be significant when it is considered as a guideline for the design of the participatory procedure. Research further shows that the "consensus model should be combined in some way with a negotiation model" (Van den Hove, 2006).

Situations of conflict, such as in the case with MSP and ICZM, must therefore be facilitated by a participatory process that is designed in such a way that conflict becomes the driver for the materialisation of solutions in the resolution process (Van den Hove, 2006). This can only be achieved by proper training. Participatory processes are based on properly educated and trained participants who comprehend the importance of what is expected of them and who are prepared for the engagement in which they will find themselves. The concept of ICZM, or ICM by implication, requires that all stakeholders are provided with sufficient relevant information in order to constructively participate in the various processes. For the purposes of this research study, it is therefore concomitantly a regional but also an organisational imperative that training be addressed as a prerequisite for effective and efficient policy development.

It is, however, also true that the international regulatory framework that governs the delimitation of maritime boundaries laid down in UNCLOS serves only as a guide as to how such disputes may be resolved, particularly in respect of the broad resource-orientated national zones of sovereign rights, the continental shelf, and EEZ (Schofield, 2009).

According to the UN (2015a),

> each sovereign country is responsible for its own resources and sustainable development through corporate governance. This national responsibility and importance of national policies and development strategies should not therefore be downplayed. Indeed the need for structured international cooperation underpins all aspects of the Blue Economy.

This includes:

- updating and advancing governance mechanisms to ensure the sustainable development of waters beyond national jurisdiction; and
- rendering assistance to enable the effective management and utilisation of national EEZs (UN, 2015a).

It is for the reason of sustainable ocean governance that the National Environmental Management: Integrated Coastal Management Act (No. 24 of 2008) was established in South Africa. Ocean governance is not a new phenomenon at national level, as there are various institutions, such as the Interdepartmental Directors North Sea Consultative Body (IDON) that monitors the North Sea in terms of governance and policy formulation (Barry, Elema & Van der Molen, 2003). The main objective of IDON is to oversee policy development, directives,

and legislation pertaining to the North Sea that various EU ministries formulate, as indicated in Figure 2.9.

The National Environmental Management: Integrated Coastal Management Act provides for a system of integrated coastal and estuarine management in South Africa in order to achieve the following:

- Ensuring that the development and use of natural of resources within the coastal zone are socially and economically justifiable and ecologically sustainable;
- Determining the responsibilities of organs of state in relation to coastal areas;
- Controlling dumping at sea and pollution in the coastal zone; and
- Giving effect to South Africa's international obligations in relation to coastal matters (RSA, 2008).

Figure 2.9: Interdepartmental Directors North Sea Consultative Body (IDON)

Source: Barry *et al.,* (2003)

Over the past decade, environmental issues have arisen that were not commonly thought about when developing military training. For more than 30 years (Goosen, 1973), there was no requirement for the SAN to address marine protection awareness. However, over the last decade, various factors such as legal compliance and financial and political pressures started

to influence the changes in naval policy in terms of investing in human capital through programmes such as the Marine Pollution Awareness Training Programme (Kwak, 2011). These factors required top-level command structures (Kwak, 2011) to consider and integrate marine pollution awareness, knowledge of the legal prescripts that govern marine resources protection, integrated waste management legislation, as well as the emergence of corporate social and environmental responsibility into the SAN policy framework (SAN, 2006; Kidd, 2008).

The SANDF is very specific in its reference to the handling of environmental matters through its environmental policy and the link to compliance and its strategic business plan. The SAN is furthermore very explicit in its commitment through its environmental policy to preventing and combatting pollution in all its various forms on land and at sea (SAN, 2006).

In South Africa, the legal structure that governs marine protection starts at the national level. The legislation is quite extensive, but largely sectoral in the sense that different pressures are governed by different acts and by different government departments. There are also instances where specific pressures are governed by more than one Act and, as a result, cooperative governance is a key consideration for the successful management of land-based pressures on South Africa's coastal marine environment (Taljaard, 2008).

South Africa is a signatory to the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities. This programme promotes and allows governments to express their commitment to prevent the degradation of marine and coastal environments from land-based impacts and threats (Taljaard, 2008). One of these commitments calls on governments to develop and implement a National Programme of Action. It is with the Global Programme of Action and the National Programme of Action as background that the SAN has realised that its environmental policy framework will only be effective in its intent if more proactive systems and programmes regarding waste management and more specifically marine protection controls are implemented.

However, although activity-specific (or category-specific) operational policies are important building blocks for the effective management of marine protection, it is essential that these building blocks be interlinked in an overarching operational policy for the management and control of marine protection in South Africa. In the present fragmented legislative framework of South Africa, this can only be achieved through effective cooperative governance (Taljaard, 2008).

In South Africa's case, there are no "opposite" states, but a maritime boundary has to be delimited between it and its coastal neighbours, namely Namibia and Mozambique. In the case of Namibia, a border has not been established and there is some tension in this regard for various reasons. The question of the location of the boundary in this case is a particularly sensitive one, because of the lucrative living and non-living resources off the mouth of the Orange River, which include the Kudu gas fields, among other resources.

According to Namibia's foreign and defence policy, emphasis is placed on

> the principles of peaceful co-existence and co-operation with other countries and in the operation of international law. The day-to-day guarantee of security lies in the maintenance of international order and, in particular, in the regional stability. Defence relations with neighbours and the international community as a whole are good and the Ministry of Defence and National Defence Force will extend military co-operation and links as far as is practicable (Republic of Namibia: Ministry of Defence and Veteran Affairs, 2019).

It is therefore evident, based on the Namibian foreign and defence policy statements, that a requirement for transboundary agreements and improved policy alignment exists (Republic of Namibia: Ministry of Defence, 2019a).

Transboundary agreements, as postulated by Gove and Mechisso (in ASCLME Project, 2014), will also help to protect the Mozambican littoral zone as the most important coastal settlements inhabit this zone and all Mozambican ports are situated there, which are not only important for the country, but also for the SADC region, including South Africa. It would therefore be to the detriment of both the South African and Mozambican government to not promote greater regional stability and more specifically improve the interoperability among their navies.

2.4.4   Interoperability

It is proven (Schofield, 2009) that the marine environment is fluid in nature and the way in which marine resources transcend artificial political boundaries, as well as the transnational nature of many marine activities, therefore become a national imperative in terms of natural resources. The international maritime boundaries that originated from the unilateral management regimes in the form of UNCLOS are proof of this (Schofield, 2009).

Interoperability between the navies of neighbouring countries therefore becomes crucial in ensuring that an agreed-upon joint approach is followed towards protecting marine resources.

Proof of a joint approach can be found in the Tripartite Environment Ministers Meeting (TEMM) between South Korea, China, and Japan, where great strides have been made during the last decade since its inclusion of South Korea in 1999 (Government of Japan: Ministry of Environment, 2010).

TEMM is known for its achievements (see Figure 2.10) and history under the title "Footprints of TEMM". These achievements include:

- capacity building by increasing awareness among stakeholders such as the environmental community;
- focusing on cooperation by addressing global environmental concerns and committing to environmental research;
- improving the exchange of information and best practices to improve the interaction among stakeholders; and
- planning and implementing appropriate measures to combat environmental degradation (Government of Japan: Ministry of Environment, 2010).

It is a known fact that TEMM has positively contributed to environmental cooperation in the Northeast Asian region through policy dialogue at the ministerial level (Government of Japan: Ministry of Environment, 2010) by means of identifying priority areas.

The most pertinent synergies that TEMM brought about were the extent to which cooperation was improved, the definite improvement of capacity building through raising awareness among the environmental community, and bringing government and science together for improved cooperation.

Figure 2.10: Tripartite Environment Ministers Meeting (TEMM) priority areas
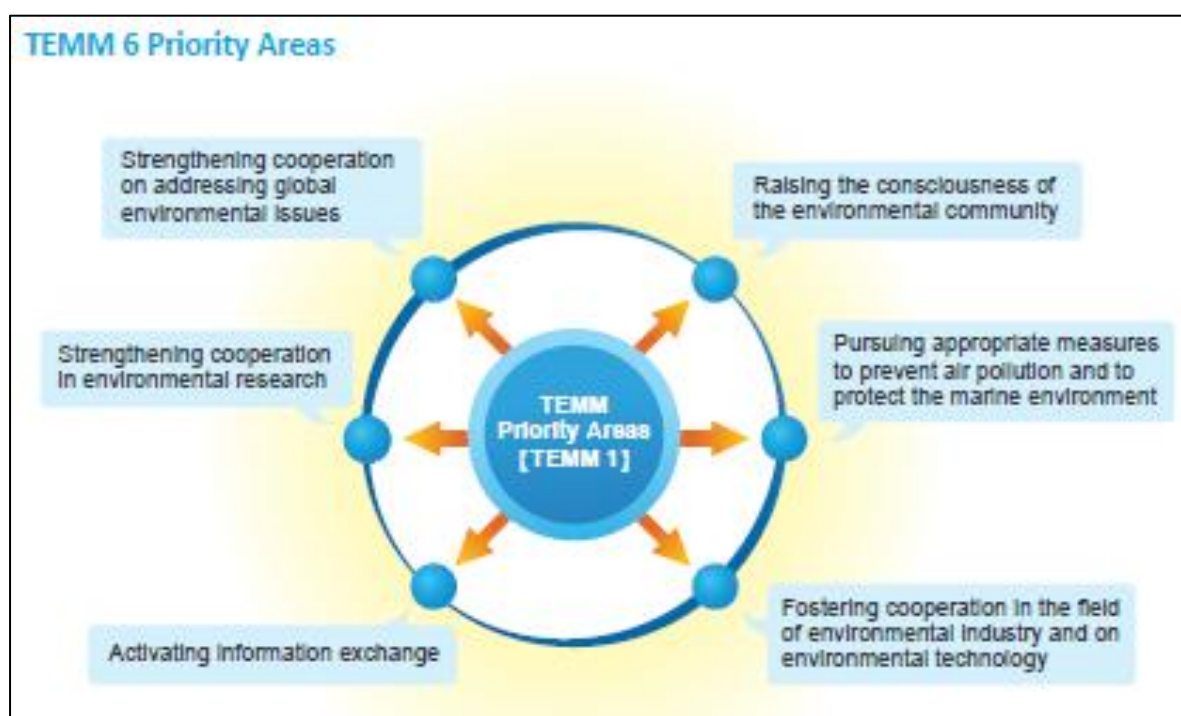
Source: Government of Japan: Ministry of Environment (2010)

TEMM has therefore strengthened numerous aspects in terms of environmental cooperation in Northeast Asia. TEMM has deepened its recognition "that the three countries are a part of one environmental community sharing the same atmosphere, hydrosphere and biosphere, promoted mutual understandings on the policies and measures in each country, and contributed to increasing opportunities for working together" (Government of Japan: Ministry of Environment, 2010). It is further noted that cooperation networks between not only the environmental authorities but also local governments, researchers, academia, and youth from the three countries have been established through TEMM projects (Government of Japan: Ministry of Environment, 2010). The convergence theory as previously mentioned in Seeliger (in Howlett *et al*., 2009) can be observed in the way that the South Korean, Chinese, and Japanese governments tend to converge at the same policy mix.

Although it is still only on political level, there is distinct proof that neighbouring African countries have agreed to engage with one another through marine transboundary agreements in order to promote increased interoperability between their security forces. The AU Constitutive Act (Dersso, 2020) became the pioneer in what has come to be characterised as a "systemic shift in international law, namely a growing tendency to recognise that the principle of state sovereignty finds its limits in the protection of human security". A key feature of the

AU Constitutive Act is the importance placed on protecting people from grave circumstances and the promotion of human and peoples' rights, as well as democracy and good governance. This is reiterated in the Protocol Relating to the Establishment of the Peace and Security Council.

The AU, as part of its policy elaboration and structural development plan to establish an African Standby Force (ASF), has made a great deal of progress with regard to the elaboration of various documents and concepts. During the first phase of the operationalisation of the ASF, five key policy documents were compiled, which include aspects such as doctrine, training and evaluation, logistics, command, control, communications and information systems, and standard operating procedures. "These policy documents were adopted by the African Chiefs of Defence and Security (ACDS) and the African Ministers of Defence and Security (AMDS) at their meeting in March 2008" (Institute for Security Studies, 2014). Politics clearly played a prominent role during the process of policy development.

Proof of the commitment of the ACDS towards the ASF can be found in the Abidjan Convention for the Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region and its protocol (Abidjan Convention Secretariat, 2014). It is clear that training and evaluation are seen as an important factor in the development of an ASF as it is listed as the second most important operational imperative.

2.4.5 Environmental education and training

The preceding factors that are postulated to influence the sustainable protection of marine resources belonging to littoral states are directly dependent on the provision of education and training to all the relevant stakeholders and role players. Training as a form of capacity building is regarded and accepted as a key pillar in any organisation and is a function that should be developed to facilitate learning at all possible levels. It is normally regarded as a planned short-term effort to modify competencies, attitudes, beliefs, and knowledge through different learning experiences (Coetzee, Botha, Kiley & Truman, in Kwak, 2011). Training as part of capacity building should also be structured in such a way that it promotes organisational performance and the individual growth of all employees involved (Swanepoel, Erasmus & Schenk, in Kwak, 2011).

The information depicted in Figure 2.11 provides a clear message that littoral states, especially developing states, cannot expect to improve overall ocean governance and to create an

improved level of marine protection awareness if the marine-scientific support to improve the study of ocean marine protection science does not receive political and economic support by littoral states in general. This message is communicated by the UN and various other international and regional world entities. Capacity building is therefore a critical element of policy formulation and development and is key to the informed decision-making capability for governments and organisations in pursuit of good governance and sound communication.

Figure 2.11: Importance of marine protection training
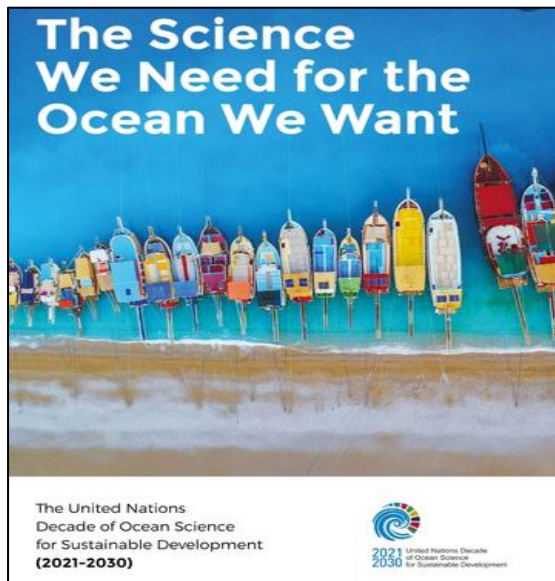
Source: UNESCO (2019)

Gray, Hall, Miller and Shasky (in Kwak, 2011) found that government organisations are increasingly accepting the fact that the management of employees has become the focal point of organisations throughout the world. In the context of this research, it is also important to take cognisance of the research conducted by Cannon-Bowers and Salas (in Kwak, 2011; Holton, Bates & Naquin, 2000) where substantial evidence was found that "socio-cultural, technological, economic and political pressures all forced organisations to realise that training management underpins the success of any going concern". The studies conducted by Swanepoel *et al.* (in Kwak, 2011) support the notion that organisations have an obligation to scrutinise and review their objectives, gain a better understanding of possible behavioural changes, and be committed to continuously improve the standard of capacity building.

The SAN has adopted this perspective in order to be a leading naval force (SAN, 2010). From the American perspective, Hayes (2008) states that "the Navy's paradigm of leadership cultivation must start at the beginning", namely with the naval recruit. This approach by the

USA corresponds with that of the SAN, and it is the future influence of naval recruits that forms part of the focus of this study. The reader is reminded that naval employees commence their training with a focus on basic organisational values. In the SAN, one of these values is the protection of the oceans as naval custodians.

According to Amos, Ristow, Ristow and Pearse (2008), training is "an attempt to alter or change the knowledge, skills and behaviour of employees in such a way that organisational objectives are achieved". Swanepoel *et al.* (in Kwak, 2011) postulate that training "is a learning experience, set within a certain period, with the intent of promoting performance improvement and/or personal development". It is therefore clear from the reviewed literature that for organisations to excel in or to adapt to a revised policy framework, it is important to first embrace the baseline knowledge before a new system or a policy framework can be introduced. For that reason, the concept of ICM might be a familiar term to informed academics and marine biologists but is certainly not a naval term that is used frequently by navies in general. It is important for littoral navies, especially emerging navies, to take cognisance of knowledge and information as provided by ICM that have been embraced internationally and that might bring about positive change to the strategic challenges that are imposed on developing navies.

As a well-researched topic, the concept of ICM was embraced by nations around the world as a central concept in the management of coastal zones and ocean areas under national jurisdiction in Chapter 17 of Agenda 21, adopted at UNCED, also referred to as the Earth Summit, held in Rio de Janeiro, Brazil, in June 1992. Chapter 17 stresses both the importance of oceans and coasts in the global life-support system and the positive opportunity for sustainable development that ocean and coastal areas represent (Cicin-Sain *et al.*, 2000).

In general, it is accepted to think of capacity building in only the developing nation context. However, according to Cicin-Sain *et al.* (2000), capacity building

> should also be applied to developed nations as well. ICM is a novel paradigm for developed and developing nations alike. Hence, there is a similar need to reorient existing coastal managers, and to train and educate them in a more multidisciplinary and integrated manner. The differences, though, is that in the developed countries one is building on a base of sectoral and discipline-based expertise, which is often absent in developing nations.

Harvey, Clarke and Von Baumgarten (2002) confirm that there is indeed an increasing requirement for competent coastal management practitioners and organisations with expertise in planning for and implementation of ICM. Chapter 17 of Agenda 21 is supportive of the new approach to ICM where focus is placed on the need for review of coastal management education and training. This is because there is a lack of national capacity, which has had a serious impact on the successful implementation of ICM globally (Harvey *et al*., 2002). More specifically, it has been identified that effective ICM programmes are directly dependent on competent professionals who specialise in the areas of coastal policy, coastal planning and management, and programme implementation. The result of this new way of ICM thinking is that it creates a "new paradigm of management for the managers, and a new way of thinking and educating for scientists" (Harvey *et al*., 2002).

The type of capacity-building programmes that have been researched by Harvey *et al*., (2002) encompasses training to improve the management and technical competency levels of participants, skills development through workplace training, and "development of education and information materials to support community involvement in coastal management" (Harvey *et al*., 2002).

Initiatives undertaken by international aid agencies in support of programmes in developing countries include the following:

- UNEP funds coastal management training programmes through its Global Environment Fund, such as the Pacific Islands Country Climate Assessment Programme and through its education programme, the Network for Environmental Training at a Tertiary Level; and
- The University of the South Pacific, in conjunction with the Train-Sea-Coast Programme of the UNDOALOS, has developed courses that target middle- to upper-management personnel in government, planners, and users of marine resources.

Globally, it is visible how coastal areas have deteriorated in terms of exploitation because of resource-use pressures, which have been further exacerbated by poor management. This type of poor management gave rise to ICZM as a tool designed to apply the key principles of harmonisation, participation, and strategic planning to the sustainable development of coastal areas (Barker, 2005).

Barker (2005) refers to several authors who have indicated that "the extent to which ICZM can effectively deliver sustainable development objectives will be dependent upon an ability to engage in the process of capacity building". Kay and Alder (in Barker, 2005) define capacity building as "the process of increasing the capacity of those charged with managing the coast to make sound planning and management decisions".

The capacity-building process normally involves a wide spectrum of policy dialogue methodologies structured to overcome resource-use animosity among stakeholders. ICZM-based capacity building or training has progressed significantly over time. Wescott (in Barker, 2005) indicates that successful development of capacity building within the different policy tiers is actively executed. Proof of this can be found in the use of international advisory bodies to promote improved transboundary agreements to the use of community networks at the regional level. It must, however, be stated that despite such developments, capacity building is still seen as an area that requires further development within ICZM performance. In addition to low levels of governmental and institutional commitment, Poitras, Bowen and Wiggin (in Barker, 2005) postulate that progress in capacity building, within the different policy tiers, has not received the necessary level of support due to limited representation and overemphasis on the outputs of decision making.

The key concern, of course, is that an increase in policy tiers does not create political inequity or a state of conflicting management objectives, especially when engaging within a transboundary agreement. When policy is stratified into tiers, it is best to consider an SEA, which allows for the evaluation of the environmental and socio-economic impacts of policies, plans, and programmes at each stage of the decision-making hierarchy of ICZM (Barker, 2005).

The UN has recognised capacity as an absolute necessity as far back as Rio 92, where a basic pillar of capacity building consisted of cooperation. This type of cooperation was seen as an empowerment process consisting of the expansion of knowledge, development of skills, and institutional strengthening.

All environmental challenges in one way or another imply the need for human capital, which relates to the involvement and continuous provision of well-trained and highly skilled professionals to ensure continuity. Increasingly, issues that deal with global public goods emphasise the need for social capital, since it is related to the capacity for cooperation that a society may have.

Globally, it is observed that resources and ecosystems are deteriorating at an alarming rate, and in developing countries specifically the degrading is alarmingly visible. The policies and capacities, as well as the importance or relative weight that each country grants to environmental issues, will always be relatively different (León & Robles, 2002). As maritime security is also the responsibility of littoral states' navies, it stands to reason that navies are legally obliged to provide capacity building for protecting marine resources.

From a naval perspective, the Royal Australian Navy is an example where, in order to ensure continued access by units to vital offshore training areas, all activities must be managed to minimise risks to the marine environment. The Royal Australian Navy's Maritime Activities Environmental Management Plan ensures that activities routinely conducted at sea are managed appropriately. It is widely acknowledged as among the most comprehensive and effective plans in use today (Cole, 2012). From a contemporary point of view, it is important to note that navies across the oceans, irrespective of whether it is a developing or developed naval force, are increasingly faced with the challenge of being supportive of the constitutional expectations that rest upon them. It is also noted that there are increasing pressures on industries across all sectors to provide proof of due diligence undertaken of the natural resources available to them, least of all the navies of developing countries. These pressures, being either political or economic, need to be communicated and built into capacity-building programmes in order to ensure that the protection of natural resources is maintained. The presence of navies in EEZs and on the high seas plays a critical role in protecting marine resources and creating an environment that is conducive for developing littoral states to experience a relative state of security while trading with other nations. The researcher therefore postulates that it is in this context that researchers and government officials alike must take heed of the need to consider ICZM as a capacity-building measure, as well as other ocean management tools that could improve the sustainable management of the various ocean resources under their jurisdiction.

Globally, it is observed that most coastal countries have already allocated ocean space to ICZM. Examples of these specially marked zones are the following:

- Marine areas for resource exploitation (offshore oil and gas and development areas);
- Marine areas designated as dumping sites;
- Marine areas delineated for shipping routes and traffic separation schemes; and
- Marine areas designated for nature conservation (Douvere & Ehler, 2009 Rozas-Vásquez *et al*., 2017).

It can thus be inferred that the majority of these allocated areas of ocean space resulted from international and regional agreements. UNCLOS has been instrumental in providing the global oceans framework with a system for the allocation of ocean space to national states through the codification of concepts such as the territorial sea of 12 nautical miles (nm), the EEZ of 200 nm, the contiguous zone, the continental shelf, and the high seas. Further examples include agreements on the delineation of special areas for the prevention of sea pollution introduced by the IMO and the protection of cultural and natural world heritage (World Heritage Convention) (Taljaard, 2008; Douvere & Ehler, 2009). These maritime zones form an integral part of the capacity-building process of all maritime education and training programmes, although the respective sectors do not synergise their capacity-building programmes.

Taljaard (2008) and Douvere and Ehler (2009) also postulate that the challenge with the designation of areas for both economic activities and marine area protection is executed on a single-sector basis. There is ample proof that current practice does not have a plan-based approach and shows no consideration of the sector policies or conservation requirements that may be conflicting or incompatible. Establishing boundaries for management and planning efforts is also most often based on political considerations and is not necessarily meaningful from an ecological perspective. The synergy that is expected to exist among marine protection capacity-building programmes based on regulatory prerequisites and due diligence expectations does not exist from a cross-sectoral perspective.

There seems to be no visible, clearly communicated spatial plan for the future use of marine areas that are in existence. The absence of ocean management policies in marine areas lends itself to the following end states:

- Spatial overlap of human activities and their objectives, causing conflicts in the marine environment;
- Lack of connection between the various authorities responsible for the protection and management of the marine environment;
- Insufficient connection between offshore activities and resource use and onshore communities that are dependent on them;
- Lack of conservation of ecologically sensitive marine areas; and
- Lack of investment certainty for marine developers and users of ocean resources (Taljaard, 2008).

The need for cross-sectoral capacity building and integration of the respective marine spatial areas will benefit not only the respective users but will also bring about stability in ocean governance and the drive towards a stable blue economy.

It can, however, be argued that it is a policy imperative to consider a more holistic and all-encompassing approach that will include all domains that need to be addressed within the policy framework by varying methods of capacity building. The inclusion of MSP and an ecosystem-based management approach provides for sustainable inclusivity and a more delineated defining process when attempting to address the identified objectives. The researcher postulates that the time taken by means of capacity building to ensure that all stakeholders understand how MSP and an ecosystem-based management approach will be combined needs to be assessed in order to ensure that no unnecessary delays compromise the process of policy development.

Douvere and Ehler (2009) also state the importance of recognising the fact that marine spatial management tends to influence only the spatial and temporal distribution of human activities. In the case of implementing the multiple objectives that form part of an ecosystem-based management approach, a wide variety of tools are required. Marine spatial management attempts to achieve this by defining:

- the boundaries of the ecosystem to be managed;
- ocean spaces with special ecological or biological value in the ecosystem;
- ocean spaces with special economic value and potential;
- ocean spaces where the effects of human activities interact positively or negatively with ecological functions and processes; and
- where conflicts are occurring or might occur.

The multiplicity of the marine domain that policy developers are confronted with requires a structured and clearly defined system that promotes transparency, expeditious completion of the respective policy-development phases, and measurable objectives that are achievable. The fact that there are specific language barriers from a Mozambican perspective and to a lesser extent from the Namibian contingent requires the appointed policy developers to consider the type and extent of capacity building that need to precede the planning and development process of SADC policy initiatives.

The AU, in terms of the ASF capacity building, has only over the last decade started to address training at the continental and regional level. The training, however, does not explicitly address

environmental training and education but only operational mission readiness. It is recognised that the ASF brigades are constituted of multi-dimensional contingents, and therefore there is a need, although challenging, for continuous joint training at different levels (Walker, 2015a).

One of the main threats to sustainable coastal management in South Africa is diminishing expertise in government departments, from the national to the local level. There are several reasons for this situation; one being the lack of continuity where departments are unable to maintain a critical mass of expertise to implement management and administrative functions. This is a complex issue with no simple solutions. Aspects to consider include basic qualifications (e.g., appropriate tertiary education) and skills and experience (e.g., through job-specific training programmes) (Taljaard, 2008).

The situation needs to be addressed by creating an enabling environment where there is the political will, as well as proper leadership and motivation. Of great importance is skills retention to facilitate mentorship of combatants. Although appropriate basic qualifications are essential, the development of skills and expertise specific to the management and administrative functions in departments is often lacking. For example, policies, legislation, and best practice guidelines are usually developed at the national (or provincial) levels without ensuring proper communication to the local level where they are implemented. Dedicated training programmes can also become useful support elements. In South Africa, the Department of Environmental Affairs provides national leadership for promoting sustainable coastal development in South Africa. The Department of Environmental Affairs recognises that the more people are informed about our coast, the easier it will be to protect it, and to ensure that its development is to the benefit of current and future generations. To this end, it established a special programme, namely Coastcare, to assist with education and the exchange of information about coastal issues primarily aimed at the implementation of the White Paper for Sustainable Coastal Development in South Africa (RSA: Western Cape Government, 2020).

The successful implementation of a policy depends largely on effective education and training to promote knowledge, understanding, and skills in coastal management. In the short term, a full needs assessment should be conducted to determine requirements and priorities for the education and training of all role players and stakeholders at the national, provincial, and local levels (RSA: Western Cape Government, 2020).

In the medium term, the national and provincial lead agents should develop a full education and training programme with a range of formal and informal education opportunities for all

role players, and emphasis should be placed on conducting programmes in local coastal areas. This programme should be developed in dialogue with all key role players at national, provincial, and local levels. The programme must also focus on the effective exchange of knowledge and the development of practical coastal management skills (RSA: Western Cape Government, 2020). Research conducted by the South African DOD (2005) suggests that the level of awareness regarding pollution issues varies among members in the military.

The Massachusetts Maritime Academy (2010) has a similar training programme to the Marine Protection Awareness Training Programme investigated and possibly envisaged by the SAN (Kwak, 2011). The modules presented in this pollution control programme consist of the following:

- Ecological Consequences of Marine Pollution;
- Marine Pollution and Vessel Engineering Systems;
- Marine Pollution and Deck Operations;
- Legal Issues in Marine Pollution; and
- Environmental Communication in the Maritime Industry (Massachusetts Maritime Academy, 2010).

According to Kwak (2011), although policy on marine protection exists within the SAN context, it is clear that as a member of the SMC and ISDSC it has a regional responsibility to facilitate the formulation and alignment of MPP with the Namibian and Mozambican neighbouring states.

2.5   CONCLUSION

This chapter focused on literature that describes how policy is developed, what factors are taken into consideration, and the different approaches that are used to develop policy. The importance of policy development in the international, regional, and national context was reviewed in order to align it with the research questions and objectives of this dissertation. The literature review then focused on the extent that policy affects marine protection in terms of governance and capacity building. This was followed by a review of the current state of MPP frameworks among developed and developing littoral states, with the focus more on NTMPPFs. The researcher addressed the respective ocean management paradigms in terms of mitigating measures, as well as the limitations and opportunities that might arise from these

initiatives. The literature study emphasised the SADC, which, as a developing region, varies considerably from a developed littoral region.

The research discussed in this chapter provided clear indications that there is no single system or model that can serve as best practice on how to develop an optimum MPP framework for the marine environment. A fair amount of success has been achieved with stakeholder engagement in Australia and Canada. It is also observed that European methods towards conflict resolution and user compatibilities in multiple-use environments have progressed significantly. The literature review, however, did not provide any tangible proof of any military- or navy-related type of neo-regional marine protection agreement or policy framework that may serve as best practice for other developed or developing countries to follow. At an SADC level, the focus, as observed by the researcher, is also more on maritime security and stability and not on the responsibility of SADC navies to engage one another on MPP improvements. The researcher observed many different policy options but these will have to be adjusted to emerging littoral states that experience their own unique national and regional challenges.

Globally, it is agreed that, based on subject matter literature and best practice around the world, MPP development cannot be limited to a "one-plan-fits-all" concept. It is important to be reminded that spatial management is directly dependent on the political will and long-term commitment of society and financing. It would be advisable to consider the work done by UNESCO's Intergovernmental Oceanographic Commission and the Man and the Biosphere Programme, which provide a comprehensive set of guidelines and principles for the implementation of ecosystem-based marine spatial management (Douvere & Ehler, 2009).

The development of an MPP framework among the three navies of the SADC is therefore not an insurmountable task, but it requires careful deliberation and extensive stakeholder engagement in order to ensure that all possible factors are addressed and considered. The consideration given to best practice is indeed important but it is more important to take into cognisance the neo-regional approach considered in this dissertation, the current AU and SADC developments, as well as AU and SADC strategic thinking and planning that were done as precursors to Agenda 2063 and AIMS 2050. The current SADC Maritime Strategic Strategy makes provision for transboundary oceans governance but does not address MPP frameworks and this dissertation therefore postulate that there is a need for the development of a MPP framework.

The global drive to emphasise the growing importance of exercising better governance of the ocean bodies across the world by means of UN-led practices or best practice according to each region is becoming the new norm from an economic point of view. It is, however, a legal and governance imperative to ensure that synergy is achieved and maintained with global MPPs in order to improve symbiosis between different developed and developing littoral states. The main reason for this is to recognise the important role that emerging countries are expected to play and maintain within the high seas.

The intent of the next chapter is to explore the nexus between a global protection of marine resources renaissance and the emergence of the African marine resources protection domain. The chapter provides contextual background of marine protection at a global level and then delineates it to the level of Africa in order to gain a better understanding of what the current status quo of marine protection is in littoral zones of Africa. Thereafter the focus of the literature study shifts to the SADC and the three developing littoral states, namely Namibia, South Africa, and Mozambique.

CHAPTER 3:

THE EMERGENCE OF NEO-REGIONAL TRANSBOUNDARY MARINE PROTECTION

3.1   INTRODUCTION

In the preceding chapter, the literature study explored the continuum in terms of good ocean management policies that includes ocean governance and marine resources management capacity building that form the foundation for the blue economy considered by both developed and developing littoral states. The chapter also explored the consideration given by littoral states to ocean governance policy imperatives to consider a more holistic and all-encompassing approach that will include all maritime domains that need to be addressed within the ocean governance policy framework. The inclusion of MSP and an ecosystem-based management approach were studied to gain a better understanding of sustainable inclusivity and a more delineated defining process when attempting to address the identified objectives. The researcher furthermore extrapolated the context of marine protection based on the integration of good ocean governance and marine resources management training at national and regional level in the respective policies and management systems.

The researcher's intent in this chapter is to first provide the context for marine protection at a global level and within the international context, narrowing it down to describe the status quo of marine protection in the oceans of Africa. Thereafter the researcher will focus on theory and concepts pertaining to the SADC and the three developing littoral states, namely Namibia, South Africa, and Mozambique. The main objective of this literature study is to conduct research on NTMPPFs.

The intent of this chapter is therefore to analyse whether the integration of NTMPPFs has reinforced and facilitated symbiosis between the various emerging, littoral, and developing states. This chapter furthermore attempts to gain a better understanding of the ever-increasing important position of the AU's emerging role in promoting the securing of neo-regional integration of MPP frameworks among African states within the AMD (African Ministerial Conference on the Environment [AMCEN], 2017).

3.2   LITTORAL INTEGRATION OF MPPs

There is a worldwide trend of more emphasis being placed on the necessity to exercise good ocean governance and to prove due diligence by means of the review and amendment of archaic governmental policies and management strategies relating to the marine environment and to promote a more inclusive, long-term, sustainable ocean management approach. The "old" archaic approach taken by littoral states to address each environmental impact in isolation has long been proven to be insufficient. The integrated ocean management approach, which includes the utility of having a network of MPAs, is increasingly becoming a common tool used among littoral states in their strategy to protect critical areas of the marine environment from exploitation (Duda & Sherman, 2002; Yoffe *et al*., 2004; Guénette & Alder, 2007). The challenge, however, for developed and developing littoral states is that not all areas are proclaimed as MPAs and therefore the rest of the littoral areas needs protection in an adequate manner.

At the international level, there seems to be a prevalence to rather divert the marine protection focus towards the impact of development on larger areas, encompassing coastal, inshore, LMEs, and high seas areas, including MPAs, than to focus only on narrow coastal strips of land-water interfaces (Yoffe *et al*., 2004; Guénette & Alder, 2007). This diverted focus is symptomatic of the socio-economic and socio-political influences that are exerted by stakeholders who are intermittently negatively affected by the harmful impacts of new developments and who depend on these LMEs for their livelihood.

The ecological and economic importance and significance of LMEs (see Figure 3.1) across the oceans of the world are accepted by all and sundry (Brown, 2016). The inherent nature of LMEs as large oceanic water bodies that collectively form part of one ecosystem requires that the littoral states that border these oceanic bodies are compelled to adjust and sustainably utilise the marine resources and economic benefits that LMEs possess.

Figure 3.1: Large Marine Ecosystems (LMEs) of the world
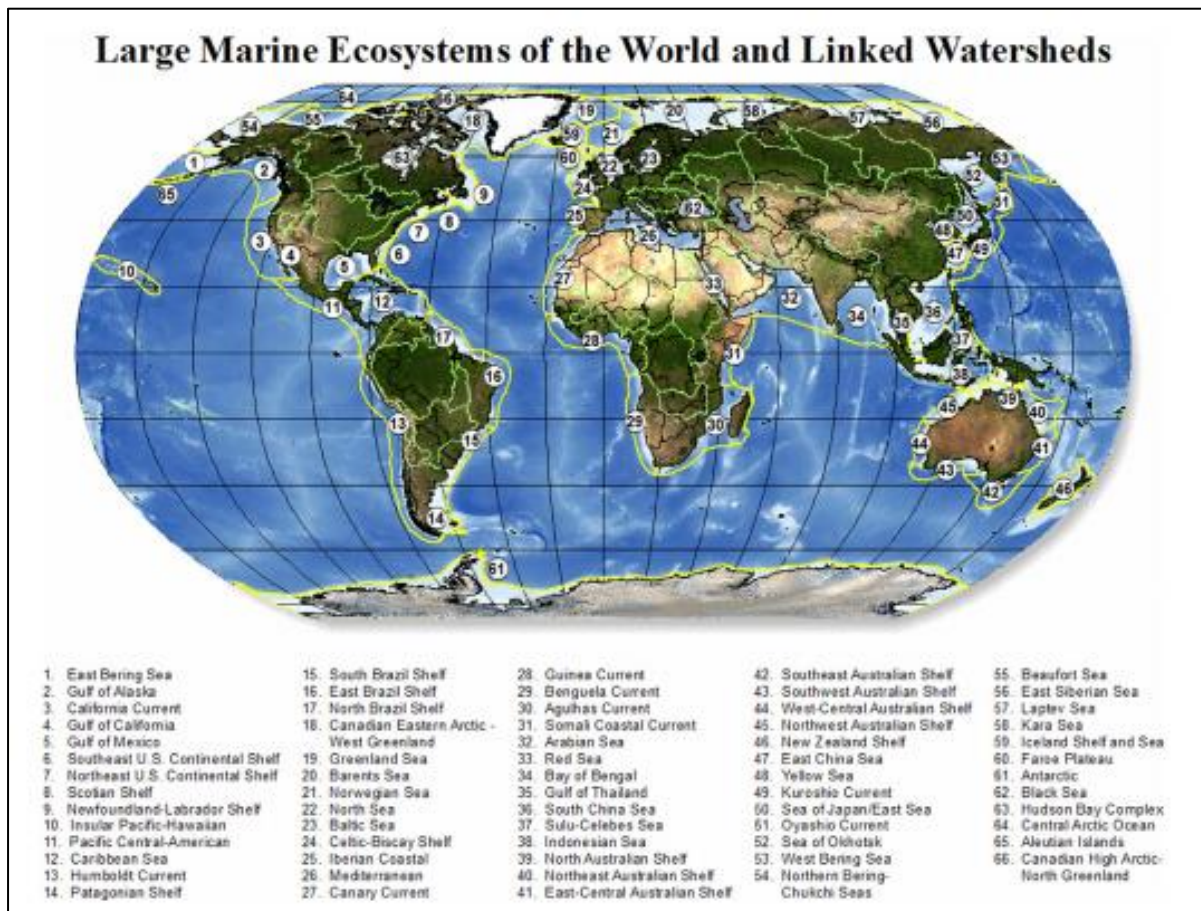
Source: Brown (2016)

It is clear from Figure 3.1 that LMEs are an international oceanic phenomenon and that all littoral states should in one way or another align themselves with their littoral neighbours and regional stakeholders based on the principle of marine custodianship and good governance.

According to Duda and Sherman (2002), and as supported by Taljaard (2008), LMEs "are regions of ocean space encompassing coastal areas from river basins and estuaries to the seaward boundaries of continental shelves, enclosed and semi-enclosed seas, and the outer margins of the major current systems". It is especially in the context of LMEs that more attention is being paid to marine protection due to the diverse biodiversity found in these sensitive but important socio-economic sources of income and security. The researcher, however, needs to remind the reader that LMEs are not bound by physical borders and interface with a plethora of marine bodies. This inevitably compels littoral states to acknowledge the fluid nature of maritime boundaries, the impact of LMEs on the current political policy framework of each state, and that the respective economic regions and their EEZs need to be managed inclusively for the benefit of all affected stakeholders.

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Duda and Sherman (2002) furthermore found that LMEs

> serve as place-based, ecologically defined areas for which stakeholder support for integrating essential national and multi-country reforms and international agency programmes can be mobilized into a cost-effective, collective response to an array of conventions and programmes. Site-specific ocean concerns, those of adjacent coastal areas, and linked freshwater basins are being addressed in LMEs through GEF assistance as a joint operation with various stakeholders.

Joint operation of marine institutions through entities such as the GEF are being supported by more and more littoral states; irrespective of whether these states are developed or still developing. It is done in order to test and "restore biodiversity to sustainable levels in order to meet increased needs of coastal populations, and [to] reverse the precipitous declines in ecosystem integrity currently being caused by over-fishing, habitat loss, and nitrogen over-enrichment" (Markus, Schlacke & Maier, 2011). Examples of commitments made by the world community, which includes the GEF, towards possible alternatives in a sustainable manner include international instruments such as UNCLOS, the CBD, the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, and the UN Framework Convention on Climate Change. A trend among developing countries, since the mid-1990s, is the increasing approach to liaise with the GEF for assistance in improving the management of LMEs shared with neighbouring nations (Markus *et al.*, 2011).

The GEF originated from a three-year pilot phase, after which it was formally launched "to forge cooperation and finance actions in the context of sustainable development that address critical threats to the global environment: biodiversity loss, climate change, degradation of international waters, ozone depletion, and persistent organic pollutants" (Duda & Sherman, 2002). It originated as a pilot programme on the eve of the Rio Earth Summit and has developed into an internationally renowned partnership that unites 184 countries, 18 partner agencies, and a growing network of civil society and private sector representatives (GEF, 2017). GEF projects are implemented by the United Nations Development Programme (UNDP), UNEP, and the World Bank, and expanded opportunities exist for participation by other agencies (Duda & Sherman, 2002).

The gradual progression of littoral states to move away from silo-based governance to cooperative governance with regional stakeholders is indicative of the urgency experienced by littoral states in terms of their declining marine resources. The research (Kwak, 2011)

conducted thus far indicates that there are definite opportunities among littoral states, especially developing littoral states, for improved ocean governance by means of the co-opting of partners, including, but not limited to, the GEF.

According to the GEF (2017), the GEF is "the world's largest public funder of environmental projects, and the financial mechanism for the UN Rio Conventions and other multi-lateral agreements". It is with concepts such as integrated oceans management (IOM) (see Figure 3.2) that the GEF intends to promote an increase of competency and overall ocean governance among both developed and emerging littoral states.

The concept of IOM (see Figure 3.2) focuses on a process whereby the planning area first needs to be assessed and defined based on available knowledge and information. This could be problematic in the context of developing littoral states where the knowledge and information vary considerably and exacerbated by factors such as language and poor infrastructure. Once the planning area is determined, the next step consists of an assessment of both the socio-economic and ecosystem overviews. The socio-demographic data, industrial sectors, and cultural aspects will be assessed. It is, however, important to integrate the geophysical information in combination with the ecological characteristics and the available resources that exist in the planning area.

The process of IOM for the purposes of this study emphasises the importance of integrating all objectives that need to be synergised based on the priorities identified by SADC member states and their navies.

Figure 3.2: Integrated oceans management (IOM) planning process
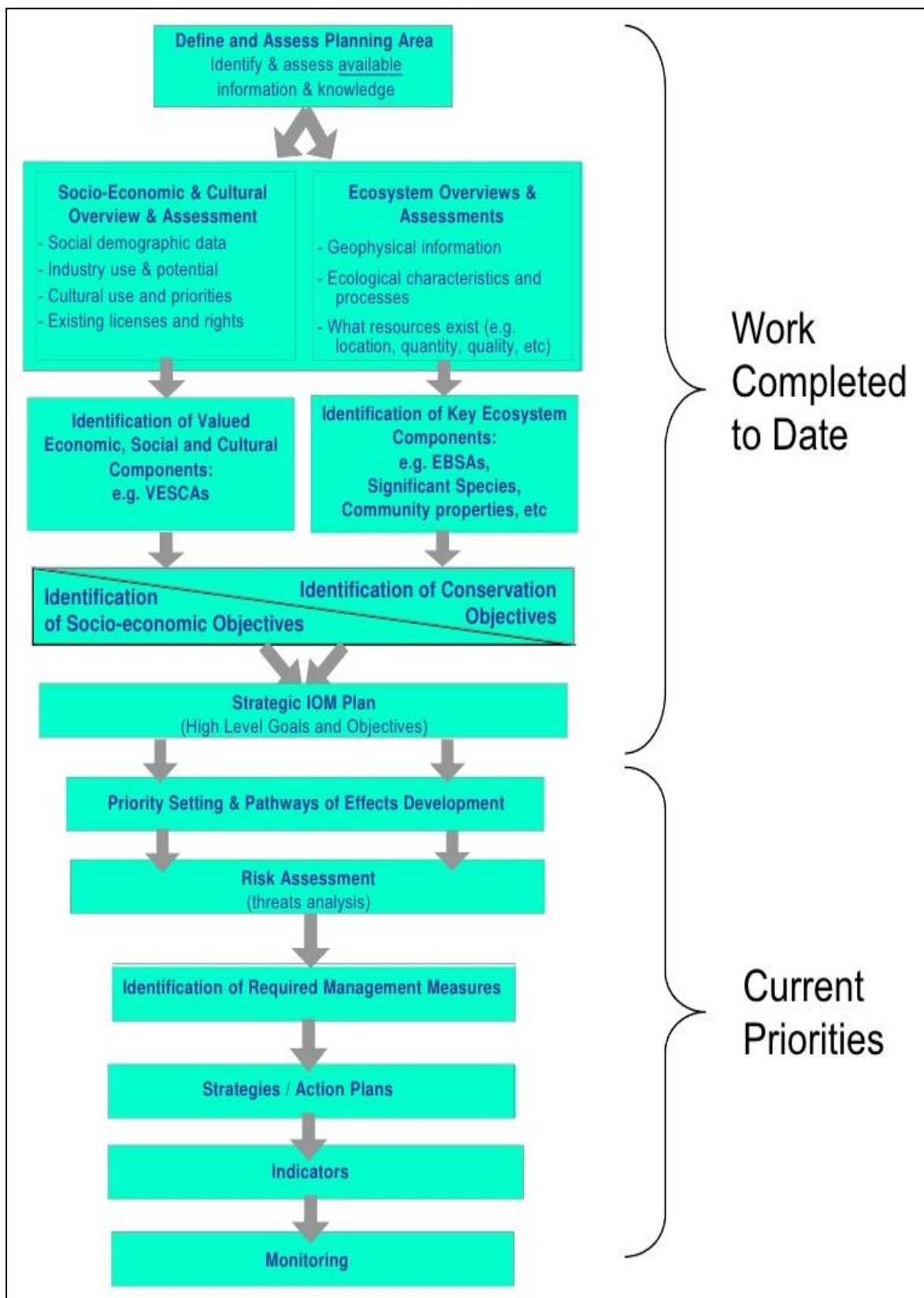
Source: Williams and Campbell (2012)

As soon as the overview and assessment have been conducted, the identification of common valued economic, social, cultural, and key ecosystem components needs to commence. It is envisaged that this step might require extensive collaboration and consultation among stakeholders as littoral states vary in terms of their respective valuation of identified valued components as stated in the overview and assessment stage. The valuation of the identified components will result in the identification of strategic conservation and socio-economic objectives. This too will vary from one REC with its littoral states to another. It is, however, a procedural imperative that the integration of the various objectives be synergised in order for IOM to be strategically effective.

The implementation of the IOM plan needs to be operationalised by setting priorities and pathways to ensure the development of the envisaged effects. This is followed by a threat analysis or risk assessment based on different scenarios that exist in the respective littoral areas. The identified risks will give rise to mitigation measures and action plans in support of the IOM implementation process. The success of the IOM process is measured by means of performance indicators and monitored for the duration of the implementation process (William & Campbell, 2012). This process is typical of the management processes that government and industry alike utilise. The only distinct factor that is given specific prominence is the ecosystem overview and assessment, which do not necessarily receive heightened emphasis in developing littoral states when marine resources are earmarked for possible development.

From a developing littoral state perspective, it is expected that governments, depending on their commitment to good governance and process synergy, will show different levels of IOM integration and implementation. This will be even more prevalent when the factor of cross-sectoral IOM integration is assessed. The differences among developing littoral states in Africa and more specifically the SADC therefore necessitate careful consideration of a planning process such as IOM.

From an AU perspective, the political and economic stability and regional cohesion that underpin the importance of having RECs[1] in the AU require any attempt to introduce or initiate

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[1] The AU recognises eight RECs namely Arab Maghreb Union, Common Market for Eastern and Southern Africa, Community of Sahel–Saharan States, East African Community, Economic Community of Central African States, Economic Community of West African States, Intergovernmental Authority on Development , and Southern African Development Community.

a typical IOM planning process to be conducted with an inclusive and multiple-stakeholder approach.

There is therefore a distinct aspect that must be considered when contemplating the integration and implementation of management tools such as IOM or ICZM and MBPs, as previously discussed. The aspect entails the fact that developing littoral states are faced with a plethora of developing-state challenges, including language, politics, funding, infrastructure, cultural diversity, religion, and literacy. These challenges require a well-thought-through and staggered approach based on the available time, as well as the level of engagement sought from the affected and interested stakeholders.

The relatively new concept of IOM requires a "trial-and-error" approach whereby the historical lack of previous experience is gradually eliminated. The international lessons and learning curve experienced by global maritime leaders such as the Canadians and the Australians pre-empted unnecessary obstacles and delays by establishing prerequisite IOM regimes. It is important to note that although both Canada and Australia as international world leaders in this emerging field have approached IOM in their own unique way, they share certain generic commonalities and experiences that might be useful in order to inform future IOM within a developing littoral context. The importance of ensuring a solid fundamental basis for the development of IOM, whether it is based on legislation or policy prescriptions, cannot be emphasised enough. The methodology applied will, of course, be influenced by political will, available financial support, and the environment in which it is set. Clear and focused objectives and processes should, however, accompany any legislative or policy-based initiatives to avoid possible confusion and conflict about objectives, purpose, or approach (Foster, Hawarda & Coffen-Smout, 2005; Taljaard, 2011).

As with any planning process, the IOM planning process commences with the delineation of how the planning area is defined and what the planning area consists of by means of a scientific assessment. As previously stated, the various aspects of socio-economics, culture, and ecology need to be assessed in order to determine these valued components. It is important from a good governance point of view to ensure that the socio-economic and ecological objectives are directly aligned with the valued components as this will create the incentive for stakeholders to take ownership of the planning process and not to delay the planning process unnecessarily.

Once the IOM objectives have been identified, the strategic plan needs to be drafted based on higher-level objectives and strategic guidelines. Prioritisation of these objectives will allow

decision makers and policy developers to determine the set pathway to follow in order to give effect to the set objectives. Critical to this planning process is ensuring that a risk assessment, such as the SEA process, as previously discussed, is conducted.

Once the risk assessment is completed and the threat analysis is available, then the process of deciding on the management measures can be finalised in order to ensure that monitoring and evaluation of the process support the expeditious completion of the planning process. The utility of IOM, as with any other planning process, is directly dependent on the inclusive approach when sensitising the affected and interested stakeholders and ensuring that all stakeholders are included in and informed of the progress made throughout the planning and development process. This is especially relevant when engaging developing states where knowledge, experience, and literacy levels vary considerably.

All ocean governance or blue economy initiatives are affected by the knowledge, experience, and political support provided by both the relevant government and the private sector. For the purposes of this dissertation, this needs to be further explored.

Scientific knowledge of the scope and frequency of harmful impacts caused by near-coast activities is less than complete, although there is a gradual increase in focusing on the coastal environment at a global level. It is therefore in the best interest of littoral states and private industry that protection is based on and further developed in terms of internationally accepted and inclusive ecosystem-based laws, agreements, principles, and norms that focus on acts that protect, conserve, and sustainably use marine resources (Ehler, 2006; Taljaard, 2011; Uffman-Kirsch, 2014). Uffman-Kirsch (2014) and Guénette and Alder (2007) further state that without political support and a statutory framework to enforce those expectations, any corresponding strategic plan and policy framework will result in only the normal ideas and intentions shared among stakeholders. It is an approach such as AIMS 2050, as an example from emerging countries, that reflects the perceived political will that might be the impetus for improved and sustainable use of the AMD.

From an emerging economy perspective, as experienced by developing littoral states, it is clear, based on the long-term objectives of AIMS 2050, that it was drafted and developed to provide an overarching framework for the protection and sustainable use of the natural resources in the AMD in order to improve the collective wealth of the affected citizens. The strategy developed is the result of the cross-cutting input from the following stakeholders:

- Academia;

- RECs;

- Regional mechanisms;

- AU member states; and

- Specialised organisations such as the Maritime Organization of West and Central Africa, African Port Management Associations, Union of African Shippers Council, maritime training Institutions, all MOUs on Port State Control, the UN, the IMO, the UN Conference on Trade and Development, the International Labour Organization, World Trade Organization, World Custom Organization, International Chamber of Commerce, Global Shippers Forum, International Hydrography Organization, and the private sector (AMCEN, 2017).

3.2.1 Regional maritime security supporting MPP frameworks

The key objectives of the AIMS 2050 marine protection strategy (see Table 3.1), as supported by a plethora of stakeholders, are to address/stabilise volatile competitiveness, aggravated by emerging and future maritime challenges/opportunities in the AMD, and to ultimately promote sustained international and regional security within littoral waters with emphasis on socio-economic stability and upliftment (Kelleher, 2019). The following are some of the AIMS 2050 objectives:

- Establish a combined exclusive maritime zone of Africa;

- Engage with civil society and all other stakeholders;

- Enhance political will;

- Ensure security and safety of maritime transportation systems;

- Minimise environmental damage;

- Prevent hostile and criminal acts at sea;

- Improve ICZM;

- Promote ratification and implementation of international legal instruments;

- Ensure synergies and coherence between sectoral policies and between RECs; and

- Protect the right of access to the sea (African Union, 2021).

An inference can be made that based on the AIMS 2050 objectives and action plans, specific emphasis is placed on factors such as natural resources, economic benefits, regulatory frameworks, capacity building, and maritime security, which inevitably represent the

framework and key performance areas that are critical for effectively implementing AIMS 2050.

The reader is reminded that the focus of this literature study is on the possible development of an NTMPPF for the navies of Namibia, South Africa, and Mozambique. The factors mentioned above are the very elements that constrain developing littoral states from achieving a sustainable blue economy. These constraints are exacerbated by the geo-political volatility that presents itself among developing littoral states as found by this study.

The different LMEs, such as those found in the AMD, being the Aghulas Somalia Current Large Marine Ecosystem and the Benguela Current Large Marine Ecosystem, concomitantly include the issue of resource geo-politics, especially among developing countries, due to the cross-political boundaries, as well as the vital and increasingly scarce marine resources they possess, and inherently represent various sources of conflict. It is therefore expected that with the deterioration/decrease of these marine resources in LMEs, and the scarcity thereof, so too does the potential for conflict increase (Taljaard, 2011; GEF, 2017).

Table 3.1: AIMS 2050 strategic objectives and action areas

AIMS Strategic Objectives
i. Establish a Combined Exclusive Maritime Zone of Africa (CEMZA)
ii. Engage civil society and all other stakeholders to improve awareness on maritime issues
iii. Enhance political will at community, national, regional and continental levels
iv. Enhance wealth creation, and regional and international trade performance through maritime-centric capacity and capability building
v. Ensure security and safety of maritime transportation systems
vi. Minimize environmental damage and expedite recovery from catastrophic events
vii. Prevent hostile and criminal acts at sea, and Coordinate/harmonize the prosecution of the offenders
viii. Protect populations, including AMD heritage, assets and critical infrastructure from maritime pollution and dumping of toxic and nuclear waste
ix. Improve Integrated Coastal Zone/Area Management in Africa
x. Promote the ratification, domestication and implementation of international legal instruments
xi. Ensure synergies and coherence between sectoral policies within and between the RECs/RMs
xii. Protect the right of access to sea and freedom of transit of goods for land-locked States.

Strategic Action Areas	
Natural resources Fisheries and Aquaculture Integrated Marine Tourism and Leisure Strategy for Africa Maritime Spatial Planning Giant Africa Aquariums Hydrography, Oceanography and Meteorology Environmental and Biodiversity Monitoring	**Maritime security** Piracy and Armed Robbery at Sea Maritime Terrorism Illegal Oil Bunkering/Crude Oil Theft Handling and Shipment of Hazardous Materials and Dangerous Goods Money Laundering, Illegal Arms and Drug Trafficking Human Trafficking, Human Smuggling and Asylum Seekers Travelling by Sea Environmental Crimes
Capacity and capability building Integrated maritime human resources strategy for the continent Outreach initiatives Representation in international institutions	**Legal and Regulatory Regimes** Maritime Boundaries/Delineation Maritime Governance Combined Exclusive Maritime Zone of Africa (CEMZA)
Ports and shipping Coordination on Maritime Safety and Security Regional Maritime Operational Centers Container Security and Control Programme Flag State and Port State Control Aids to Navigation Strategic Communications Systems Disaster Risk Management	Economic benefits: wealth creation Improved maritime trade and competitiveness

Source: Kelleher (2019)

Recent research also display critique that emphasised the issue of environmental security and resulting conflict versus overall human security that includes the concept of focusing on the intricate causal relationship between the environment and society (Yoffe *et al.*, 2004). The constant interplay or causal relationship between the environment and the respective citizenry can be seen as a continuum of source dependency that defines the nature of the existing relationship. The interplay between the environment and society necessitates the development of inclusive international/national resource policy frameworks and strategies in order to provide for and ensure the sustained use and protection of said marine resources to all affected parties.

3.2.2 Causal relationship between marine resource management and international marine policy initiatives

The causal relationship between marine resource management and declining marine resources gave rise to international initiatives such as UNEP. The establishment of UNEP was due to increased governmental and public concerns, and UNEP therefore initiated the RSP decades ago due to the observed "crisis of the seas". It reportedly originated with the

> outbreak of mercury poisoning in Minimata Bay, Japan, in 1959, followed by Rachel Carson's revelation of pesticide pollution through her 1962 publication '*Silent Spring*', and Garrett Hardin's publication of *The Tragedy of the Commons* in 1968, a once limitless resource – the world's seas – were suddenly seen as threatened by human activities (Ehler, 2006).

The creation of the RSP by UNEP explicitly addressed harmonising the sustainable utilisation of marine resources by means of management interventions. The overarching rationale of marine resource management is to address the mentioned "crisis of the seas"; thereby attempting to reach equilibrium between the sustainable usage of the resources available to support an LME and the maritime security requirements of affected parties in utilising values they have expressed as important. If the sustainability factor is the basis, then the management principles should give specific consideration to research and user knowledge of the resource, which should lead to the formulation of policies and regulatory frameworks pertaining to marine resource management (Arendse, 2003; Ehler, 2006). There seems to exist a distinct causal relationship between marine resource management and international marine policy initiatives such as the LME's referred to and the Blue Economy initiative.

Globally, governmental organisations and the private sector are concomitantly experiencing and exerting pressure on neighbouring littoral states, especially developing countries, to be more agreeable by showing due diligence when acting on the expectations of internal and external stakeholders in terms of the following:

- "Good governance.
- Accountability and transparency.
- Greater effectiveness.
- Delivery of tangible results" (Ehler, 2006).

As countries experience an increase in expectations from stakeholders in terms of improved overall governance and integrated marine management, there is also a demand for improved results-based monitoring and evaluation of policies, programmes, and projects (Kørnøv & Thissen, 2000; Arendse, 2003; Ehler, 2006). The result of visible, results-based monitoring and evaluation of policies and programmes will inherently create an increasing optimum environment for agreements to be established based on values such as due diligence and marine resources custodianship.

3.2.3   Regional marine agreements among littoral states

The basic concepts, as previously mentioned, of integrated marine management approaches and the RSP form the basis for the causal relationship between the marine environment and human society. It is supported by established MPA networks, which support the purpose of the RSP, namely "the preparation of regional agreements or conventions on the protection of specific bodies of water from pollution, particularly land-based sources" (UNEP, in Ehler, 2006).

Yu and Wu (2006) and Ehler (2006) stress the importance of the RSP by depicting the 150 "dead zones" across the globe (see Figure 3.3). It is clear that the majority of these marine areas had presented the affected countries with the opportunity to establish MPAs prior to the resulting state of ecological destruction. What is of importance is that the situation would have changed in terms of the various "dead zones" but that at the time of this study, no evidence was available to indicate the situation on the west and east coasts of Africa. The absence of data regarding the state of the littoral zones on the east and west coast of Africa therefore amplifies the need to for an IOM or RSP.

Figure 3.3: Location of 150 "dead zones"

Source: Yu and Wu (2006)

It is, among other factors, the progressive deterioration (see Figure 3.3) of these marine areas that compelled affected littoral states to adopt an integrated marine protection approach and promulgate various RSPs and LMEs; thereby possibly harmonising the causal relationship between the marine environment and humankind (see Figure 3.4) (Arendse, 2003; Ehlers, 2006). For this reason, the AU and subsequent RECs, such as the SADC with its littoral states, will also have to take cognisance of the impact of such "dead zones" and prevent the further deterioration of their current marine resources. At this point in time, the two LMEs, which consist of the ASCLME and BCLME, represent the baseline for further NTMPPFs. The increase of MPAs along the South African coastline in the midst of Operation Phakisa and all the various Industrial Development Zones that have been established over recent years are indicative of the mitigating measures promulgated by South Africa in an attempt to commit to a blue economy and arrest the declining health of the high seas.

Figure 3.4: Regional Seas Programmes (RSPs) and LMEs
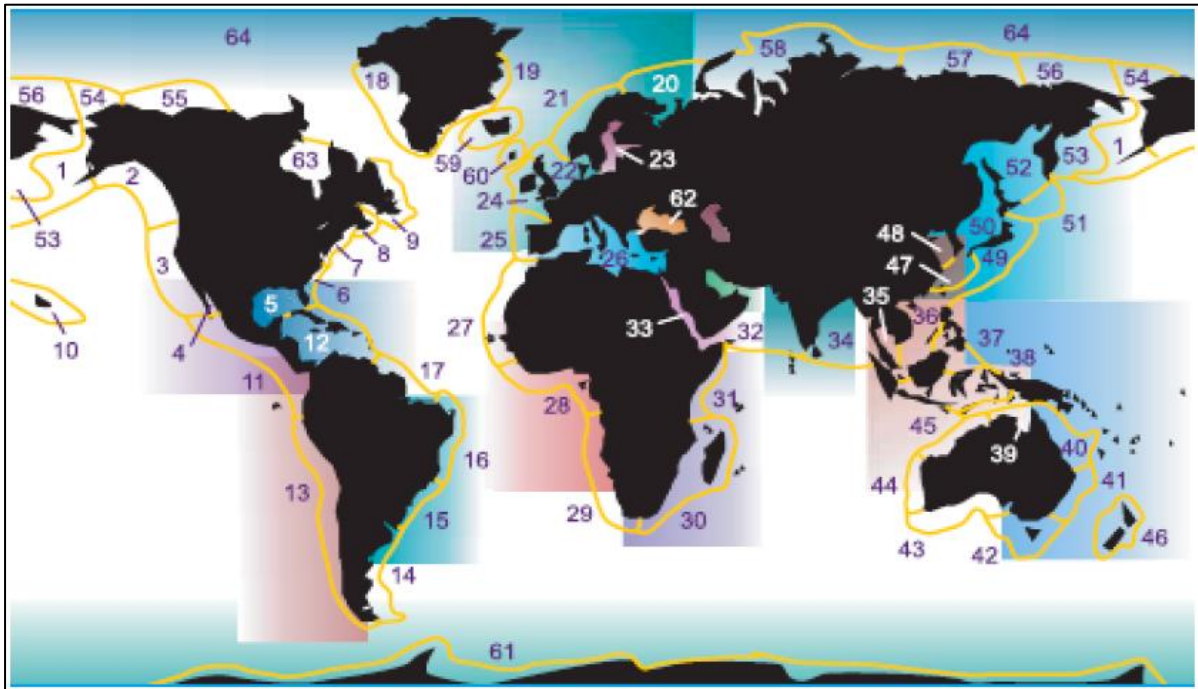
Source: Ehlers (2006)

Ehler (2006), supported by the research of Uffman-Kirsch (2014), supports the notion that the high seas are indicating declining health, and it is an accepted fact that all regional littoral governments are affected by it. According to Uffman-Kirsch (2014), the GOC – a collective consisting of former heads of state, business leaders, and scientific and economic advisors – has identified the following six main factors responsible for the decline:

- Rising demand for resources;
- Technological advances;
- Decline of fish stocks;
- Climate change;
- Biodiversity and habitat loss; and
- Weak high seas governance.

From the six factors above, it is clear what role governments with the support of private industry can play in providing a regulatory framework in terms of providing parameters for managing equitable marine resources use, monitoring technology as a utility within the marine industry, promoting research and development on the high seas in terms of climate change, as well as showing due diligence in managing and protecting marine biodiversity.

It is, however, important to note that the following maritime boundaries (see Table 3.2) have been established in the WIO, although no boundaries have been established for the Atlantic Ocean:

- Comoros/Mozambique;
- Comoros/Tanzania;
- Mozambique / South Africa; and
- Madagascar/Mozambique (Kelleher, 2019).

Table 3.2: Maritime boundaries agreed upon in the Western Indian Ocean (WIO)

Parties	Date	Agreement
Kenya/ Tanzania	17 Dec 1975 to 9 Jul 1976	Exchange of Notes between the United Republic of Tanzania and Kenya concerning the Delimitation of the Territorial Waters Boundary between the two States, 17 December 1975 – 9 July 1976
Mozambique / Tanzania	28-Dec-88	Agreement between the Government of the United Republic of Tanzania and the Government of the People's Republic of Mozambique regarding the Tanzania / Mozambique Boundary
France/ Seychelles	19-Feb-01	Agreement between the Government of the French Republic and the Government of the Republic of Seychelles concerning Delimitation of the Maritime Boundary of the Exclusive Economic Zone and the Continental Shelf of France and of Seychelles
Seychelles/ Tanzania	23-Jan-02	Agreement between the Government of the United Republic of Tanzania and the Government of the Republic of Seychelles on the Delimitation of the Maritime Boundary of the Exclusive Economic Zone and Continental Shelf
France/ Madagascar	14-Apr-05	Agreement between the Government of the French Republic and the Government of the Republic of Madagascar concerning the delimitation of maritime spaces located between the Reunion Island and Madagascar
Mauritius/ Seychelles	29-Jul-08	Agreement between the Government of the Republic of Mauritius and the Government of the Republic of Seychelles on the Delimitation of the Exclusive Economic Zone between the Two States
Kenya/ Tanzania	23-Jun-09	Agreement between the United Republic of Tanzania and the Republic of Kenya on the delimitation of the maritime boundary of the exclusive economic zone and the continental shelf (with map)

Source: Kelleher (2019)

Maritime security is furthermore another aspect of maritime boundaries that needs to be addressed should maritime boundaries be agreed upon at the political level. The Lomé Charter that represents the African Charter on Maritime Security, Safety and Development in Africa was adopted by 30 AU member states at a summit in 2016 (Kelleher, 2019). The main aim of the Lomé Charter "is to create legally binding obligations for signatories. All WIO countries except South Africa have signed the Charter. None have ratified the Charter (as of 8 January 2018). Several elements of AIMS 2050 have been reflected in the Lomé Charter" (Kelleher, 2019). It is evident that although governments generally commit to protocols and charters, they

do not necessarily address the decline in marine resources, except if the type of governance exercised is improved in a cross-sectoral and sustainable manner.

The integration of MPPs and marine protection strategies, together with the security utility that the navies in this study represent, possess, and are mandated by their respective governments, suggests that littoral states have both an obligation and an opportunity to consider the merging of the respective regulatory frameworks. This will promote a position where the security utility can be applied in support of the social programmes that littoral states critically need in their drive towards economic stability and growth. The plurality that exists in the utility of navies in support of their governments requires far less than might be expected from a citizenry point of view. The focus needs to be on improved ocean governance by means of a more multi-professional and multi-disciplinary approach where navies are not presented as conventional "war-fighting" entities, but rather as the protectors of the oceans, in support of national and regional socio-economic stability. By committing to a phased integration of policies, the result will be improved ocean governance, improved interoperability, and improved capacity building and training.

3.3   NEO-REGIONAL OCEAN GOVERNANCE AS A BLUE ECONOMY FACTOR IMPERATIVE

The importance of neo-regional ocean governance as an instrument of littoral states and their mandate to facilitate and promote collective action towards custodianship of the national and regional maritime domain requires further scrutiny. This approach is supported by Paavola (2006), where autonomy is accepted by all stakeholders involved in the blue economy. The current weak economic conditions in Africa and more so in the SADC underline the ignorance of the value that the coastal zones and EEZs hold for littoral states with an emerging economy. It is evident that the six previously mentioned factors in Section 3.2.3 are responsible for a steady decline in marine resources and that, in combination with poor governance, it exacerbates to a large extent security/economic instability. Various researchers support the notion that unsustainable use of marine resources and poor regulatory enforcement are prevalent among littoral states in general, and more so among developing economies that depend on their marine resources for national security and stability (Ehler, 2006; Taljaard, 2011; GEF, 2017).

Uffman-Kirsch (2014) and Kørnøv and Thissen (2000) found that 36% of the world's oceans lay within the sovereign territory and governance of coastal nation states. It is a known fact and was previously referred to that the high seas are not demarcated with physical boundaries or barriers and are therefore not governed under the various political regimes. The result is that all negative marine impacts in a certain maritime space will have varying degrees of effects or ramifications in others. It is important yet alarming to note what the International Law Commission commented in its Articles on Prevention of Transboundary Harm:

> The ecological unity of the planet does not correspond to political boundaries. In carrying out lawful activities within their own territories, states have impacts on each other. These mutual impacts, so long as they have not reached the level of 'significant', are considered tolerable (UN, 2019).

The abovementioned research suggests that various perceptions and interpretations exist of the level of risk tolerance accepted by affected littoral states when discussing the sustainability of available marine resources. These perceptions are more often predetermined by the geo-political and socio-political status in combination with the economic welfare of the relevant country.

The sustainable development and management of the regional seas are therefore directly impacted upon by the combination of the following three reoccurring problems, in no particular order of priority:

- Ecological problems;
- Economic problems; and
- Social problems.

The tripartite relationship is intrinsically linked based on the ecological and anthropological basis that defines all states irrespective of the level of development in any given country. The positive linkage between the three factors, however, remains a challenge.

3.3.1 Inclusivity as a governance imperative for neo-regional transboundary marine protection policy frameworks (NTMPPFs)

Should continuity be a priority, the tripartite interaction between the three respective factors has yet to be successfully integrated in an inclusive manner and on a continuous basis by littoral states across borders and more specifically in Africa. A more sustained approach to maintain

this tripartite causal relationship between these three factors is postulated to be the preferred management approach. The possible review and improvement of archaic MPP frameworks towards inclusivity, together with management strategies such as RSPs, as well as phased capital investments to ensure that objectives are reached, might be the catalyst that will change the MPP frameworks of governments, the business sector, and all other stakeholders involved (Ehlers, 2006; UNEP, 2010). The more inclusive that marine protection regional agreements and policy frameworks are, the higher the probability that they will receive the prerequisite political, socio-economic, and academic support.

UNEP launched the RSP two years after the Stockholm Conference that took place in 1972, with the main aim to address the accelerating decline of the world's oceans and coastal areas. The RSP has proven 30 years after its launch to be "one of the most comprehensive global initiatives for the protection of marine and coastal environments, covering 18 regional seas of the world's oceans through the participation of more than 140 countries" (UNEP, 2010).

Ehler (2006) found that, since the launching of the RSP, the various changes in the "political, scientific, developmental and socio-economic global framework" necessitated an elaborate review of the RSP to not only "enhance and revitalize, but also [to] align it with recent international developments".

According to Ehler (2006), the following six elements are required for a successful RSP:

- "**Political will** and commitment of the member governments to support and strive for the objectives and goals of the regional convention and action plan;
- A **solid financial base**, to provide the resources for the implementation of the convention and action plan effectively and with the desired results, and an effective mechanism for 'resources mobilization' of funds, external to the regional Trust Fund, including the skills to develop successful project proposals for funding agencies, potential donors, and partners;
- A **solid legal base** comprising the convention and supportive protocols requiring the member states to meet their responsibilities and obligations;
- A sound and **effective institutional structure** and internal organization of the action plan, that will allow a smooth and efficient implementation of activities and projects decided upon by the member states;

- A **sound, realistic and practical Programme of Work** for the regional implementation of global initiatives, programmes, conventions and activities; and

- A strong and **efficient secretariat** with adequate human resources in policy, scientific, technical, and administrative areas, with consistently good leadership, mixing political vision with good management skill" (Ehler, 2006).

It can therefore be postulated that an MPP framework requires the provision of a governmental or organisational architecture that:

- supports the political will;

- is properly funded;

- is based on well-researched regulatory frameworks;

- is positioned in a relatively effective organisational structure such as the SADC; and

- has a clear vision of what programmes need to be initiated and must be administered by an efficient secretariat.

The probability of an organisation such as the SADC to engage in an RSP requires a pragmatic and realistic approach within the current AMD and more specifically given the historic impacts that have hampered South Africa, Namibia, and Mozambique over time. Mee (in Ehler, 2006) supported by Walker (2020) further postulates that the following constraints impact very significantly on the continued development of the RSP:

- "**The Voluntary Nature of Funding.** Because of limited resources, UNEP can only contribute to the start-up phase of individual RS [regional seas] programmes; individual Member States are expected to fund the costs of programme activities. Most of the Action Plans are funded through 'Trust Funds', usually with agreed scales of contributions by the participating Member States. The irregular, partial or absent payments by countries remain a challenge in most regions.

- **Competition across UNEP Programmes.** UNEP is not alone in developing a programme for the marine environment. Major global and regional players [include] regional fisheries management organizations, the IMO and the Intergovernmental Oceanographic Commission (IOC) of UNESCO. Other global marine environmental programmes include the World Meteorological Organization (WMO), the International Atomic Energy Agency (IAEA), especially its Marine Environmental Laboratory, the World Health Organization (WHO), and the UN Industrial Development Organization

(UNIDO). Despite some successful and ongoing attempts at coordination through bodies such as the ACC (Administrative Committee on Coordination) under the UN and others, many parallel and competing activities persist.

- **Insufficient Stakeholder Awareness and Involvement.** In many cases the debate on the Action Plans and conventions was limited to the environmental sector with little or no engagement of other sectors, NGOs [non-governmental organisations], the public media, and local authorities. This has been corrected in some instances (such as the Mediterranean Commission on Sustainable Development), but in most cases this failure has contributed to the difficulties in maintaining political momentum.

- **Limited Country Capacity and/or 'Buy-in'.** Implementation of the Action Plans and compliance with the provisions of the conventions require the engagement of national institutions (e.g. for implementation and long-term monitoring). This work is often limited by insufficient equipment, supplies and trained personnel. In some RSP[s] governments were unwilling or unable to sustain operations.

- **Political Boundaries.** The boundaries of the RSP were chosen with a great deal of political pragmatism as well as oceanographic considerations. The boundaries did not generally include landlocked countries in the drainage areas (e.g., the Black Sea) or, in some cases, areas beyond the continental shelf. The design was conceptually sound, but focussed on preventing or mitigating pollution, rather than the wider integrated 'ecosystem' approach that was to emerge from Agenda 21 (Vallega, 2002).

- **Inability to Tackle Ecosystem Management.** Most of the Regional Seas programmes have focussed on land-based sources of pollution (now widened to land-based activities). However, most regions also suffer from chronic over-fishing, destructive fishing practices, the invasion of opportunistic species, habitat loss, and other issues of living marine resources. Fisheries issues continue to be absent from most regional conventions; from a management perspective, fish do not appear to live in the same sea as pollutants. If RSP Conventions and Action Plans for Africa (Walker, 2020) plan to tackle the problem of marine biodiversity conservation, as many appear to be doing, they will have to take on fisheries issues; and

- **Competing Regional Agendas.** The global problem outlined above was often mirrored at the regional level, especially with the arrival of GEF project funding for international waters projects not directly related to the Regional Seas mechanism in regions such as Africa and Latin America" (Mee, in Ehler, 2006).

These constraints might be mitigated if the policy stakeholder process of engaging the various entities is planned and implemented according to a transparent, timeous, and structured framework. Based on the current geo-political and socio-economic circumstances, the researcher expects that the constraints as postulated by Mee (in Ehler, 2006) might also be experienced in the developing littoral context of the SADC, especially among South Africa, Namibia, and Mozambique. It is an accepted fact that the majority of RSPs commence in very modest ways, with limited financing and a plethora of regional stakeholders (Ehler, 2006; UNEP, 2010; Taljaard, 2011; GEF, 2017). It is in this context that the time-consuming attempts at formulating regional arrangements, as well as the elaborate and continuous discussions that precede tangible agreements, result in constrained success and finalisation of these RSPs.

Once these issues have been resolved, the probability of a successful RSP will increase and should be more successful in reaching the set objectives. The point in case where RSPs have benefited most is where there is a heightened demand by the public for the government to establish more policies on marine protection. It might occur that no real significant progress can be made in dealing with the identified problem statement. The option here is to focus more on the problem-solving capacity and not on the actual problem. If the participants understand the programme as a series of events,

> particularly those identified in the initial stages, then agreement exists that it is not only what must be evaluated in terms of whatever substantive commitments it produces, but also in terms of the contribution it makes to building capacity to act and a platform for subsequent improvement (Ehler, 2006).

In the longer-term perspective, the latter may well be more important than the former. "The point is simply that capacity-building measures can be important means of achieving substantive results further down the road. When institutional capacity is weak and progress on substantive measures slow and meagre, decision makers may well be advised to focus much of their energy in the initial stages on capacity-building measures" (Paavola, 2006).

It is important to note that, from a regional perspective, there is inherently a distinctive divide in terms of regional characteristics such as cultural, economic, and political characteristics. It is therefore logical that regional agreements and management strategies must be altered in order to accommodate local and regional conditions (Ehler, 2006). Increasingly, within the SADC context, it is observed that both the heterogeneous complexity of society and the accompanying volatility within political parties will affect the progress envisaged for proposed policy

initiatives. It is in the best interest of all stakeholders, from a governance and geo-political perspective, to clarify the common interests pertaining to valuable environmental resources such as the marine environment in order to create a favourable foundation for international, regional, and national agreements.

Historically, littoral states have always had the right, as codified under UNCLOS, to activities including the freedom to "fish, navigate, overfly, lay cables and pipelines, construct artificial platforms, and conduct marine-scientific research" (Ardron, Gjerbe, Pullen & Tilot, 2008).

It is a fact that not all countries completely implemented UNCLOS's reciprocal duties in terms of:

- protecting and preserving the marine environment;
- protecting and preserving rare and fragile ecosystems, as well as vulnerable species;
- conserving high seas marine resources;
- preventing pollution and controlling the behaviour of their nationals and vessels; and
- proving their commitment to the general obligation of cooperating towards the achievement of the abovementioned objectives (Ardron *et al.*, 2008; Walker, 2020).

It is further important to note that even though, under both UNCLOS and the CBD, states are bound to prevent harm to the marine environment and biodiversity beyond their national jurisdiction, few states have initiated the process of developing systems or mechanisms to identify possible destructive activities in their sovereign marine environment (Ardron *et al*., 2008).

The expectation and regional obligation for regional cooperation and coordination, i.e., RSPs, were already globally acknowledged in 2002 with the issues concerning degradation of the marine environment and coastal ecosystems from fisheries, biodiversity loss, and pollution raised by the World Summit on Sustainable Development. In the following year of 2003, the UNEP Governing Council attempted to provide sustainable development instruments that would support a global strategy for the RSP based on the idea of the Regional Seas Conventions and Action Plans. These instruments served as a basis "for the regional implementation of multilateral environmental agreements and global programmes related to the marine and coastal environment" (Ehler, 2006).

3.3.2   Regional approaches to improve coastal and ocean governance

The consideration that might be given to use Regional Seas Conventions and Action Plans as a possible strategy for implementing ICZM as a tool does not present itself as a panacea due to the fact that various stakeholders, each with different perceptions and visions of marine sustainability, are involved in an integrated management framework. Synergy and commitment by all these stakeholders therefore form the basis for any attempt at successful ICZM among entities such as sovereign nations (Swart & Van der Windt, in Weinstein *et al.*, 2007). The reality of attempting to plan for the implementation of ICZM can be superimposed within the SADC context where the general awareness of and overall support for a blue economy still have to be given further momentum in order to be successful. Attempts at implementing ICZM can be found with the progress made by South Africa with the ratification of MPAs around its coastline.

The distribution and area covered by the MPAs (see Figure 3.5) in South Africa are indicative of the commitment and urgency that the South African government is acknowledging. The support is also aligned with the regional contribution that South Africa is involved in as part of its SADC involvement and commitment. The commitment to MPA's can also be found in other parts of the world (Guénette & Alder, 2007).

The evidence collected on the BCLME and the ASCLME, in combination with the MPAs of South Africa, allows for extensive meta-data pertaining to ecological studies to be used as possible SEA baselines, as well as a contribution to the ocean governance research conducted in both the SADC and the rest of the AU. The political, economic, and environmental best practices in the Industrial Development Zones of Saldanha, Cape Town, Port Elizabeth, and Durban could provide the impetus that the other littoral states in the SADC seek in order to gain political, economic, and environmental stakeholder support when planning and implementing ICZM. It is, however, the varying degrees of economic and political stability among developing states that need to be considered and planned for in terms of ICZM. The importance of promulgating MPAs can, however, not be refuted.

Figure 3.5: Marine protected areas (MPAs) of South Africa
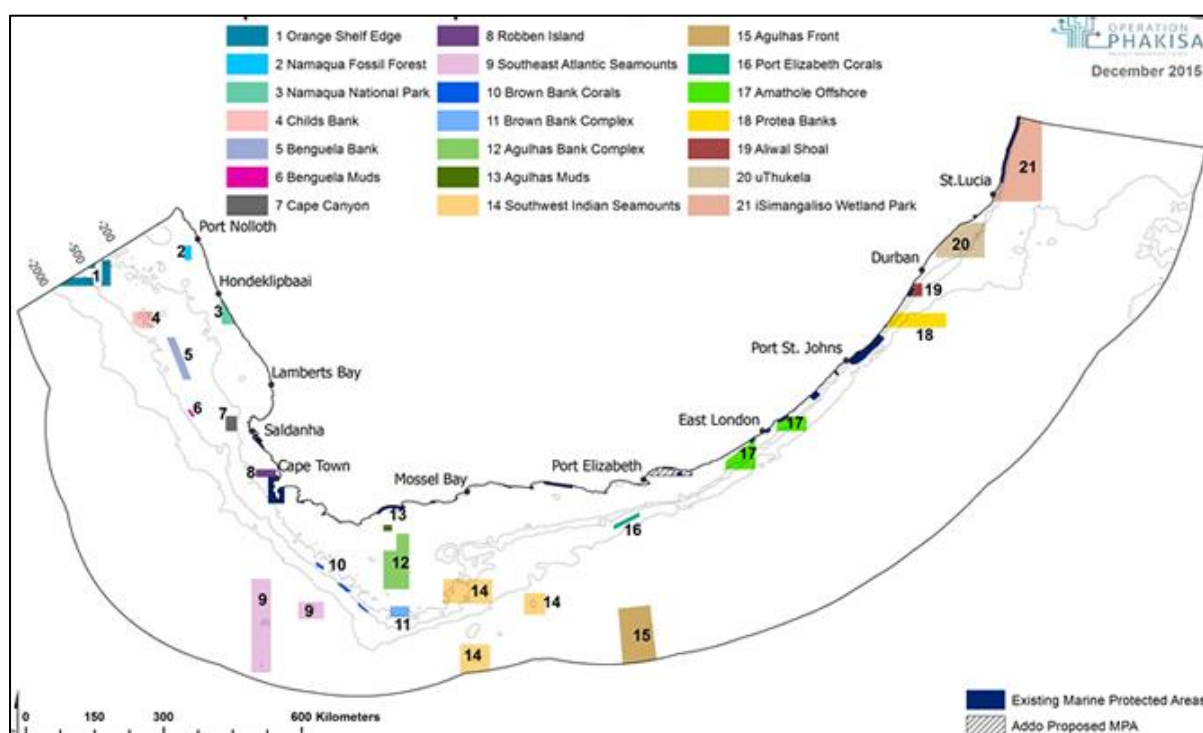
Source: RSA: Department of Environmental Affairs (2016)

MPAs are increasingly becoming a worldwide phenomenon, according to Guénette and Alder (2007). This includes recommendations as made by the Scottish government to include using ICZM "to establish coastal and marine parks" (Stead & McGlashan, in Guénette & Alder, 2007). Further evidence can be found in Indonesia where a requirement has been voiced to establish an integrated natural resources management law that includes protection of natural resources, including coral reefs (Dirhamsyah, in Guénette & Alder, 2007). Rufiji-Mafia-Kilwa in Tanzania is an example of a MPA national programme initiative in Africa.

Of importance is how numerous international conventions, national programmes, and scientific reports have highlighted the need to consider the interplay between different exploitation and use activities and their effects on the marine environment. Based on the emergence of this kind of interplay, governments from across the globe have indicated strong political will to adopt programmes that will promote the establishment of "integrated ocean policies" (Markus *et al.*, 2011).

Markus *et al.* (2011) argue that based on the various failed attempts by countries across the world to follow a sector-by-sector approach to resolve conflicts, it is preferable to "adopt holistic policies that allow for a comprehensive and coordinated governance of the different activities and interests related to the seas".

These attempts include:

- the National Maritime Policy launched by Brazil in the 1990s, followed by Australia and Canada with their own national maritime policies;
- the Japanese government promulgated the Basic Act on Ocean Policy in the new millennium;
- a Maritime Strategy was initiated by the Norwegian government; and
- the USA established a Committee on Oceans Policy.

The adoption of a more holistic approach is found in the EU, which chose to adopt the international trend of an integrated approach to ocean governance with its development of an "Integrated Maritime Policy" (Markus *et al*., 2011).

Markus *et al*. (2011) and Taljaard (2011) further found that there still appears to be inadequacy from a legal perspective on international, EU, and national levels to find a solution for use and conservation conflicts in EU waters. The main reasons for this are the following:

- There seem to be significant knowledge shortages regarding the state of the oceans and the effects of anthropogenic pressures. Furthermore, a perception exists that monitoring and evaluation programmes are incomprehensive and uncoordinated.
- The statutory and strategic frameworks set to govern marine environmental conservation were found to be fraught with inconsistencies and lacking overall coordination.
- At a national level, evidence of a lack of coordination perpetuates itself as on the international level, although coastal states are more prone to develop spatial and sectoral planning instruments for their territorial seas and EEZs. The lack of coordination, however, presents itself in the form of the various neighbouring states that do not consult with one another in terms a more neo-regional approach.
- Furthermore, the conservation measures that were developed tend to limit the scope of marine conflicts and thereby make allowance for a limited level of protection of the marine environment.

Kay and Alder (in Guénette & Alder, 2007) postulate that

> from a premise based on the fact that although the processes for establishment and management of MPAs and Integrated Management (IM) are similar, the outcomes are different. They argue that whereas MPAs are primarily focussed on conservation

attempts and at times embedded in integrated coastal management to help meet conservation objectives, IM tends to target social and economic development as well as conservation.

At the international level, littoral states over recent years have increasingly acknowledged the requirement to make allowance for the interface between the various exploitation and use activities and their impacts on the oceans. This tendency is even more prevalent among certain littoral states based on the political will to establish "integrated ocean policies" that promote heightened awareness of a more coordinated governance approach to the various activities and interests related to the oceans (Markus *et al.*, 2011). From an emerging littoral state point of view, this phenomenon is visible among the SADC states that are studied in this dissertation. The evidence provided thus far supports the fact that the SADC, as a region within the AMD, is increasing its focus on the importance of a blue economy and how industrial development and utilisation of ocean resources need to be brought into equilibrium based on the principles of sustainability and ocean custodianship.

Laursen (in Park, 2006) states that "the dependent variable of regional integration lies in the measurement of an integrative process with reference to three dimensions:

- Geo-political scope;
- Institutional capacity; and
- Normative awareness".

The geo-political mandate of the SADC, according to the researcher, in combination with the institutional capacity of South Africa, supported by Namibia and Mozambique, should heighten the normative marine protection awareness of its citizenry if an NTMPPF is considered. The monitoring and measurement of progress for such a regional MPP initiative could present numerous benefits to its citizenry, its economy, and the marine environment, if conducted in a scientific context but monitored and evaluated by an agreed-upon multi-disciplinary regional body. This will also support the notion of bringing governance and science together for improved future regional synergy. The reality is that each of the emerging littoral states in this study is faced with national and regional dichotomies based on resource shortages, border disputes, and political volatility.

Park (2006) argues that a country that is faced with a regional dichotomy is Japan, whose regional policy "has been conditioned by the inherent contradiction in promoting East Asian regional integration among:

- security bilateralism;
- economic globalism; and
- cultural regionalism".

In simplified terms, this means that

> Japan still remains associated with both the maintenance of the bilateral security treaty with the USA and continues to participate in global economic regimes like the World Trade Organization (WTO) and the International Monetary Fund (IMF), while at the same time promoting cultural regional awareness in East Asia ... It is thus obvious that questions could be raised whether Japan has either 'reluctant' or 'proactive' intent in terms of increased diplomatic activities and regional leadership roles when addressing achievement of Japanese national objectives. Based on a perspective of a 'reluctant state', it would appear that Japanese policymakers, in their decision-making process, are more inclined to be influenced by the role of foreign pressure, as well as domestic pressure (Park, 2006).

Agreements are therefore seen to be communicated as a prerequisite for further economic growth and not initiated voluntary. The impact of regional pressures such as the RECs found within the AU, and more specifically the economic pressures exerted in the SADC in South Africa, Namibia, and Mozambique, also has a dichotomy between a "reluctant state" and "proactive" intent. Policymakers in these three littoral states are at varying levels of having to develop policy in support of socio-economic stability and growth but at the same time having to succumb to international pressures when trading in natural resources such as fossil fuels and minerals. The marine spatial extent and subsequent influence of the African coastline on the economies of littoral states and the ability of these states to ensure maritime security within the respective EEZs are complicated by regional and foreign pressures.

Park (2006) states that the concept of neo-regionalism is the way that inter-regional agreements through structured collaboration are reached. The focus is on the synergy that different sub-national or cross-national entities share or have agreed on. There seems to be an increase in the number of neo-regional regimes that have been established over recent years, and that the integration seems to continue based on the relative successes.

It is important to be reminded of the willingness displayed by the member states of the SMC and ISDSC within the SADC and, based on their willingness to be signatories to the Djibouti Code of Conduct, to further explore neo-regional opportunities for improved oceans economy and maritime stability within the respective EEZs of specifically South Africa, Namibia, and Mozambique. The political will and intent therefore need to be very clear for any neo-regional agreement to come to fruition.

3.3.3   Political stability as a key consideration for littoral marine protection synergy

An important factor to consider is a stable political environment when assessing the synergy of littoral states and their maritime boundaries. According to UNCLOS, a coastal state may claim a territorial sea zone of 12 nm, a contiguous zone of 24 nm, an EEZ of 200 nm, and a continental shelf of 200 nm. A typical example of where the stability of maritime boundaries comes to play can be found on the island of Jabal al-Tahir, situated halfway between Yemen and Eritrea, northwest of the Bab al-Mandeb passage at the mouth of the Red Sea. An arbitral tribunal reached the conclusion that the island belonged to Yemen (Lisztwan, 2012). This entitled the country to claim the surrounding maritime zones. This meant that the maritime boundary with Eritrea was delimited. It was, however, short-lived as the volcano that created Jabal al-Tahir erupted and collapsed the western side of the island. Inevitably, this changed the boundary situation for Yemen (Lisztwan, 2012).

UNCLOS has not taken a standpoint "on whether baselines, and therefore maritime zones, shift with the coastline – whether they are ambulatory" (Lisztwan, 2012). This creates uncertainty in the law of the sea, as well as the political regime of the nation and the respective region. For littoral states it means that, financially, the exploitable offshore hydrocarbons, commercially usable minerals in unconsolidated sediments, and the importance of these zones in terms of navigational, scientific, and jurisdictional rights are compromised and might be seized by a bordering country (Lisztwan, 2012).

Historically, the industrialisation of the maritime environment encompassed various sectors, such as:

- fisheries;
- maritime transport;
- communications;
- oil and gas;

- exploitation of marine living resources;
- marine recreation; and
- coastal engineering.

These sectors have been supplemented by new industries such as renewable energy and initiatives such as nature conservation, which compelled decision makers to acknowledge and react to the requirement to develop and implement an integrated and more rational use of ocean space. The overarching cause for a new integrated approach was mainly due to the escalation in interactive pressures. These pressures were more than often incompatible demands for ocean space, which have forced countries and their systems to face complex, multi-sectoral issues (Douvere & Ehler, 2009). All economic regions such as the SADC are both implicitly and explicitly affected by cross-sectoral industries under stress. Economies and politics are directly connected in terms of their influence on each other. In the same way, the tripartite relationships between politics, environmental concerns, and economic factors are interrelated. Any change or new development will therefore gradually manifest in the various sectors and present governments with new dynamics to consider.

The escalation in industrial research and development in the energy sector on the open seas observed by the researcher in recent years in the SADC is testimony to the worldwide trend. This trend requires the SADC to assess and review its geo-political and geo-strategic position in terms of ocean governance and more specifically transboundary policy frameworks based on the inclusivity that the SADC is moving towards as part of AIMS 2050 and Agenda 2063. Neo-regional agreements are possibly the approach that the SADC might have to opt for based on the global competitiveness that compels emerging littoral states to leverage their combined marine resources.

Various nations have started to define and negotiate their boundaries due to developments in the international law of the sea. Based on the stipulations of UNCLOS (Articles 2, 3, and 5), territorial waters may reach a limit of up to 12 nm away from the coast as measured from baselines that, in general, are representations of the low watermark. Furthermore, a country may lay claim to an EEZ beyond and adjacent to the territorial sea extending up to 200 nm from the baselines used to establish the territorial sea. According to UNCLOS, a littoral state has sovereign rights in the EEZ to "explore and exploit, conserve and manage the natural resources and conduct other activities for the economic exploitation and exploration of the zone" (Barry *et al*., 2003).

Although the marine cadastre is an area of research for many countries, a country such as the Netherlands is extremely aware of the ocean activities of its neighbours and the impact it has on the Dutch economy. The Netherlands has sovereignty over a very minute area of the North Sea and this area is surrounded by England, Belgium, and Germany. Historically, it is also a fact that "competition for rights and access to the Netherlands' North Sea has been intense" (Calcott & Petkov, 2012).

It is a common phenomenon for littoral states to have been allocated ocean space. The more prevalent of these allocated spaces are "concession zones for:

- resource exploitation (offshore oil and gas and development areas);
- designation of dumping sites;
- delineation of shipping routes and traffic separation schemes; and
- the designation of areas for nature protection" (Calcott & Petkov, 2012).

Generally, these allocated ocean spaces are symptomatic of international and regional agreements. Globally, UNCLOS forms the basis for the agreed-upon international framework that allocates ocean space to countries by means of "the codification of concepts such as the territorial sea of 12 nm, the EEZ of 200 nm, the contiguous zone, the continental shelf, and the high seas" (Calcott & Petkov, 2012). Similar frameworks include agreements on the delineation of special areas for the prevention of sea pollution introduced by the IMO. The internationally accepted methodology for the coordination of transboundary pollution abatement is to initiate an Integrated Environmental Agreement that makes provision for joining the agreement, as well as for members to mitigate emissions (Taljaard, 2011; Calcott & Petkov, 2012). The importance of sound political relations among littoral states is both an ecological and economic imperative that forms the basis for continued littoral synergy.

From an ecosystem-based marine spatial management perspective, the biggest challenge lies in the fact that the "designation of areas for both economic activities and nature protection is done on a single-sector basis" (Douvere & Ehler, 2009). The international norm is that the approach followed by the various sectors is to have a "plan-based approach" and does not consider the policy frameworks or "plans of other sectors or conservation requirements that may be conflicting or incompatible" (Douvere & Ehler, 2009).

It is important to note that as littoral states establish networks of MPAs as another solution to individual marine protection sites, the governance of ocean spaces external to the protected

area becomes increasingly a strategic imperative as it overlaps in reality and requires patrolling or constabulary presence. It is also observed that the establishment of boundaries such as with ICM, for management and planning efforts, is more than often done on political deliberations and did not originate from an ecological perspective (Douvere & Ehler, 2009; Taljaard, 2011). The integration and multi-functional management of these protected areas therefore require a cross-sectoral approach and not strictly single-sector involvement. The archaic approach, according to the researcher, of managing and exercising control through ICM over littoral marine spaces by a single body, has resulted in fragmentation and a disjointed management system that does not allow for inclusivity and collective custodianship.

The two most frequently definitions of ICM are as follows:

> ICM is a process by which rational decisions are made concerning the conservation and sustainable use of coastal and ocean resources and space. The process is designed to overcome the fragmentation inherent in single-sector management approaches (fishing operations, oil and gas development, etc.), in the splits in jurisdiction among different levels of government, and in the land-water interface (Christie *et al*., 2005).

> ICM is a broad and dynamic process that requires the active and sustained involvement of the interested public and many stakeholders with interests in how coastal resources are allocated and conflicts are mediated. The ICM process provides a means by which concerns at local, regional and national levels are discussed and future directions are negotiated (Christie *et al*., 2005).

The abovementioned definitions clearly highlight specific characteristics of the ICM process, such as:

- Concomitantly, ICM both balances development and conservation, thereby promoting multi-sectoral planning, as well as interaction and arbitrating conflict towards possible mediation. The main aim of ICM is to promote an optimum environment for "a sustained effort whose fundamental goal is to reform the objectives, structure and processes of governance that control how coastal resources are allocated" (Christie *et al*., 2005).
- ICM utilises a range of "tools", including MPAs, land-use control, marine zoning and permit systems, conflict resolution, planning, and fisheries management.

It is postulated by Christie *et al.* (2005) that ICM requires distinct integration within and between multiple governance levels. Christie *et al.* (2005) found that "institutional and legal frameworks that mandate governance reform are lagging behind the pace of ICM project evolution – to the point that sustained progress is being undermined". It is observed that when statutory frameworks and policies are drafted at national level, there is often a lack of synergy between and support of lower-level management efforts.

It is globally recognised that foreign-funded projects are generally the only way of implementing ICM in developing countries. There is therefore the downside that these projects are critically dependent on foreign financial and technical expertise, which lends itself to not being sustainable and leads to imploding institutions and policies as "projects are terminated and support staff and funding are withdrawn" (Christie *et al.*, 2005).

Figure 3.6 depicts the progressively expansive nature of ICM (Christie *et al.*, 2005).

Figure 3.6: Generalised integrated coastal management (ICM) steps
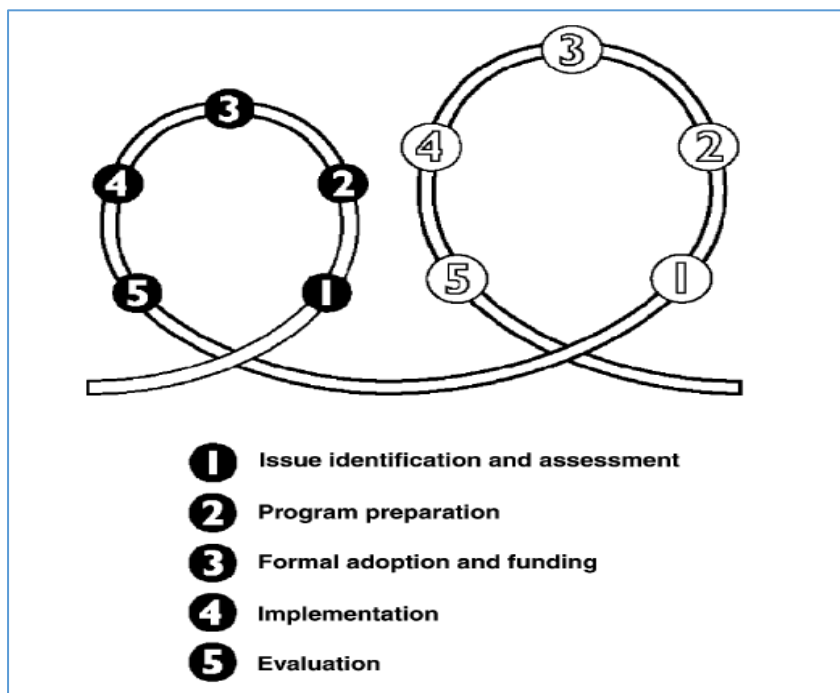
Source: Christie *et al.* (2005)

Ultimately, it is commonly observed that ICM processes rarely go through multiple cycles (see Figure 3.6). This is also a probability that needs to be recognised in the context of the emerging littoral states of South Africa, Namibia, and Mozambique, as these developing economies are also partly dependent of foreign direct investment from a regional perspective, should ICM as a supporting role be envisaged for the three navies.

The cyclical nature of ICM, as previously depicted, allows for a progressive improvement impetus to be achieved as the various policy frameworks become more aligned, and the level of governance increasingly supports the extent of capacity building and training to increase. The collective approach to a more holistic and integrated approach among the littoral states and navies, for the purposes of this study, allows for improved interoperability among the naval forces.

According to Douvere and Ehler (2009),

> marine spatial management aims to provide a mechanism for a strategic and integrated plan-based approach for marine management that makes it possible to look at the 'bigger picture' and to manage current and potentially conflicting uses to reduce the cumulative effects of human activities, and to deliver marine protection.

Ehler (2006) argues that there is overwhelming evidence in support of developing MSP at the RSP level. Each regional MSP could:

- "Identify community and sectoral interests (stakeholder analysis);
- Identify the distribution of ocean resources in space and time and future economic opportunities;
- Identify priorities for industry and economic development of the region;
- Identify current and emerging threats to ecosystem health and determine planning and management responses to those threats;
- Within the region, set out what is known of ecosystem characteristics and a broad set of objectives for conservation of the natural system and its processes;
- Identify the requirements and priorities for environmental baseline and basic biological inventory and other surveys in the development of regional sea use management plans;
- Identify priorities and implement measures to meet conservation requirements and determine those areas that should be evaluated for marine protected area status;
- Implement a planning regime to prevent conflicts between different sectors over resource access and allocation;
- Provide a framework within which there is increased certainty and long-term security for marine-based industries; and
- Establish indicators of sustainability and requirements for monitoring, reporting and performance assessment" (Ehler, 2006).

It is important to note that the development of public policy must be explicitly inclusive in terms of the political objectives of various organisations and individual entities in the overarching decision-making process. The exception on this type of inclusivity is where the governing organisation made the autocratic decision to enforce the relevant policy (Chang, Chuang & Hwung, 2013). The strategic direction of AIMS 2050, Agenda 2063, and the SADC SMC provides clear proof that any public policy that requires support from these bodies will need to have inclusive public policies and more so within the MPP framework that lends itself to a transboundary environment and subsequently a network of marine scientists, naval commanders, and marine governance officials.

The idea of "networks", according to Blanco, Lowndes and Pratchett (2011), has found a firm embedment in the general understanding of governance and policy making. Blanco *et al.* (2011) also postulate that concepts such as "policy network" and "governance network" form part of a plethora of theoretical advances that highlight the importance of "both formal and informal interactions between participants in the policy process". Concomitantly, "networks", as a scientific phenomenon, are observed as both a focus for research into policy making and as a policy preference. From a neo-regional perspective, as in the case of the BCLME, it is observed that policy makers "have supported the development of networks as a response to complex problems, and as a way of levering in resources and expertise from beyond government" (Blanco *et al.*, 2011). In the context of this research study, the political and naval imperatives are of such a nature within the SADC domain that both the policy and governance networks require simultaneous focus from a policy-development point of view. This is especially true from a neo-regional perspective as the variables involved in a policy-development process among littoral states of varying economic stature, such as South Africa, Namibia, and Mozambique, include marine resource protection and maritime security.

The emergence of and support towards neo-regionalism, however, are not new and have gained momentum over the past two decades. According to Hettne (in Park, 2006), neo-regionalism can be described as "a regional project for the construction of a new world order in reaction to contemporary globalization". Hettne (in Park, 2006) postulates that neo-regionalism is, generally speaking, introduced in "real political or economic projects" that are identified for a specific region. It is also found that this neo-regionalism shows a strong correlation to the fact that the "region determines the direction and content of regionalism". Hettne (in Park, 2006) furthermore found that in terms of regional integration,

many analysts argue that it is crucial to distinguish between rationalization (as an economic process) and regionalism (as a political project). Such a distinction helps to shed light on the process by which regional actors pursue their interests and constitute a shared identity through sociocultural interaction within a circumscribed regional space.

The researcher postulates that a combination of regionalism and rationalisation needs to be considered for the purposes of this study as political and economic influences will impact on the possible development of an NTMPPF. The enormity of role players between different littoral states during the process of policy development also requires that all possible dimensions in terms of decision-making roles and advisory roles need to be considered throughout.

In a situation where various individuals or organisational bodies interact in decision making, it is important to note that mutual dependencies and the distribution of power or authority among the entities become an imperative dimension that gives the process a specific character. At a strategic level, where policy making is indicative of the level of decision making, the nature of decision making can vary widely (Kørnøv & Thissen, 2000). Studies conducted by Kørnøv and Thissen (2000) found that at one end of the continuum are conditions of centralised control, where basically one authoritative entity makes decisions regarding matters that involve the entire organisation. On the other end, it is observed where policy processes are presented for debate and negotiation to sometimes large numbers of essentially independent actors.

Attention should be paid to the research by Kørnøv and Thissen (2000), which provides evidence of the policy sciences, which indicates that political power play and compromise-making frequently overshadow scientific evidence in determining the governmental and intergovernmental decision making. According to Fisher and Forester (in Kørnøv & Thissen, 2000), the utopian approach whereby there is a "separation of objective knowledge from subjective values is considered unrealistic since all perceptions, information selections and inferences are affected by one's inevitable bias".

Fisher and Forester (in Kørnøv & Thissen, 2000) furthermore state that policy making

> is not a cognitive activity starting with fixed objectives resulting in the best way to achieve these, but rather an open interactive process in which problems, solutions and preferences, along with problem and solution perceptions, develop. Objectives and targets are then an output rather than an input to the process.

The vast difference between the current socio-economic and socio-political situations in the three respective littoral states in this study lends itself to a public policy process that needs to be interactive and mutually inclusive in terms of the objectives that are to be agreed upon.

Politically, it has been agreed upon by the SMC and the ISDSC that due the infrastructure of the SAN compared to that of the Mozambican and Namibian navies, careful consideration is required of the objectives that each littoral navy needs to pursue while still being aligned with the holistic approach that all three navies would consider as a collective vision.

Evidence by Vince (2014) indicates that notwithstanding the two decades of repeated political deliberations between various states to resolve the global ecological crisis of the high seas, as well as the consensus that progressive ocean governance actions are required for effective outcomes, the actual reality presents a dim picture in terms of the perceived reality. Political synergy is shared in terms of the common approach based on an integrated and ecosystem-based approach to ocean governance. It must, however, be stated that ocean governance does not necessarily mean "one size does not fit all" and "MSPs have been adjusted to fit various marine areas and their defining political, ecological, social and economic characteristics" (Vince, 2014). It goes without saying that an integrated approach as part of a greater ecosystem-based approach is inherently linked to MSP. It has been argued by Vince (2014) that "MSP can provide 'significant advantages' to the global crisis in oceans governance and the concept is now commonly utilised in oceans policies around the world".

The researcher therefore postulates that it would be an option of the littoral navies studied in this dissertation to assess the feasibility to utilise the current meta-data of the BCLME and the ASCLME in combination with the regulatory frameworks found in the three littoral states, as well as the doctrine followed by the three navies. The decision makers need to ensure that the political relationship between the relevant littoral states is not compromised by the envisaged policy framework. The baseline is the governance that is shared among the three littoral states, based on the underlying integration of the ecosystem-based approach linked with MSP. The

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global trend in terms of applying ocean governance is to explore best practice and to superimpose this on the environment where applicable, although it must be stated that it is only a guideline, as noted by Vince (2014).

Examples of how effective ocean governance has resulted in best practice can be found in the Netherlands' North Sea and comprise the following:

- "The first feature comprises regional and international treaties, conventions and legislation. These establish the philosophy and value system relating to the North Sea region and a number of regulations relating to its usage. They address the environmental and economic conflicts by seeking debate and synthesis over the many competing demands for rights and access to the North Sea.

- Secondly, in the Netherlands, there exists at the national level a formal institution to debate, coordinate and manage conflict relating to policies, strategies and legislation affecting access to and usage of the North Sea.

- The third feature is a drive toward integrated spatial information systems to support policy and strategy formulation and day-to-day administration" (Barry *et al.*, 2003).

3.3.4   Southern African Development Community (SADC) ocean governance status quo

From a neo-regional perspective (Engelbrecht, 2009; SADC, 2019), the gradual policy shift since 2011 towards an oceans economy by the AU and more specifically the SADC SMC is visible based on the following observations:

- The 19th Meeting of the SMC of the ISDSC held in Dar es Salaam, Tanzania, from 18 to 19 February 2013, noted that in terms of the SADC Maritime Security Strategy (MSS), actions such as the establishment of the Maritime Domain Awareness Centre (MDAC), funding sources for SADC MSS, appointment of an MSS representative at SADC Headquarters, marketing of SADC MSS, and legislation in respect of reporting vessels entering SADC maritime zones are in process.

- The 20th Annual Meeting of the SMC of the ISDSC was held in Lusaka, Zambia, from 4 to 5 April 2014, and the establishment of MDACs and funding sources for SADC MSS were ongoing.

- The situation remained unchanged during the 23rd Meeting of the SMC of the ISDSC that was held in Luanda, Angola, from 9 to 10 March 2017. Again, the establishment

of MDACs, as well as funding sources for SADC MSS, remained a priority, among other things.

- In 2018, the SMC took the lead in the review process as the custodian of the MSS. A Joint Technical Working Group reviewed the MSS in Pretoria. There were 11 SADC member states, namely Angola, Botswana, the Democratic Republic of the Congo, Mauritius, Mozambique, Namibia, the Seychelles, South Africa, Tanzania, Zambia, and Zimbabwe. The co-chair, Rear Admiral Yondo, Chief of Navy from the Democratic Republic of the Congo, stated that

> the SADC waters are exposed to numerous sources of maritime insecurity due to the growth of inter-state aggression, violations of maritime spaces, trafficking in human beings, weapons, narcotics, piracy and other aspects of smuggling and that this is why SADC understood the need for a strategic initiative to have cooperation and a naval presence in the African maritime field, not only for international trade, which plays a crucial role in many African economies, but also for the security of coastal and island countries, many of which have capacity weaknesses regarding surveillance and border control (Defence Web, 2019b).

It can be argued that a lack of political will, combined with a lack of understanding of the challenges faced in the oceans economy of the SMC of the ISDSC, could be the main reasons for the slow progress. The functional utility of the littoral navies is also not fully observed or appreciated in their application as constabulary or diplomatic platforms. The question, however, remains whether the citizenry of the respective littoral states understand and support the role that the littoral navies could and should play in terms of an oceans economy.

The strategic direction that the AU has taken based on the objectives listed in Table 3.3 presents a clear indication that synergy and cohesion are a high priority as engagement with all stakeholders is repeatedly listed. This approach is also shared in the objectives of the Economic Community of West African States (ECOWAS), as well as the MSS of the SADC. Ocean governance is presented as the baseline for a stronger and more optimised economy, and is also presented as one of the key performance factors in establishing the necessary infrastructure and political will that are required among the various RECs in the AU.

The need for maritime research and awareness is also presented as a key factor in the proposed SADC Integrated Maritime Strategy, which will improve understanding and cohesion among

the political decision makers and academia that play a nodal role in improving the capacity building across all sectors in each littoral state, as well as from a regional point of view. The researcher posits that continuous cooperation and information sharing are vital for any development of a transboundary policy framework as it is based on best practice, as well as the integration of all stakeholders who need to combine their collective resources.

The vital element, as listed in Table 3.3, is that of synergised maritime security across RECs as it influences trade and economic stability both in the AU and in the respective regions. The sharing and improvement of international marine protection regulatory frameworks are paramount for the development of transboundary and cross-sectoral MPP frameworks that need to be nationalised in order to support regional initiatives. The research thus far suggests that the role that navies can fulfil may prove to be invaluable as the concept of interoperability is in direct support of SADC SMC objectives and will prove a valuable platform to share naval doctrine that will improve littoral governance in conjunction with other national and international stakeholders.

Table 3.3: Comparative table between the strategic objectives of the different maritime strategies in the African Union (AU)

Ser. no.	AIMS 2050 objectives	Current SADC MSS objectives	Approved ECOWAS objectives	Proposed SADC IMS objectives
1	Establish a Combined Exclusive Maritime Zone of Africa (CEMZA)	In process	Strengthen maritime governance	Strengthen maritime governance
2	Engage civil society and all other stakeholders to improve awareness of maritime issues	In process	Promote maritime awareness and research	Promote maritime awareness and research
3	Enhance political will at community, national, regional, and continental levels	• Obtain SADC mandate to execute the MSS • Conclusion of inter-regional MOU to articulate cooperation and joint action in the region • Sustain the MSS in the long term through adequate funding	Strengthen maritime governance	Strengthen maritime governance
4	Enhance wealth creation, and regional and international trade performance through maritime-centric capacity and capability building	In process	Optimise the ECOWAS maritime economy	Optimise the SADC maritime economy
5	Ensure security and safety of maritime transportation systems	Cooperation and information sharing	A safe and secure maritime domain	A safe and secure maritime domain
6	Minimise environmental damage and expedite recovery from catastrophic events	In process	• Maritime environmental management • Promote maritime awareness and research	• Maritime environmental management • Promote maritime awareness and research
7	Prevent hostile and criminal acts at sea, and coordinate/harmonise the prosecution of the offenders	• Establish an SADC Anti-Piracy and Maritime Crime Prevention Task Team, with the mandate to oversee implementation and monitoring of anti-piracy/anti-crime resolutions and plans	• A safe and secure maritime domain • Optimise the ECOWAS maritime economy	• A safe and secure maritime domain • Optimise the SADC maritime economy

Ser. no.	AIMS 2050 objectives	Current SADC MSS objectives	Approved ECOWAS objectives	Proposed SADC IMS objectives
		• Support forces deployed in the maritime theatre • Capacity building for surveillance and interdiction capabilities to ensure real-time information and surveillance data		
8	Protect populations, including AMD heritage, assets, and critical infrastructure from maritime pollution and dumping of toxic and nuclear waste	In process	• Maritime environmental management • A safe and secure maritime domain	• Maritime environmental management • A safe and secure maritime domain
9	Improve ICZM in Africa	In process	Strengthen maritime governance	Strengthen maritime governance
10	Promote the ratification, domestication, and implementation of international legal instruments	Enhancement of maritime security capabilities in accordance with international standards and codes	Strengthen maritime governance	Strengthen maritime governance
11	Ensure synergies and coherence between sectoral policies within and between the RECs / regional mechanisms	Continuous support by the SADC through international efforts aimed at assisting, for example, Somalia to assert itself as a political state with the cooperation of internal stakeholders	Strengthen maritime governance	Strengthen maritime governance
12	Protect the right of access to sea and freedom of transit of goods for land-connected states	In process	• Strengthen maritime governance • A secure maritime domain	A safe and secure maritime domain

Source: Adapted from Walker (2017; 2018) and Defence Web (2019a)

3.3.5 The nexus between naval interoperability and neo-regional transboundary marine protection governance

The littoral states of this study represent the three most southern SADC countries that also experience increased maritime shipping movement alongside their vulnerable coastlines. The trade that emanates from this shipping movement requires a constabulary and diplomatic presence from a naval force that is not necessarily interpreted by the respective littoral governments as a reason to structure their fiscal and monetary policies in support of strategic naval acquisitions. At the moment, it is only the SAN and to a lesser extent the Namibian Navy that, with the mandate of their respective governments, exert a limited amount of naval force on their coastline and high seas.

The articulation of the role that navies are mandated with in a contemporary neo-regional setting is not necessarily understood equally by all citizens. This might be construed as a military force that is no longer required and that does not contribute to the stability and protection of marine resources and the prosperity of the national or regional economy. Blaine (2018) presents the multiple roles of a navy using the Leadmark Maritime Security Matrix (see Figure 3.7) that has its origin in research conducted by the Canadian Navy in 2001, and that correlates with the current naval roles of the SAN as mentioned in the Defence Review of 2015 (RSA: Department of Government Communication and Information Systems, 2020).

Figure 3.7: Leadmark Maritime Security Matrix
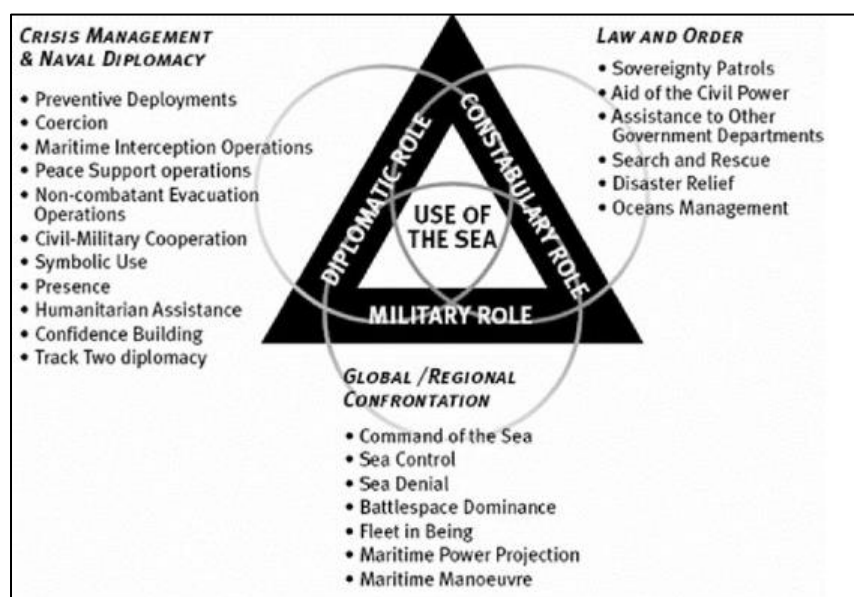
Source: Blaine (2018)

According to the researcher, the reality of limitations and constraints such as political volatility and budget constraints experienced by the southern-most littoral navies of the SADC suggests that interoperability will be deemed a strategic and regional imperative, due to the vast coastline that the three navies need to protect. It is observed that exercises and operations such Ex OXIDE, EX SHARED ACCORD and Ex GOOD HOPE conducted by these navies through joint, intergovernmental, integrated, and multi-national collaboration have strengthened their "jointness" (Defence Web, 2019b). The researcher argues that interoperability as a key operational requirement among allied naval forces, especially among littoral navies, not only strengthens the diplomatic relationship but also supports improved capacity building, sharing of best practice, and promotes a shared understanding of how to achieve synergy in terms of maritime security and stability. The naval roles depicted by Blaine (2018) include:

- diplomatic roles that include crisis management and naval diplomacy;
- constabulary roles that include law and order; and
- military roles that include global and regional confrontation.

These roles are assumed according to and dependent on the mission or tasks given in support of governmental priorities, as decided upon by the ruling political party. The multi-functional application of navies in its entirety may vary from rudimentary operations to expeditionary operations, which means that the ability to act as both a force multiplier on the high seas and as a deterrent in the coastal zone provides citizens with the protection and security that are expected from navies.

It is globally recognised that citizens in general acknowledge the finite nature of coastal resources, and therefore support the international call for fundamental shifts in ocean governance, political will, and coastal resource management. It is therefore not surprising that developments in the international law of the sea caused states to increase their sovereignty of the high seas in order to "protect, manage and exploit the ocean environment and resources" (Barry *et al*., 2003). Evidence of this can be found in New Zealand, where the EEZ amounts to more than 20 times the country's land area (Barry *et al*., 2003). This inevitably resulted in further negotiations over high seas boundaries between nations. The heightened awareness of the value of the EEZ among constituents therefore provided sufficient impetus among the political leaders and policy makers to place more emphasis on increasing the sovereignty of New Zealand. The researcher therefore postulates that the same approach remains an option to

the littoral states and navies in this study and culminated in a maritime security strategy at the Ministry of Transport.

3.3.6 Contemporary challenges of neo-regional transboundary marine protection

Barry *et al*., (2003) argue that management (read governance) of the high seas has become incrementally important but also challenging based on critical factors such as "ocean governance, ocean tenure, boundaries, and the notion of the marine cadastre to support ocean governance". It is noted that the concept of marine cadastre "is a system to enable the boundaries of maritime rights and interests to be recorded, spatially managed and physically defined in relationship to the boundaries of other neighbouring or underlying rights and interests" (Taljaard, 2011). The most notable difference between an MSP and a marine cadastre is based on the fact that a marine cadastre deals with rights and an MSP deals with maritime boundaries based on the right to use marine resources. It is therefore noted that ocean governance involves various regulatory and ecological instruments that need to be assessed and brought into alignment between neo-regional transboundary littoral states should an MPP framework be considered.

The challenge of NTMPPFs, according to the researcher, is found in the concept of governance that encompasses the integration of various national and international legal instruments, which in turn may or may not deliver the desired results. It is furthermore noted that international laws,

> be they hard or soft, are more often than not the product of compromise diplomacy, and as demonstrated during the difficult and convoluted negotiations that eventually led to the 1982 Law of the Sea Convention, the topography of compromise-seeking can prove particularly arduous and challenging (Hislop, 2007).

It stands to reason that the more role players that are involved, the more arduous it is to attain synergy, and this in turn may mean that the end result "may be a mere shadow of the initial corpus of solutions proposed to address the environmental problem or issue at hand" (Hislop, 2007).

Historic evidence (SADC, 2019) shows that within the SADC context there seems to be a continued delay in reaching tangible objectives from the time they were proposed until completion. Up to date, the SMC of the ISDSC is still in the process of accepting an MSS that

is aligned with the respective AU maritime conventions as amended. The interpretation of how MPAs will impact littoral states is also a point of dispute as each littoral state has its own articulation thereof.

Hislop (2007) further argues that evidence collected within the context of initiating and negotiating MPAs is characterised by constant challenges raised by the different parties. Various littoral states have already "expressed concerns that establishing MPAs in areas beyond national jurisdiction will impinge on the high seas freedoms articulated in the 1982 Law of the Sea Convention" (Hislop, 2007).

According to Hislop (2007), the time period after 1972 is characterised by various global environmental agreements that set out to nurture grand ambitions and grander visions. A clear divide exists between time spent "at large-scale oceans conservation fora developing new, or recognising and reiterating extant global principles versus time and resources spent on developing practical and most importantly politically feasible plans for governments to pursue". It is furthermore observed by Hislop (2007) that international environmental instruments often fail in "identifying the necessary and sufficient conditions for putting principles into practice". The World Summit on Sustainable Development (Johannesburg Plan of Implementation) is a clear point in case where various important macro goals were identified; however, "participating governments did not indicate how they would reach such goals and as such, acknowledgement of the Plan was left at the level of ambiguous, unenforceable promises" (Hislop, 2007; UN Sustainable Development Goals Knowledge Platform, 2002).

Research into the concept of international acceptance of high seas MPAs suggests that littoral states are more likely to be advantaged by a more reserved approach that focuses more on the politically sensitive considerations and thereby utilising a more "cautious 'micro-action' approach such as an MPA prototype" (Hislop, 2007). According to Hislop (2007), "prototyping is a strategy of inquiry located midway between a controlled experiment and a full-scale intervention". The advantages of a prototype programme include the following:

- The details are more flexible and make allowance for adjustments such as unforeseen challenges, new opportunities, and programmatic innovations/adaptations.
- A further advantage of a prototype is that it promotes policy diffusion, which relates to the fact that "a successful programme draws attention and establishes de facto standards which can be diffused laterally and adapted to similar problems elsewhere".

- The inverse of a negative outcome is that the results can be used to prevent similar situations in the future. Ultimately, a high seas MPA prototype provides all stakeholders with "an ecologically premised, politically acceptable and policy-feasible micro-action that can be negotiated outside the macro-goal limelight" (Hislop, 2007).

The evidence thus far supports the notion that an NTMPPF preceded by MPP programmes based on marine stewardship will in all likelihood be more achievable if flexibility and policy diffusion are accepted as guiding principles. The researcher, however, argues that protection of the regional littoral maritime space needs to be the underlying strategic and regional objective if AIMS 2050 and Agenda 2063 are to be reached by all signatories, especially South Africa, Namibia, and Mozambique.

3.3.7   Ocean governance as a utility for littoral marine protection

According to Uffman-Kirsch (2014) and Taljaard (2011), the situation often arises where harmful transboundary impacts are not clearly observable (even if they can be proven), or where agreements have not been concluded or do not exist, which consequently exposes the world's oceans to gross exploitation and no legal protection/conservation. This often occurs between two littoral states in terms of their "sovereign waters (internal waters and territorial seas) and in waters where they enjoy sovereign rights (exclusive economic zones and on continental shelves)" (Taljaard, 2011). It is often observed that where a legal obligation to protect and preserve the seas does exist, as in UNCLOS, the phenomenon frequently reoccurs where states are reluctant to enforce the respective statutory jurisdiction of international tribunals to hold fellow states accountable for breaches of their international obligations towards marine conservation. According to Uffman-Kirsch (2014), research shows that "for marine areas beyond the jurisdiction of states (the high seas), customary international law provides an obligation to prevent harm, however, an effective enforcement regime is the missing link".

The extent to which UNCLOS addresses ocean governance is favourable in terms of ocean protection, but in itself it does not present a comprehensive enough framework to cover all high seas planning issues. It is, however, true that, concomitantly, UNCLOS makes allowance for new agreements both at the global and regional levels to address ocean-related issues. Maritime transport and discharge of waste are for example two high seas activities that are regulated by marine pollution accords globally.

However, it has its limitations as these regulatory measures are

> based on a distance from land approach that dates from an era when it was not realized that offshore ecological resources are not necessarily less valuable and/or less sensitive to impacts, and that the open ocean cannot absorb greater levels of pollution (Ardron *et al*., 2008).

This has resulted in large concentrations of marine debris and oil slicks that are accumulating in high seas "sink" areas, with serious repercussions for marine wildlife, seabirds, fish, and fisheries. These gaps in the regulatory framework therefore do not address activities at an international level, such as:

- discrete high seas fisheries;
- emerging fisheries such as the capture of tuna for ranching in national waters;
- bio-prospecting;
- marine-scientific research; and
- military activities (Ardron *et al*., 2008).

Singleton (2009) postulates that the social science of "how to establish, implement, and manage MPAs is still relatively undeveloped". Wahle *et al*., (in Singleton, 2009) state that "a recent report from the National Marine Protected Areas Centre Science Institute states [that] the inability to adequately address the human dimension of MPAs is perhaps the greatest single impediment to their broader and effective use in marine conservation today". It has been found that the design, planning, and implementing of MPAs according to archaic "command-and-control" governmental processes have become unsustainable due to financial constraints and the public's mistrust of state regulatory authorities.

According to Ardron *et al*., (2008), UNCLOS is based on an expectation of cooperation. This expectation, however, does not encompass the mechanism "to coordinate and discuss substantive implementation issues, share best practices, or promote compliance" (Ardron *et al*., 2008). The UN Secretary General stated in his 2006 Annual Report that "mechanisms for horizontal integration among different levels of government and vertical integration among agencies with different mandates are essential for the application of an ecosystem approach" (in Ardron *et al*., 2008). This statement was more relevant in areas of national jurisdiction, but it could be postulated that UNCLOS has direct relevance in areas external to each state's national jurisdictional maritime environment, where at present there is no such mechanism.

The absence of a mechanism such as UNCLOS would add to the complexity of ensuring an inclusive MSP. Research proves that indicates that when a sensitive international oceans policy issue such as high-value bordering EEZs or MPAs exists, it is in the best interest of all parties that a cautious approach is followed in an incremental manner, external to the global focus (Hislop, 2007).

It is therefore also prudent to assume that all SADC deliberations towards increased and improved ocean governance need to be approached in the same manner because the economic and ecological stability among the three countries in this research study also shows signs of volatility and uncertainty.

According to Vallega (in Haward & Vince, 2009), a very prominent trend over the last decade has been the increased attention paid to institutional arrangements and policy outcomes, which have a direct influence on the management of seas and oceans across the globe. It is important to note that the international actions such as ocean governance policy development by Australia acted as a catalyst based on the subsequent international actions taken towards the development of ocean governance initiatives by other littoral states (Haward & Vince, 2009).

The approach followed by Australia indicates factors such as:

- "the complexity of managing a maritime estate that is extremely diverse and enormous in magnitude;
- the sovereignty and jurisdiction that need to be considered; as well as
- the range of institutions and instruments that contribute to current governance arrangements" (Haward & Vince, 2009).

The overarching emphasis on the various policy responsibilities is supportive of the conceptualisation as argued by Pierre and Peters (in Haward & Vince, 2009) towards governance that consists of the following four elements:

- "Articulating a common set of priorities (involving goal definition and mediation or conflict resolution of competing goals);
- Coherence (ensuring consistency and coordination);
- Steering (application of policy instruments and an implementation strategy); and
- Accountability (and evaluation)."

Research by Haward and Vince (2009), Taljaard (2011), and Paavola (2006) further argues that although there is an abundance of literature on governance, there has been a constant requirement for "new tools" and processes that would facilitate improved coordination of government activities, improved institutional capacity, and the overall effectiveness of public organisations. The due process followed to develop and implement the AOP is proof of the complex nature of ocean governance (Haward & Vince, 2009). From a sustainability and continuity point of view, it is both an ecological and organisational imperative that any kind of support given to public policy must be robust. The reason for this is that it must absorb all the different explicit political objectives of the various entities that are involved in the decision-making process, unless the authority insisted on enforcing the policy. The main reason for this is that any existing social complexities may result in an antagonistic relationship, which might jeopardise whether the policy measures up to equality and equity (Chang *et al.*, 2013).

The research conducted by Foster *et al.*, (2005) provides proof of how Australia and Canada, which are both federal states, were faced with various similar management challenges with respect to their respective bordering marine spatial areas. It is important to note how both states emphasised the need "for a more integrated approach to oceans management through establishing innovative processes for oceans planning and management by means of IOM" (Foster *et al.*, 2005). This newly established synergy resulted in each state learning from each other in an undiscovered global environment. Proof of this can be found in the Asia-Pacific Economic Cooperation meetings and working groups.

The approach followed by Australia (see Figure 3.8) to develop a policy that will be inclusive and will promote continuity among all stakeholders can be found in the AOP. One of the key considerations was that all political, scientific, and ecologically affected role players were given representation at all levels of the implementation process and allowed for improved capacity building along the implementation process.

Figure 3.8: Institutional arrangements for the implementation of Australia's Oceans Policy (AOP)
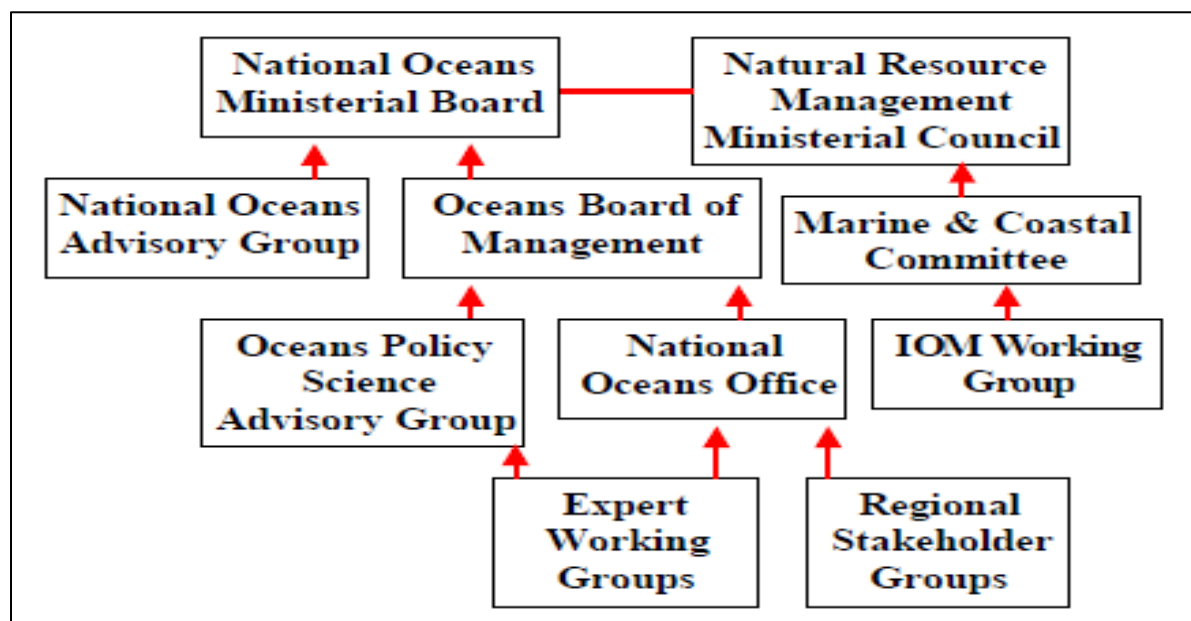
Source: Foster *et al*., (2005)

3.4   CAPACITY BUILDING AS A KEY CONSIDERATION FOR LITTORAL OCEAN POLICY DEVELOPMENT

From the onset of this study, one of the main focal areas of the research was to gain a better understanding of the existence of, and extent to which naval MPP per country focuses on capacity building pertaining to ocean governance of own forces.

In the literature review of this dissertation, the focus is on capacity building as part of policy in general. It is important to note that capacity building plays a nodal role as part of effective littoral management. This is more relevant among emerging countries where the focus is more on land-based economic opportunities and less on an oceans economy with its own plethora of economic opportunities and advantages.

It is internationally accepted that there is a direct correlation between successful ocean/coastal management and capacity building. The importance thereof is also increasingly based on the emphasis placed on MSP. It is also observed that on a global level, developing littoral countries are more inclined to place greater emphasis on capacity building of managerial staff than on the decision makers at a higher level, purely due to the absence of ocean management knowledge among the executives (Smith, 2002).

It is a generally accepted fact that the requirement for oceans training has increased exponentially over the past two decades as there is a much more prominent and intricate process of various entities that vary from private and voluntary sector organisations, governmental departments covering the full range of sea and coastal uses, as well as academic organisations (Smith, 2002). The research conducted by León and Robles (2002) supports Smith's (2002) notion that capacity building is recognised by the UN as a national imperative, particularly after Rio 92, as its foundational pillars are defined on the basis of "cooperation and partnership, where interaction requires and implies equality for its success" (Smith, 2002).

The UNDP (in Davies & Lemma, 2009) defines capacity building as "[t]he process through which individuals, organizations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time".

It is particularly Agenda 21 that comprises a series of detailed priority activities that focus on capacity building at the following levels:

- "the formulation of national sustainable development strategies, the sharing of experience and South-South cooperation, and the transfer of environmentally sound technologies; and
- the establishment of consultative processes and coordinating bodies on ocean and coastal affairs, the development of human resources, the creation of centres of excellence in coastal and ocean management, and the use of demonstration projects in ICM" (Duda & Sherman, 2002).

Capacity building, in the context of integrated ocean management, which includes the transfer of knowledge, skills development, and changing the aptitude to improve competency, takes place within a socio-economic and cultural context, which permits or inhibits dialogue between countries or professionals from different countries, because of strong economic asymmetries, among other reasons. Any dialogue about oceans training that fails to mention the socio-economic context tends to create a utopian dream in terms of individual and institutional capacities, which diminishes the importance of the obstacles the institutions themselves have to face. The challenges and constraints of the SADC and the three littoral countries in this dissertation are proof thereof. The ever-increasing phenomenon of shortages of natural resources that define the gap between rich and poor countries is reaching catastrophic proportions, "and on the other hand, paradoxically, interdependency increases (maximized by worldwide economic elements), be it because of sharing" (León & Robles, 2002). It is these

very structural obstacles in an emerging littoral oceans economy that present unavoidable challenges for cooperation but that also increasingly necessitate cooperation.

The researcher postulates that the challenge in terms of integrating different oceans economies presents itself when information needs to be shared in order for the cooperation process to be successful. The methodology decided upon by emerging littoral states needs to be structured and based on scientifically accepted guidelines if an NTMPPF is considered. This is especially true based on the fact that both governance and science are intricately involved in the development of a policy framework that intends to protect the littoral EEZ of three emerging states as presented in this dissertation. The collation and dissemination of scientific data represent a critical part of the quality of governance that needs to be planned, implemented, and revised at regular intervals.

3.4.1　A neo-regional approach to capacity building

The researcher thus far has attempted to elucidate the importance of the three factors – governance, interoperability, and capacity building – at the global level and until now at the regional level. The importance of capacity building at the regional level forms the cornerstone for an REC such as the SADC to attempt an NTMPPF using the SMC of the ISDSC as a foundation. In respect of the three navies that are studied in this dissertation, the prominence of the SAN as the leading naval force requires further assessment not only of its advantages but also the fact that it should be seen as a possible facilitator and not as the lead agent as this could result in conflict during the policy-development process and the sharing of information. The concept of capacity building from a maritime security or marine protection point of view is not often addressed on its own but rather as part of a more politically correct concept. This, according to Bueger, Edmunds and McCabe (2019), might result in "double blindness" as policy developers and policy implementers within the SADC context are constrained in their access to and knowledge of maritime security and how it affects the protection of marine resources among emerging littoral states. For that reason, these practitioners are also not aware of recent developments among academics where capacity building as part of maritime security in the domain of international politics is increasingly addressed. This type of information sharing is what is required for ICM to be effective and may serve as the basis for a cross-sectoral approach in order to filter through to various national and regional bodies of knowledge.

An essential consideration for ICM is the sharing of ocean-related information. This will allow for effective integrated development planning at the sub-national level, as in the case of the coastal areas of the Northern Cape in South Africa. These coastal areas were part of a programme where a Distance Learning Information Sharing Tool was introduced with the support of the World Bank and integrated into regional integrated conservation and planning frameworks (Suman, 2002).

The seminal work by Suman (2002) on ICM found that the main focus of ICM is on the respective organisational configuration that promotes synergy among the entities and user groups mandated to exercise authority over coastal areas and high seas resources. Historically, these entities managed "coastal resources by sector, such as fisheries, aquaculture, offshore oil and gas, ports, tourism, and conservation, without considering the impacts, both positive and negative, of one sector on another" (Suman, 2002). This type of management approach obviously results in wasted resources, animosity among stakeholders, and decreased environmental quality. The concept of integration requires an increase in coordination of output delivered by the various sectoral institutions (horizontal integration) and different levels of government (vertical integration) in the coastal area (Suman, 2002).

The sectoral or "silo" approach within the governmental context by countries such as South Africa requires specific consideration of the impact of vertical and horizontal integration as it may impede the process when considering the merging of ICM from neighbouring littoral states such as Namibia and Mozambique. The integration of ICM requires a more multi-sectoral and integrated approach with all government departments.

The main aspect of ICM is the concept of "integration", but consists of the following facets relating to integration:

- "*intersectoral integration* (integration among different coastal and marine sectors, such as oil and gas development and coastal fisheries);
- *intergovernmental integration* (integration among different levels of government national, provincial, local);
- *spatial integration* (integration between the land and ocean sides of the coastal zone);
- *science-management integration* (integration among the different disciplines important in coastal and ocean management being the natural sciences, the social sciences, and engineering, and the management entities); and

- *international integration* (when a nation borders enclosed or semi-enclosed seas or there are international disputes over fishing activities, transboundary pollution, establishment of maritime boundaries, passage of ships, and other issues)" (Cicin-Sain *et al*., 2000).

The researcher argues that the socio-economic and political volatility that South Africa and its neighbouring countries are experiencing would hamper the ability of interdepartmental integration based on financial and capacity-building constraints. This is envisaged to be even more problematic when attempting to seek alignment of national objectives, regulatory frameworks, and improved capacity-building programmes between the national departments of emerging littoral states such as South Africa, Namibia, and Mozambique. From a spatial perspective, the delimitation of boundaries and in some cases the overlapping of ocean boundaries will require a concerted legal effort in order to prevent politically sensitive situations from arising and simultaneously not to compromise existing initiatives towards regional capacity building.

3.4.2 Capacity-building options for transboundary neo-regional MPP development in the SADC

The establishment of the SADC brought about definite advantages in terms of possible agreements such as the BCLME and the ASCLME that allow for a more regional approach and synergy towards an oceans economy.

According to the GEF (2017) and Duda and Sherman (2002), the GEF Operational Strategy recommends that littoral countries such as South Africa that share an LME with another littoral country begin to address coastal and marine issues such as capacity building by jointly undertaking strategic processes to analyse factual, scientific information on transboundary concerns, their root causes, and setting priorities for action on transboundary concerns. This type of engagement allows countries to deliberate and reach consensus on what the national and regional policy and legal and institutional reforms and investments need to consist of in order to address the priorities in a country-driven and regionally driven Strategic Action Programme.

It is typically this type of engagement among littoral states that ensures that research becomes the foundation for policy making and creates a geographic location

> upon which an ecosystem-based approach to management can be developed. More importantly, it can be used to engage stakeholders within the geographic area so that they contribute to the dialogue and in the end they support the ecosystem-based approach that can be pragmatically implemented by the communities and governments involved (Duda & Sherman, 2002).

The importance for stakeholders at national and regional level to be continuously involved in capacity-building programmes, either through participation or through the level of support they provide, creates the impetus that is necessary for an ecosystem-based approach to be successful.

The existence of current agreements or regional cooperation such as the BCLME or the ASCLME provides a favourable environment for politicians, policy makers, and academia to consider other neo-regional transboundary ocean governance policy options. It is, however, a policy imperative that political support and intent need to exist in order for any policy-development project initiative to succeed.

A case in point where a project has culminated in an agreement is the BCLME, where the environmental ministers of the countries bordering these LMEs have entered into joint resource assessment and management activities as part of building the relevant institution (Duda & Sherman, 2002; Taljaard, 2011).

Research by Duda and Sherman (2002), Taljaard (2011), and the GEF (2017) further found that the GEF is supportive of an ecosystem-based project as forwarded as a request by Angola, Namibia and South Africa for the integrated management, sustainable development, and protection of the BCLME. The main focus of this project is on "sustainable management and utilization of living marine resources, mining and environmental variability, ecosystem forecasting, management of pollution, ecosystem health and protection of biological diversity, and capacity strengthening" (GEF, 2017). The respective littoral states agreed to establish an Interim Benguela Current Commission (IBCC) to enhance regional cooperation. The IBCC agreed to be supported by a project coordinating unit and advisory groups.

The IBCC agreed to certain guiding principles, which include the following:

- "The concept of sustainable development shall be used in a way that does not destroy the integrity of the BCLME ecosystem, or otherwise foreclose on options for use and enjoyment for future generations.

- The precautionary principle where appropriate, shall be applied, preventative measures being taken when there are reasonable grounds for concern that an activity may increase the potential hazards to human health, living marine resources or marine ecosystems, damage amenities, or interfere with other legitimate uses of the sea, even when there is no conclusive evidence of a causal relationship between the activity and the effects and by virtue of which greater caution is required when information is uncertain, unreliable or inadequate.

- The use of economic and policy instruments that foster sustainable development shall be promoted through, *inter alia*, the implementation of economic incentives for introducing environmentally friendly technologies, activities and practices; the phasing-out of subsidies which encourage the continuation of non-environmentally friendly technologies, activities and practices; the introduction of user fees and the polluter pays principle; and that environmental, ecosystem, and human health considerations shall be included into all relevant policies and sectoral plans, especially those concerning marine industrial development, fisheries, mariculture and marine transport" (GEF, 2017).

The creation of the IBCC was based on the premise that the principle of sustainability in the management of resources and continued capacity strengthening will be the main focus. The regional cooperation that therefore continues among member states of the IBCC is only possible with the support of the respective project coordinating unit and advisory groups, which in turn emphasises the policy requirement of ensuring that a "pool" of qualified and accredited participants is maintained in order to allow for continuity.

The heterogeneity that always exists within any policy-developer collective, however, requires consideration of the divergent approaches that might exist. Consistently, the reader is reminded of the dynamic environment in which the AU, the SADC, and the SMC of the ISDSC find themselves. This is furthermore compounded by the constraints that the navies of the SADC are experiencing; more specifically the South African, Mozambican, and Namibian navies. The

integration of ICM as part of an already burdened organisation creates even more challenges than what is already experienced.

Implementing and maintaining ICM according to the aspects as referred to above might prove to be the biggest challenge in managing the littoral area. Ensuring synergy among the various "divergent sectoral state agencies, of different levels of government, and of different disciplines" (Cicin-Sain *et al*., 2000), represents a most challenging set of tasks. It is therefore of paramount importance to present ICM entities with incentives in order to achieve integrated management and continuous collaboration (Cicin-Sain *et al*., 2000). In the same vein, it is imperative to allow for capacity building/training that will provide programmes that emphasise the interrelationships among coastal and ocean activities, and that will promote the type of competencies that coastal managers will need in their work (Cicin-Sain *et al*., 2000).

Global consensus, according to Cicin-Sain *et al*., (2000), is that two main types of capacity-building efforts are required in ICM, namely:

- those involving university-based degree programmes on ICM or closely related subjects; and
- those involving specific ICM courses (generally short courses).

There are challenges that emerging littoral countries will experience when contemplating the impact of integrating ICM-related development programmes into their respective government departments and more specifically the phased integration of some of these aspects into the doctrine and policies of their navies.

It is furthermore a globally accepted fact within the context of Chapter 17 of Agenda 21 (Harvey *et al*., 2002; IMO, 2019; UNEP, 2019a) that the requirement for coastal management practitioners is increasingly based on prerequisite expertise in terms of planning and implementation for ICM. The requirement focuses on the need for changes in present coastal management education and training. The cause of this is the shortage of national expertise that failed to successfully implement ICM programmes on a global level. The efficiency of ICM is directly affected by the following:

- "The lack of trained professionals in the areas of coastal policy;
- the lack in coastal planning and management; and
- lack in programme implementation" (Harvey *et al*., 2002).

The research conducted by León and Robles (2002) supports the fact that capacity building is a necessity and "its foundational pillars are defined on the basis of cooperation and partnership, where interaction requires and implies equality for its success". León and Robles (2002) furthermore postulate that capacity building is instrumental in the process of empowerment, which encompasses addressing various competencies such as improved knowledge, skills development, and institutional strengthening.

From an emerging littoral navy point of view, as in the case of the SAN, these competencies, such as improved knowledge, skills development, and institutional strengthening, would have to be planned as a strategic objective with a long-term vision of continued capacity building. The plethora of stakeholders, marine impacts, maritime activities, economic imperatives, and maritime security concerns all need to be articulated in such a way as to still be supportive of the national and regional strategic commitments.

The complexity of how to articulate the correlation between the different processes, such as organisational structure development and the successes or failures of coastal management education or training, presents various challenges that are not explicit at all times. This is furthermore exacerbated by the complexity of littoral problems, "which ultimately require the participation of many disciplines for their management, which in itself becomes a training-educational trap" (León & Robles, 2002).

Benson (2019) acknowledges this predicament by means of a fact sheet on the blue economy of Africa. Benson's (2019) premise is based on the fact that it would be in the best interest of a tripartite agreement to be considered between China, the USA, and the AU. The focus will be on cooperation, coordination, and communication dealing with the collective interests in freedom of navigation and improved and sustainable use of African marine resources. According to the researcher, the role that the SADC as an established REC could play in such a tripartite agreement could facilitate a multitude of other regional capacity-building opportunities and improved MPP frameworks.

The recent discovery of natural gas along the coastlines of Namibia, South Africa, and Mozambique is already compelling the SADC and its littoral states to consider the future use and utility of natural gas as part of the economic stimulus that the SADC requires. This is even more evident in the fact that the South African government has stated how natural gas will increasingly promote regional economic integration among the SADC, to the extent that a regional natural gas committee is planned that will be tasked with ensuring an improved

regional energy mix (Engineering News, 2018). The requirement for increased capacity building in a relatively new industrial opportunity such as natural gas also reinforces the necessity for the SADC to consider using all possible organisational avenues to stabilise the current economic, political, and marine resources utilisation situation.

Emerging economies and especially littoral states are experiencing the deterioration of their resources and ecosystems in general at an alarming rate. The dichotomy that exists between governments that are dependent on their marine resources that are diminishing due to insufficient financial resources and the fact that as part of national security there is little they can do to stop or confront it, places them at a crossroads with their own citizens. Marine and territorial factors as part of national security require the restoration of the operational foundations of ecosystems. It is, however, with certainty that littoral countries are increasingly observing the widening gap between them in terms of macro-economic indicators and the inequality in each country based on the availability of marine resources. These realities are the cause for the paradigm shift towards reformulating the idea of resource management and the scarcity thereof (León & Robles, 2002; Ehler, 2006; Taljaard, 2011).

The researcher is therefore of the opinion that sustainable marine resource management is possible if emerging littoral countries such as those found in the SADC agree nationally and regionally on the type and level of capacity building that need to continuously take place. The support for such capacity-building initiatives is readily available on the international level but emerging countries need to show their political support and ensure that all government institutions are aligned with the type of capacity building envisaged.

The prevalence and significance of training initiatives undertaken by international aid organisations are clearly visible in the formation and support of programmes in developing states. An example of this is the manner in which UNEP "funds coastal management training programmes through its GEF in programmes such as the Pacific Islands Country Climate Assessment Programme (PICCAP) and through its education programme, Network for Environmental Training at a Tertiary Level (NETLAPP)" (Harvey *et al*., 2002).

A combined effort by the University of the South Pacific and the Train-Sea-Coast Programme of UNDOALOS has developed training modules that focus on middle- to upper-management personnel in government, planners, and users of marine resources (South & Veitayaki, 1998). The Train-Sea-Coast Programme is situated in 10 countries and originated in 1993. Its main

objective is "to strengthen the capabilities of institutions and individuals having responsibilities in the field of coastal and ocean management" (South & Veitayaki, 1998).

A further example of how ICM is strengthened by a country can be found in the National Heritage Trust in Australia. The aim of the National Heritage Trust capacity-building programme is to enhance the management and technical skills of coastal managers to carry out ICM, develop practical experience through workplace training, and to develop education and information material to support community involvement in coastal management.

Accordingly, the National Heritage Trust capacity-building programme provides opportunities for coastal and marine education, information exchange through the Internet, development of industry codes of practice, and professional development and training. It aims to improve coastal and marine managers' understanding of coastal environments and enhances their management capability. It is also working towards improved communication between researchers, coastal managers, planners, and the community, and therefore is integral to improving ICM. The capacity-building programme comprises a number of elements, including a short course initiative, a series of codes of practice with industry and professional associations, and information exchange initiatives and development of resource materials (Harvey *et al*., 2002).

The Australian example discussed here can be used to compare the characteristics between capacity-building initiatives between Australia and other programmes in the Asia-Pacific region. The primary similarity is the endorsement of principles of ICM (namely a broad acceptance of the need for integration and coordination between governments and agencies in coastal management). Accordingly, capacity-building programmes have been widely implemented to accomplish the goals of ICM (Harvey *et al*., 2002).

The researcher needs to remind the reader that the examples discussed above are indicative of both national and regional capacity-building synergy that exists between the respective stakeholders. The approach to bring governance to science and science to governance speaks to the commitment and awareness of industry and governments to reach an amicable resolve. The actual accomplishment of goals was the result of a holistic approach to ICM and its utility to all stakeholders.

There are five major issues in the further development of ICM education and training, namely:

- reaching consensus on core concepts and frameworks in the field;
- the need to tailor the content of ICM courses to fit varying contexts;
- realising holism in ICM;
- the need for networking in ICM education and training; and
- special issues associated with building capacity in ICM in the developing world (Cicin-Sain *et al*., 2000).

A key challenge to teaching and training in ICM in emerging littoral states is that there is no shortage of "short-term courses on ICM and related subjects in which individuals from developing nations frequently participate, but very few established educational degree programmes in ICM may be found in developing nations" (Cicin-Sain *et al*., 2000). Symptomatic of such a situation is that developing littoral nations end up with individuals that have participated in a string of courses on or related to ICM, but have no overall education in the field, nor professional credentials to work in the field. According to Cicin-Sain *et al.,* (2000), there is an urgent requirement to

> build in-country capacity on ICM in developing countries. One model for doing this might be the designation of in-country (or regional-level) university-based programmes of excellence in ICM which would allow assistance and advice from the multinational banks and other donors. To build capacity, partnering arrangements could be established with universities in other countries to assist with the development of curricula, teaching materials, long-distance learning, and the like.

The integration of ICM among littoral member states and, for the purposes of this dissertation, among the navies of South Africa, Namibia, and Mozambique, will therefore have to be based on the knowledge and skills sets required for each incumbent based on the marine-related risks that exist. The military environment, which includes the maritime domain, has its own inherent risks and is affected by naval activities to a lesser or greater extent.

It is important to note that the US Army also acknowledges the concept of change in the military domain, and more specifically in the environmental domain. Although the priority given to environmental security is relatively low, the US Army has defined environmental security as environmental viability for life support, with the following three sub-elements:

- "Preventing or repairing military damage to the environment;

- Preventing or responding to environmentally caused conflicts; and

- Protecting the environment due to the moral value of the environment itself" (Glen & Gordon, 2002).

The SAN within the SADC maritime security context, as well as the commitment to marine custodianship, shares the approach with the US Army in the sense that the SAN has an official environmental policy that commits to "corporate responsibility by means of a commitment to creating a better environment through the prevention and combatting of all forms of pollution and by complying with legislation and conforming to the relevant international conventions" (Kwak, 2011). The commitment to self-improvement through a process of continuous evaluation and the integration of environmental awareness as part of naval activities is indicative of the strategic commitment to marine protection capacity building and custodianship by higher-command structures.

3.5   CONCLUSION

The research presented in this chapter applied ocean governance, interoperability, and capacity building as the three critical factors when opting to develop an NTMPPF. The researcher attempted to approach IOM from a developing governmental perspective to determine how global IOM trends affect the AMD and more specifically the SADC. The vital but also difficult role that governmental facilitation plays in MPP development was confirmed, especially in a developing littoral context. Cognisance was taken of the fact that developing littoral states have varied opinions and priorities of what sustainable marine resource protection entails but that there is increasing awareness of regional engagement and synergy.

The situation whereby littoral states are regionally mandated to fulfil their IOM responsibilities under a shared governance framework, but need to report to a monitoring body that will preside over the agreed objectives given to all relevant role players, presents clear conflicting risks by its very nature. It is therefore in the best interest of each affected government to continually monitor progress and ensure long-term commitment in both policy development and in supporting local capacity building.

It was observed that the probability of sporadic volatility during deliberations between especially developing states necessitates ocean governance by means of continual, transparent, and robust deliberations over the socio-political, economic, and environmental issues of contention in terms of policies, national and international security, management structures, and

capacity building. It is a policy imperative that all MPAs agreed upon by neighbouring littoral states should be the result of cooperation.

It is internationally accepted that a "bottom-up" approach to governance should be advantageous for the development of objectives by all stakeholders. The main focus of effort should, however, be that, due to a plethora of stakeholders and issues, there should be specific guidelines and mandates in support of productive consultations. The basic foundation of an MPP framework requires sufficient organisational arrangements that will require the entirety of a given government to take ownership of the planning, management, and enforcement processes. It is preferable that any regional plan is developed in consultation with all stakeholders directly affected by it. This type of approach will mitigate any future compliance and enforcement issues that might be problematic or unwanted.

The research in this chapter provided a strong argument that MPP processes take a long time to be developed and also require capacity building among both government and ocean stakeholders. The importance of capacity building and inclusive, continuous engagement of key role players during planning processes are important challenges for the effective management of a large ocean management area with a complex, multi-level policy framework in a social-legal-environmental institutional setting. Ultimately, if the affected government agencies do not have the required competent human resources and infrastructure to implement the plans, the plans will never realise.

The current state of ocean governance in the SADC is directly influenced by the major maritime role players, of which South Africa and its two littoral neighbours represent the southern-most coastal states. The emerging role that these navies are playing, including the increasing role they are expected to fulfil in the AMD, and more so within the scope of AIMS 2050 and Agenda 2063, requires further research.

The following chapter is an attempt by the researcher to postulate the emerging neo-regional roles that the navies of South Africa, Namibia, and Mozambique are faced with in terms of considering improved transboundary MPP frameworks within the context of the AU and SADC, as well as at the governmental level.

CHAPTER 4:

THE EMERGING NEO-REGIONAL ROLE OF THE NAMIBIAN, SOUTH AFRICAN, AND MOZAMBICAN NAVIES

4.1   INTRODUCTION

The literature study conducted thus far provided an overview of the extent to which MPP frameworks have been integrated globally and how emerging littoral organisations, such as the AU and SADC, and their member states have attempted to reinforce and promote synergy towards a blue economy between the emerging littoral states.

The aim of this chapter is to extrapolate the neo-regional marine protection contribution of SADC littoral navies, namely the Namibian, South African, and Mozambican navies, in the AMD. It is posited that such contributions by navies towards the development of an NTMPPF will support regional marine protection through constabulary and diplomatic operations and will support the governance of the littoral seas through improved maritime security, improved interoperability due to multi-lateral cooperation and agreements, as well as improved multi-national capacity-building opportunities within the confines of the SADC.

4.2   NEO-REGIONAL APPROACH BY THE AFRICAN UNION (AU) TO A BLUE ECONOMY

The United Nations Economic Commission for Africa's (UNECA) *Africa's Blue Economy: A Policy Handbook* (2016) states that it is a long-standing and unrealised recommendation from the AU to establish a dedicated and capable naval entity within its own organisational domain. The support for this continental drive originated among African states from a resolution at the Third Sea Power for Africa Symposium in 2009. At this symposium, support was given by African ministers and Chiefs of African Navies to the Addis Ababa Declaration of 2012, which was eventually endorsed by AIMS 2050 and that was instrumental in drafting Agenda 2063 (UNECA, 2016; Walker, 2020). The inclusion of maritime factors in Agenda 2063 that address Africa's blue oceans economy is deemed as a significant cornerstone of the transformation and growth of Africa. The focus of the main effort of Agenda 2063 entails acquiring "knowledge on marine and aquatic biotechnology, the growth of an Africa-wide shipping industry, the development of sea, river and lake transport and fishing, and exploitation and beneficiation of deep sea mineral and other resources" (AMCEN, 2017).

The stark reality, however, presents a different situation currently in terms of the original AU interdepartmental AIMS 2050 task force, formed in June 2011, which has decreased significantly, and resulted in a subsequent loss of expertise, administrative support, and institutional memory (UNECA, 2016). The AU consensus on the strategic importance that it accords the blue economy is exacerbated and almost quelled by the pragmatic execution and achievement thereof among AU maritime stakeholders (Walker, 2020). It seems that there is a distinct disconnect between the different interpretations of how Agenda 2063 and AIMS 2050 need to be executed and brought into harmony between the different AU member states.

The evidence that exists on the synergy that is strived for among AU states is scuppered by the reality of 54 African states, of which 38 (see Figure 4.1) of these are littoral states (UNECA, 2016), including the island states with their absolute dependence on the oceans. The challenge that AU states are faced with is that 16 landlocked states, with inland economies, are dependent on 38 littoral states, which have a slow but ever-growing blue economy. The majority of the economies of Africa are directly dependent on their littoral zones and EEZs to sustain their economic stability, growth, and welfare. The historic past of Africa also reflects the emphasis on economies that were land based and not focused on the opportunities that were available in the AMD. The occupation by British, Spanish, and Dutch colonialists during early expeditions and the use of shipping routes around Africa resulted in increased awareness among African states of how their natural resources were exploited via visiting vessels in harbours, and the importance of these harbours.

The status quo since post-colonial occupation in the AMD has progressed to a neo-regional awareness among both landlocked and littoral states that the coastal waters and the rest of the maritime domain need to be collectively protected for the benefit of the African continent.

Figure 4.1: Thirty-eight littoral African states

Source: Maps of the World (2019)

This suggests that these littoral states also have a regional responsibility to assist and facilitate a neo-regional impetus due to the fact that the land-connected countries do not have a littoral geo-strategic advantage. Within the SADC context, it is a regional imperative to ensure political, economic, and ecological synergy between littoral states and landlocked states as safety and stability are a common strategic imperative for all the developing states in the AU.

The interconnected status and interdependency of the 54 African states are widely researched and addressed by a plethora of stakeholders and create the framework for the ever-increasing importance of littoral safety and stability at sea, which should be integrated into the policy framework of all affected and interested parties. It is imperative that the decision makers and policy developers understand their critical role in providing and ensuring continuity towards

good governance, policy stability, and security in the AMD (AU, 2020). The main drive of AIMS 2050 was to promote a common strategic approach to developing a blue economy among littoral states under the guidance of the AIMS chairperson, as well as to filter this approach as far down as possible.

The emphasis was furthermore to create "a nexus for development, security and governance, under the 2050 AIMS chairperson ... and would therefore be close to the top of the AU, be informed by legal expertise and have access to all departments" (UNECA, 2016). The impetus in the AU towards a blue economy is, however, hampered by both governments and academics in the dichotomy among them, which is based on the conflicting predictions of transboundary waters that may increasingly become a cause of conflict, while others are of the opinion that such agreements may be seen as a step towards improved cooperation (Sadoff & Grey, 2005). Riparian cooperation, as postulated by the International Water Law Project (n.d.), refers to an ecological area such as a wetland adjacent to a river or stream, and presents the same principle from a cooperation point of view that transboundary marine waters present when assessing economic value.

The phenomenon of riparian cooperation between states is deemed to enable a more sustained and well-coordinated level of management that results in the protection of shared natural resources such as watercourses (International Water Law Project, n.d.). Cooperation, however, cannot be observed as the perfect solution to always produce benefits as it has been observed to produce inequitable and unsustainable outcomes (International Water Law Project, n.d.). The basis of cooperation is driven by self-interest, political prejudice, and fluctuating socio-economic influences. The interdependency on natural resources and, from a littoral point of view, access to ports, automatically places certain landlocked states on the back foot due to their dependency on ports to sustain their economies. The responsibility that rests on littoral states for supporting inland economies does, however, extend beyond their EEZs towards the high seas.

Wright and Rochette (2019) found that the extended continental shelf that extend outside the EEZ of any nation represent almost half of the land surface belonging to the same nation. It is, however, important to be reminded that human activities on the high seas, and not only on land, which include areas beyond national jurisdiction (ABNJs), have expanded and intensified rapidly over the last decade. It is therefore based on these identified shortcomings that states and organisations such as the AU are addressing the existing ocean governance framework that

covers the high seas. The action in addressing these shortcomings, such as what is found in Agenda 2063, includes, among others, formal diplomatic negotiations that are envisaged to protect and sustainably use high seas biodiversity (Wright & Rochette, 2019). The formulation of Agenda 2063 (AU Commission, 2015) seeks to address these shortcomings by means of "aspirations" (see Figure 4.2).

Figure 4.2: Aspirations of Agenda 2063 for Africa

OUR ASPIRATIONS FOR THE AFRICA WE WANT

1. A prosperous Africa based on inclusive growth and sustainable development
2. An integrated continent, politically united and based on the ideals of Pan-Africanism and the vision of Africa's Renaissance
3. An Africa of good governance, democracy, respect for human rights, justice and the rule of law
4. A peaceful and secure Africa
5. An Africa with a strong cultural identity, common heritage, shared values and ethics
6. An Africa whose development is people-driven, relying on the potential of African people, especially its women and youth, and caring for children
7. Africa as a strong, united and influential global player and partner

Source: AU Commission (2015)

The aspirations as listed in Figure 4.2 present very definite evidence of commitment to inclusivity and sustainability by the AU. The mention of a vision for African Renaissance is, however, contradicted by the continuous political, economic, and ecological instability that exists across the various AU RECs such as the SADC. The idealist approach of good governance, democracy, and a global partnership requires a renewed approach in terms of cross-sectoral consensus between industry and governments if NTMPPFs are to be effective.

The researcher postulates that a concerted neo-regional policy shift from idealistic approaches to a more pragmatic and tangible construct that includes a combination of synergised political and economic architectural improvements needs to be deliberated, planned, and implemented in order to achieve Agenda 2063. Furthermore, the importance of AIMS 2050 in the aspirations of Agenda 2063 becomes very evident based on the fact that the EEZs of an REC, such as the SADC, can and will provide a considerable secure foundation for improved socio-political, socio-economic, maritime security and marine resource stability. The attainment of a secure

maritime environment is, however, only possible if REC ocean governance architecture, economic policy synergy, and sustainable management of marine resources are merged into an REC policy framework where maritime security arrangements can depend on financial and political support and maintained based on shared littoral state willingness.

A critical factor to consider towards an improved blue economy is undoubtedly the willingness by littoral states to commit financial support and political cohesion, which in itself presents real challenges given the contemporary socio-economic conditions that prevail in the AU and more specifically the SADC. The scrutiny and support that are expected from any regional or intra-continental organisation such as the AU play a nodal role in promoting regional stability and economic welfare. The UN, as an example, receives both financial and relative political support and serves as a supporting pillar to the AU. The depth and size of the UN are clearly depicted in Figure 4.3. The distinguishing factor, however, is the fact that the UN is largely supported and strengthened by developed countries with political and economic and military influence.

Figure 4.3: Summarised schematic diagram of an international ocean governance structure, showing the sectoral approach and the plethora of organisations
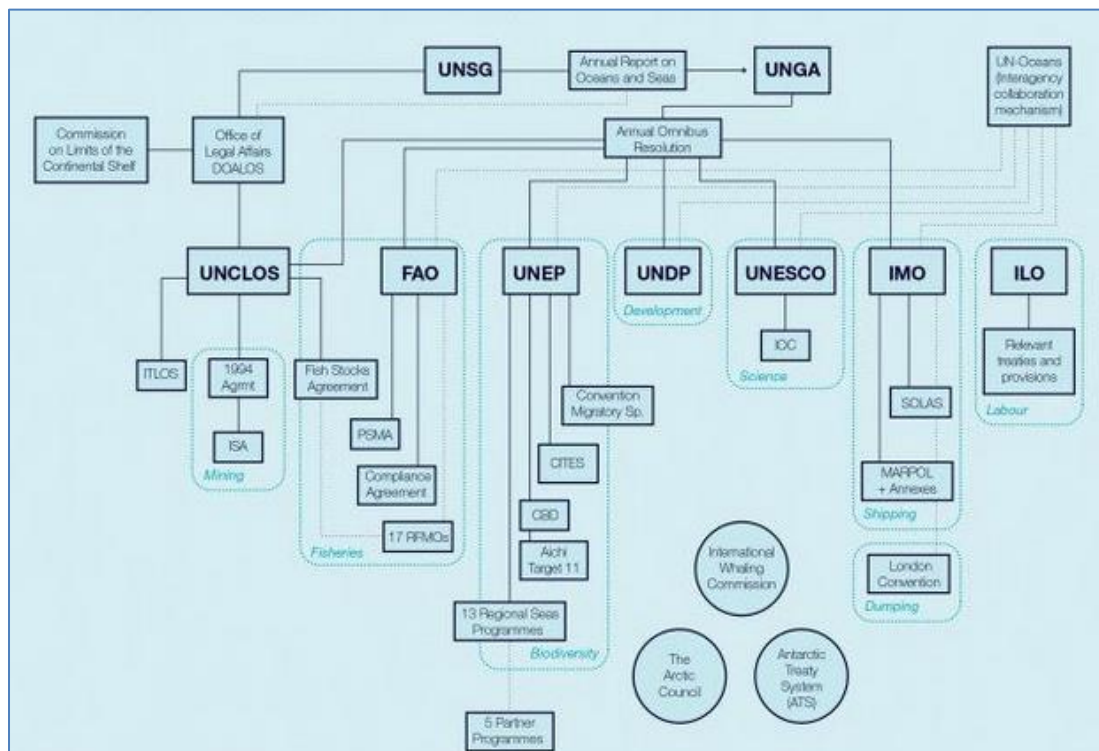
Source: GOC (2019)

The UN General Assembly (see Figure 4.3) and the UN Secretary General have a plethora of organisations that interface at some point or another in terms of ocean governance. The focus

on ocean governance is due to the fact that the UN realises the importance of exerting its influence on a trading domain that ultimately determines the socio-economic and socio-political stability of affected states. Major economic powers such as the USA, China, and the EU are critically dependent on a stable maritime environment in order to maintain their economies and political stability. The existence of the IMO, UNEP, and UNCLOS provides a clear indication of the importance thereof that the UN seeks to influence policy and regulatory frameworks at a global level. This also allows the UN to gain support from superpowers to influence the ocean governance required for its own gain. There seems to be a distinct difference between the relative synergy within the UN in comparison to the fluctuating political interaction that AU member states have displayed since its inception in 2002 (AU, 2020).

The evidence studied thus far suggests that the AU does not have synergised support among its member states with regard to ensuring and maintaining political stability; nor does the AU have the economic strength to improve the integrated ocean governance of the African littoral EEZs through role players such as navies. The progress that has been made receives varied but progressive political and industry support, which is that of the SADC, where an ecologically driven initiative in support of ocean governance and ecological protection can be found in the LMEs on the Atlantic and Indian Ocean side. These systems, or marine programmes, as they are referred to in the sub-Saharan maritime domain, are the BCLME Programme, the Agulhas Current Large Marine Ecosystem (ACLME) Programme, and the Somali Current Large Marine Ecosystem (SCLME) Programme (Gove, 2011).

The latter half of the 1990s saw the initiation of the BCLME Programme. This was a partnership between the governments of South Africa, Namibia, and Angola as SADC countries, and was initiated to manage and utilise the resources of the BCLME in an integrated and sustainable manner. This joint initiative to improve governance of the rich resources of the Benguela Current culminated in 2006 with the establishment of the Benguela Current Commission (BCC). This is an inter-agency coordination mechanism for sustainable management of resources and has led to strengthening regional cooperation in governing the resources of the Benguela Current system.

The implementation phase of the BCLME Programme began in 2002 and has a number of key objectives, namely:

- "sustainable management and utilization of resources;
- facilitation of optimal harvesting of living resources;
- assessment of seabed mining and drilling impacts and policy harmonization;
- responsible development of mariculture;
- protection of vulnerable species and habitats;
- assessment of non-harvested species and their role in the ecosystem;
- assessment of environmental variability;
- ecosystem impacts and improvement of predictability;
- reducing uncertainty and improving predictability;
- capacity strengthening and training;
- management of consequences of harmful algal blooms;
- maintenance of ecosystem health and management of pollution;
- improvement of water quality;
- prevention and management of oil spills;
- reduction of marine litter;
- retardation/reversal of habitat destruction/alteration; and
- conservation of Biodiversity" (Gove, 2011).

From a neo-regional transboundary perspective, there is sufficient evidence in support of creating an MPP environment that will be supportive of a blue economy. The BCLME objectives are directly aligned with the creation of a blue economy, and end states such as the sustainable management and utilisation of resources, as well as a commitment to capacity building, among other things, speak clearly to the protection of marine resources and strengthening the capacity of stakeholders to maintain such a drive. The prerequisite for this, however, is the necessary political support in combination with financial commitment and a secure coastal zone to allow for continuity. There is at times an apparent disconnect between the policy-development environment and the inherent willingness by means of financial, organisational, and type of custodianship portrayed by politicians to equally utilise all relevant governmental stakeholders such as navies in providing input and impetus to such a neo-regional initiative. It is important to note that the littoral states of the AU and more specifically

the SADC are aware of the necessity of cross-sectoral engagement taking place in support of AIMS 2050 and Agenda 2063 (Gove, 2011).

A Strategic Action Plan, signed by ministers representing the fisheries, environment, mines, and energy sectors of Angola, Namibia, and South Africa in January 2000, laid out guidelines and a policy framework for the integrated and sustainable management of the BCLME. The BCLME Programme has supported a number of projects towards improved knowledge of the BCLME and recommended strategies for the transboundary management of fishing, mining, oil exploration, coastal development, biodiversity, and pollution. Programme activities revealed the absence of an inter-agency coordination mechanism for sustainable management of the resources and led to the establishment of the BCC in 2006 to strengthen regional cooperation, to address the gaps in current knowledge, and to make recommendations to the three countries on research and management issues relating to the management of the BCLME (Gove, 2011).

The documentary evidence presented in this study thus far supports the notion that cross-sectoral support exists for the functioning of the BCLME. It is also observed during the research on the topic of the BCLME that the requirement for the sustainable management of marine resources also needs a stable and secure maritime domain as envisaged by AIMS 2050 and Agenda 2063. The role of SADC navies in the Atlantic littoral coastline is therefore an opportunity and challenge that rest upon the decision-making process of all three littoral states as referred to in the research objectives of this dissertation.

A process similar to the BCLME was completed that incorporates the ACLME and the SCLME, which extends from the Comoros Islands and the northern tip of Madagascar up to the Horn of Africa in the Indian Ocean (Gove, 2011). The Indian Ocean, as a case in point, has over the past decade attracted increased attention in terms of regional maritime security, as well as ecological threats that an ABNJ such as the Indian Ocean would face.

The transboundary regional impetus that the ACLME and SCLME of which South Africa and Mozambique are signatories, in combination with the BCLME, provides towards improved ocean governance, interoperability, and capacity building across specific mentioned intergovernmental sectors, requires further scrutiny as it may support the objectives of this research study. This type of impetus is, however, directly dependent on a secure and stable maritime domain within the littoral boundaries of the SADC.

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4.2.1 Regional maritime security in the African Maritime Domain (AMD) in support of an NTMPPF

According to Potgieter (2012), the aspect of regional maritime security no longer lies exclusively with the main superpowers but has become a multi-faceted and dynamic environment, and the Indian Ocean is, as previously stated, a good example of this changing maritime security phenomenon. Maritime security is generally referred to in a very broad sense, and includes aspects such as physical safety and security measures for port security. A definition is therefore a challenge; however, for the purposes of this research, it could be defined as a term that addresses the prevention and control of illegal activities in the maritime domain. The term "maritime security" as defined in Chapter Two could furthermore include state security inputs and outputs that focus on the needs of a specific country; or, in terms of this research, it could cover regional agreements to improve overall maritime security (Potgieter, 2012; Bueger, Edmunds & McCabe, 2019).

The increased prominence of state actors such as India and China that have entered the maritime theatre is changing the way that neo-regional agreements affect the dynamics of ocean governance and more specifically maritime security in the Indian Ocean. It is, however, noteworthy to acknowledge how contemporary global trends such as hijacking, illegal fishing, and human trafficking have escalated maritime security challenges as non-state role players are concomitantly presenting new factors that influence maritime security in both an indirect and direct way. The geo-strategic importance of the Indian Ocean, while not ignoring the Atlantic Ocean, cannot be emphasised enough as it plays a vital role in the global economy and the overall energy trade. The role that SADC played in the Indian Ocean Rim Association and more specifically the leading role that South Africa assumed towards improved ocean governance presented added impetus to maritime security. It is therefore clear that superpowers are inclined to rather project their power and assume a diplomatic role towards good order at sea than to engage in naval conflict or be perceived as aggressors (Potgieter, 2012; South African Development Community, 2020; Walker, 2015c). It is in the best interest of all littoral and land-locked state actors to pursue a more diplomatic approach within the relevant regulatory framework, especially if the respective economies are to support an improved socio-economic environment in the AU in terms of a blue economy. One of the many legal approaches for improved NTMPPFs is found in the Nagoya Protocol, which both South Africa and Mozambique have ratified, and Namibia has acceded to (RSA: Department of Environment, Forestry and Fisheries, 2020).

The Nagoya Protocol was developed in order to create a legal framework and ultimately a legally binding agreement that prescribe how one state will be granted authority to utilise another state's genetic resources and how that will be shared (RSA: Department of Environment, Forestry and Fisheries, 2020). The Nagoya Protocol, within the SADC context and for the purposes of this study, promotes a regulated method to gain access to all ecological data, as well as their associated traditional knowledge. The inclusivity and continuity that the researcher prescribes to in this dissertation are therefore aligned with the regulatory frameworks of procedures such as IOM, ICZM, SEA, and MBP that support AIMS 2050, Agenda 2063, and the move by the SADC towards a blue economy.

It is important to be reminded that during and after the Cold War, Asian and African states had the Indian Ocean as a gateway for the trading of goods and over the past two decades experienced increased competition by non-state actors that identified the opportunity to disrupt and lay claim to merchant navy cargo. The Indian Ocean, and to a lesser extent the Atlantic Ocean, experienced a type of transformation that had a direct bearing on maritime security. This was because of failing governmental oversight, MPP development, and a visible constrained capacity to exercise control over the sovereign marine areas. This led to various kinds of illicit activities, and even more so in the ABNJs. The requirement and presence of naval force projection in support of maritime security and trade stability in the high seas are therefore the logical option to curtail illicit activities and thereby ensuring that, in combination with diplomatic pressure that is being exerted, the high oceans and the respective EEZs are better managed (Institute for Security Studies, 2014).

4.2.2 Naval force projection in support of maritime security

The escalation of naval force projection both in a diplomatic realm as well as the more assertive role of conducting naval exercises have led to more focus being shifted to the maritime security abilities of state, regional, and multi-national role players in littoral areas.

Potgieter (2012) postulates that an assessment of the complex maritime security environment resulted in the identification of the following trends:

- The global superpowers such as the USA, India, Australia, the United Kingdom, and Canada have committed themselves to maintaining and expanding their naval presence in the Indian Ocean. These include attempts to hinder or limit the power and influence

of countries such as China, Iran, and Russia; to protect secure access to energy sources; and to counter terrorism and other security threats.

- Countries such as China, Iran, and Pakistan have strengthened their presence in the Indian Ocean. They even extended their efforts by increasing their abilities to oppose any possible threats that may be posed by North Atlantic Treaty Organization member states such as US-aligned states.

- A very recent trend includes the activities of the littoral Indian Ocean states, "which are concerned with national or regional maritime security in relation to specific rivals within their own sub-regions, as attested to by the many maritime boundary disputes and jurisdictional claims in the region" (Potgieter, 2012).

- The last but very evident threat that undermines the economies of the littoral states affected relates to the "efforts of IOR states to manage the large variety of transnational and non-traditional threats they face, including environmental challenges, fishing infringements, smuggling and trafficking, piracy and the security of offshore installations" (Potgieter, 2012).

It is based on the abovementioned facts that it could be argued that maritime security by definition implies good order at sea that needs to be maintained and that in turn would require that the respective littoral states need to agree to relatively similar ocean governance to be applied in ABNJs. This inevitably leads to navies, such as SADC navies, being tasked to plan and conduct multi-lateral exercises and subsequent maritime security interaction that present the baseline for improved interoperability, capacity training, and ultimately good ocean governance among littoral states. The operational readiness and capacity of navies of developing countries such as those in SADC to fulfil their mandates are, however, questioned.

Brits and Nel (2016) found a "glaring lacuna" in the SAN based on lacking ocean governance, and that the multitude of regulatory factors impair their operational readiness and ability to ensure maritime security as part of its support to SADC SMC member states. This military-strategic and geo-politic predicament suggests that the SAN, including the Namibian Navy and the Mozambican Navy, are confronted with a multi-faceted and ever-increasing requirement to reconsider the option of changing the mandate of their navies from mainly "fighters at sea" to a more defensive state utility that suggests and speaks to "protecting at sea, and serving at sea".

The research conducted by Potgieter (2012) and Walker (2020), however, presents a more sombre environment in terms of maritime security, good governance, and interoperability among the navies of Africa specifically. The lack of resources, financial constraints, and overall

inability to ensure and maintain maritime sovereignty seem to be a common phenomenon among African littoral states. "In many instances, their navies or coastguards cannot even be considered to be token navies" (Potgieter, 2012). During a recent Maritime Security Conference held in 2018, both the Honourable Minister of Defence and Military Veterans, Ms Nosiviwe Mapisa-Nqakula, as well as the Chief of the SAN, Vice Admiral Mosuwa Hlongwane, emphasised the critical challenges that the SAN faces in protecting the maritime sovereignty of South Africa, as well as that of the SADC. The challenge lies in the fact that in order to ensure sovereignty, it must be exercised in order to be recognised. The constabulary and diplomatic roles are not only at risk, but the overall maritime domain awareness is compromised and so is the probability of increased illicit activities. Ultimately, this prevents a country such as South Africa from being able to implement economic mechanisms such as Operation Phakisa and the National Development Plan, which focus increasingly on the blue economy (Wingrin, 2019; Potgieter, 2012).

The Chief of the SAN in his speech at the Maritime Security Conference, held in Cape Town on 31 May 2018, raised the importance of protecting and promoting the maritime and related assets of South Africa. This was also supported by Ms Mapisa-Nqakula when she said that "South Africa, as a maritime nation, is highly dependent on the oceans that surrounded it and that her prosperity lies on what arrives by sea and leaves its shores by sea" (Wingrin, 2018).

The minister said that this cannot happen without maritime security, adding that "this is the role of the SAN, [being] responsible for maritime defence" (Wingrin, 2018; 2019). Maritime defence in the context of the SADC is therefore increasingly not only a maritime security imperative but also a crucial factor to consider in the national and regional paradigm of thinking. Regional engagement based on mutually inclusive constraints within the larger AU and on the SADC level is therefore in the best interest of all stakeholders.

A statement by Ms Mapisa-Nqakula (in Wingrin, 2018) reiterated the importance of multi-stakeholder engagement and cooperation both nationally and regionally. The constabulary role of the SAN, in conjunction with a department such as the Department of Agriculture, Forestry and Fisheries, will be advantageous to promote the sustainable management of the EEZ and will be supportive of the efforts made by the other SADC littoral neighbours in their attempt to curb uncontrolled and illegal exploitation of marine resources (Wingrin, 2018). The studies by Walker (2015c; 2020) proves that that the current reality indicate that SADC, and more specifically the SAN will no longer be deemed the entity responsible for national security but as a typical coast guard element, which presents clear conflict with the "deep sea" capability

that it currently possesses. The SAN could, however, act in support or be used as the mandated platform in support of constabulary patrol or for force interdiction operations, with the Namibian and Mozambican navies being afforded to have their own members on board for capacity building. The current financial constraints imposed on the SANDF, the Namibian Navy and the Mozambican Navy however, does not favour any exorbitant military expansion plans and for that reason it is a geo-strategic and geo-political imperative that improved transboundary relations be promoted and maintained with other SADC littoral navies (Wingrin, 2018; 2019). This was very evident in the deliberations during the 10th meeting of the Conference of the Parties (COP 10) to the CBD, held in Nagoya, Japan, October 2010, where a new era of biodiversity conservation was once again emphasised (CBD, 2019).

During COP 10, it was agreed that all governments must prioritise and achieve

> long-term conservation, management and sustainable use of marine resources and coastal habitats; establish and effectively manage marine protected areas, in order to safeguard marine and coastal biodiversity … through appropriate application of the precautionary approach and the use of integrated marine and coastal area management, marine spatial planning, impact assessment, and other available tools (CBD, 2019).

The reality of the maritime security constabulary expectation is, however, not possible in a country such as South Africa, where neither the national fiscus nor the ruling government supports any extraordinary defence expenditures and where sentiments do not favour any continued defence prioritisation. This was reiterated more than once by the Minister of Defence and Military Veterans. The sentiments by Ms Mapisa-Nqakula are also supported by Rear Admiral Hlongwane in the sense that terrorism presents a real threat to the Southern African region and while some SADC countries are prioritising the acquisition programmes of their militaries, it appears that South Africa is on a path of reduced defence expenditure. This does not bode well for the SAN in its current or future visionary thoughts. The status quo in the DOD and more specifically the SAN clearly presents a bleak prospect for the SAN to be perceived and expected to play a leading role as custodian and pioneer of an improved secure and stable AMD within the SADC context (Wingrin, 2018).

The trend of the South African government towards constraining the capabilities of the SAN does not bear resemblance of a littoral state showing proof of custodianship when considering the urgency that the rest of the African countries are giving to sustainability and the value of the oceans, which require a multi-stakeholder approach; albeit not equally in terms of the

mandate and priority given to the respective navies. The recent gathering of 4 700 heads of state, corporate leaders, and UN officials supported by members of society in Nairobi over the period 11 to 15 March 2019 presents an improved indication on the discourse that the world's top organisations on the environment are taking. The meeting was the 4th UN Environment Assembly that addressed the theme "Innovative Solutions for Environmental Challenges and Sustainable Consumption and Production" (UNEP, 2019a).

The main aim of the 4th Assembly was to focus on sustainability, of which the protection and sustainable use of the marine environment comprised a key focal area. It is important to note that this Assembly's mandate allowed it to define the global environmental agenda. The decisions made here ultimately determined the goals of the Paris Agreement and the 2030 Agenda for Sustainable Development (UNEP, 2019a). The profound statement delivered by UNEP's Acting Executive Director, Ms Joyce Msuya, resonated the overall sentiment of all delegates in the sense that time is of the essence, and that commitment does not necessarily equate to accountability. The importance of sustainability in the socio-economic context of the AU, and more so the maritime sector, represents the main catalyst for improved inland economic growth and stability. The research conducted by Walker (2017) in terms of the maritime strategy that needs to be reviewed by the AU if a blue economy is to be effectively planned, implemented, and maintained, proposes the following key considerations:

- The term "blue economy" needs to be clearly defined in order to delineate objectives and responsibilities per stakeholder as a way forward within the context of Agenda 2063.
- A physical organisation needs to be established that focuses on maritime affairs, which consists of a body of subject matter experts in support of the AU Commission in implementing Agenda 2063.
- The establishment of a strategic task force needs to be clarified. The involvement of all AU member states and subsequent RECs requires pertinent consideration as part of a greater decision-making process.
- The review of AIMS 2050 and thereafter a road map in terms of implementable activities will provide more proof of commitment and lead to heightened support and funding (Walker, 2017).

The objectives set by the AIMS 2050 higher order cap stone document are very explicit in terms of directing lower order entities on the holistic view that is taken towards broad

empowerment and concurrently in a sustainable manner. These objectives include the following and resonate with the objectives of UNEP:

- "Diverse illegal activities which include toxic waste dumping and discharge of oil, dealing in illicit crude oil, arms and drug trafficking, human trafficking and smuggling, piracy and armed robbery at sea;
- Energy exploitation, climate change, environmental protection and conservation and safety of life and property at sea;
- Research, innovation and development; and
- Maritime sector development including competitiveness, job creation, international trade, maritime infrastructure, transport, information, communication and technology, and logistics" (UNEP, 2019b).

The underlying reality for sustainability in the AMD is continuous environmental maritime security from a maritime point of view, as the oceans represent the gateway to all of Africa's trade and stability. The presence of naval strategic assets in the EEZ not only acts as a deterrent but also provides proof of the country taking ownership of its maritime domain in terms of the resources that can be used for economic stability and growth.

The meaning of the term "maritime" is best explained as referring to or involving ships or shipping – in a nautical or marine sense. It can thus be inferred that those who utilise the sea off the coasts are included in this term. According to the *South African Naval General Publication 100*,

> 'maritime environment' may be defined as 'the oceans, seas, bays, estuaries, islands, coastal areas, and the airspace above these, including the littorals'. Although there is no clear or universally accepted definition of littoral, it remains widely agreed that it is 'the region of the shore of a lake or sea or ocean'. It is widely accepted as a region from 200 miles inland to 200 miles out to sea (SAN, 2019).

For littoral states and the roles of navies being researched in this study, it is not only important to ensure that naval doctrine allows for interoperability but also that consensus exists regarding a shared agreement in terms of exercising combined custodianship over littoral maritime domains in support of improved maritime security stability.

Although the research presented by Potgieter (2012) as well as the recent Blue Sustainable Report compiled by the Sustainable Blue Economy Conference Technical Documentation

Review Committee (Government of Kenya: Ministry of Foreign Affairs, 2018) postulates that not enough focus is directed towards environmental security in the Indian Ocean, the researcher found that it is applicable especially to marine protection among navies within all maritime domains, and, especially for the purposes of this research, in the oceans surrounding Southern Africa.

The increase in global prosperity and the subsequent rapid advances made on a technological level, intensified by competition for resources in and under the oceans, provide sufficient tangible proof that all littoral stakeholders need to share in a neo-regional MPP framework in order to protect the respective national natural marine resources. This holds true especially in the case of fishing within the African context where fishing is an important source of both protein and income to Africans. From an employment point of view, the fishing industry provides employment and a source of income to an estimated 10 million people.

The same trend is found in the SADC countries on the western coast, where Namibia and South Africa are advantaged by the cold Benguela Current. Figure 4.4, provided by Potgieter (2012), indicates that South Africa and Namibia, as part of the SADC, are by far the most advantaged by what the fishing industry provides in terms of gross domestic product (GDP). The latest reports by the United Nations Environmental Program indicates that artisanal fisheries in Mozambique contribute more than $6.2 million that equates to 8 percent of the country's GDP in 2018 (United National Environmental Program, 2019c).

Figure 4.4: Value of contribution to gross domestic product (GDP) in the SADC
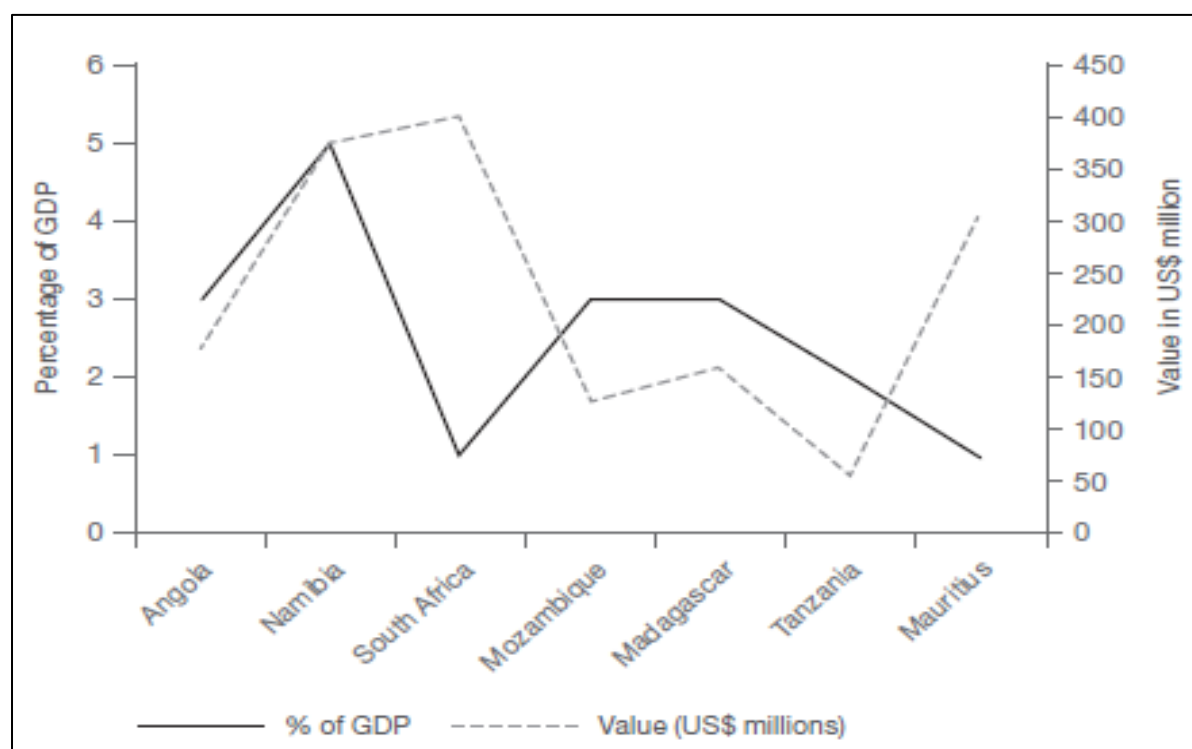
Source: Potgieter (2012)

It is furthermore important to note that African countries especially are the most susceptible to exploitation and plundering of marine resources due to the fact that they lack the ability to effectively and continuously patrol their own EEZs due to their weak emerging economies and insufficient maritime capabilities (Stable Seas, 2021). The contribution to GDP by commercial fishing is especially high in the case of Namibia and Mozambique and to lesser extent in South Africa. It therefore stands to reason that the aforementioned littoral states are more dependent on a secure and stable EEZ and require a maritime force to protect the sovereign marine resources. The lacking maritime force is observed within the South African context where the SAN is currently the hardest hit in terms of budgetary constraints and an overall lack of political will to capacitate the SAN in order to protect its EEZ and therefore its blue economy (Potgieter, 2012; Walker, 2017). The situation in SADC is further exacerbated by the financial scandal in the Mozambican maritime industry that relates to reports of fraudulent transactions involving procurement of vessels and maritime surveillance projects (Mail & Guardian, 2019). The current perceived lack of political support necessitates African navies to explore neo-regional transboundary opportunities that could strengthen their ability to support one another in constabulary roles, support their national lead agencies in protecting littoral coastlines and oceans in the EEZs, gradually share and explore integrated MPP frameworks, and seek

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common ground in terms of capacity building through regional and international joint exercises/operations.

The analysis conducted by Bueger (2020) in the book review of *Grey and White Hulls* by Bowers and Koh postulates the possibilities of opting for a "grey war zone". This is an attempt to address maritime security governance between the police and the military. This book, however, only focuses on littoral states that are deemed developed and with strong economies and does not consider emerging economies such as those in Africa or Southern Africa. It is therefore still necessary for SADC navies to explore and articulate regional and national imperatives in terms of the respective political principles.

The inference can be made that the SAN, supported by the limited support of the Mozambican and Namibian navies, concomitantly has both a strategic advantage in terms of its geo-strategic position but also has a compromising military-political challenge to bridge based on the prerequisite naval platforms it requires in order to conduct its constabulary patrols in the rough sub-Antarctic waters for periods of up to three months. Naval platforms with sufficient endurance and sea-keeping capability are an absolute must but can only be motivated by military principals that can articulate the need to political principals on the basis of continued economic growth and stability. The neighbouring littoral navies of Mozambique and Namibia are consequently also dependent on their EEZs for economic growth and stability, and for that reason coordination, cooperation, and favourable diplomatic liaison are quintessential to secure the southern ocean space and maritime borders of Southern Africa.

It is, however, an oceanographic and physical reality that there are no border lines at sea. The effective governance and protection of the maritime domain are a national, regional, inter-continental, and international security and environmental imperative, which necessitates a cooperative approach (SAN, 2019). The role players that affect ocean governance, marine protection, and sustained economic stability are increasingly assuming an asymmetric profile and support the notion that navies need to improve and increase their interoperability and "jointness" if a secure EEZ and high seas maritime domain are to be achieved (Walker, 2018).

4.2.3   Non-state and asymmetrical threats

The documentary research provides sufficient proof that the number of non-state actors that affect maritime security has grown significantly. The intricate network of alliances between international criminal organisations is increasingly posing a greater threat to governments that

lack the capacity to ensure sovereign rule and effective governance of all natural resources, including the ability to project their presence in their respective EEZs. The result is that these criminal organisations can continue uninterrupted to exploit and plunder the littoral and high seas maritime domain (Potgieter, 2012; Walker & Reva, 2020).

Walker and Reva (2020) and Bueger (2020) postulate that the prominence of navies shifting away from archaic conventional responsibilities to more constabulary roles is due to the complexity of contemporary maritime threats, which necessitates a change in the conventional role. Historical conflict between warring naval parties has now been replaced by navies protecting the sea routes, escorting merchant vessels, and projecting their naval presence in maritime waters that present future economic gains, such as the IOR. The overarching motivation is of course to maintain good diplomatic relations, as well as so-called "good governance" of the high seas. It is, however, a common phenomenon for navies to use naval diplomacy in order to coerce other maritime actors to consider possible improved alliances, neo-regional transboundary agreements, and capacity building. The importance of utilising the respective naval forces to secure and maintain good governance of the littoral waters, as well as high seas, will therefore be conducive to regional and eventual international stability (SAN, 2019; Walker & Reva, 2020).

4.3 THE ROLE AND IMPACT OF SOUTH AFRICA, NAMIBIA, AND MOZAMBIQUE IN THE LITTORAL SPACE OF THE SADC

The expectation for navies to execute and conduct the mandatory constabulary role bodes as a fair warning to SADC navies, especially the southern-most navies of the AU, namely Namibia, South Africa, and Mozambique, who need to take heed of regional, inter-continental, and international maritime security trends.

4.3.1 The role of the South African Navy (SAN) as a part of the SADC littoral states

The literature and documentary study thus far have provided proof of the vast coastline that the SAN is mandated to protect in terms of maritime sovereignty. The South African Maritime Zones Act (No. 15 of 1994) presents a clear statutory framework for the impact of the EEZ (out to 200 nm seaward), as well as internal waters (waters to landward of the baselines), territorial waters (12 nm), the contiguous and maritime zones (24 nm), and the continental shelf (see Figure 4.5). The abovementioned zones reside within the South African jurisdiction "for

monitoring, control and enforcement of state authority" (SAN, 2019). The enormity in terms of the surface area that needs to be monitored and patrolled up to 200 nm by each respective littoral state presents very real challenges based on both the political aspirations of the AU by means of AIMS 2050, as well as the reluctance of the various SADC littoral states to articulate the urgency of the blue economy as a regional and national imperative.

The researcher, in his appointment as an environmental manager in the SAN, had various engagements with members of the strategic naval command cadre involved in policy making. During these engagements, the senior naval policy makers who were interviewed responded with a positive but careful approach to the importance of establishing an NTMPPF among the SADC navies of South Africa, Namibia, and Mozambique.

Figure 4.5: Maritime zones of South Africa
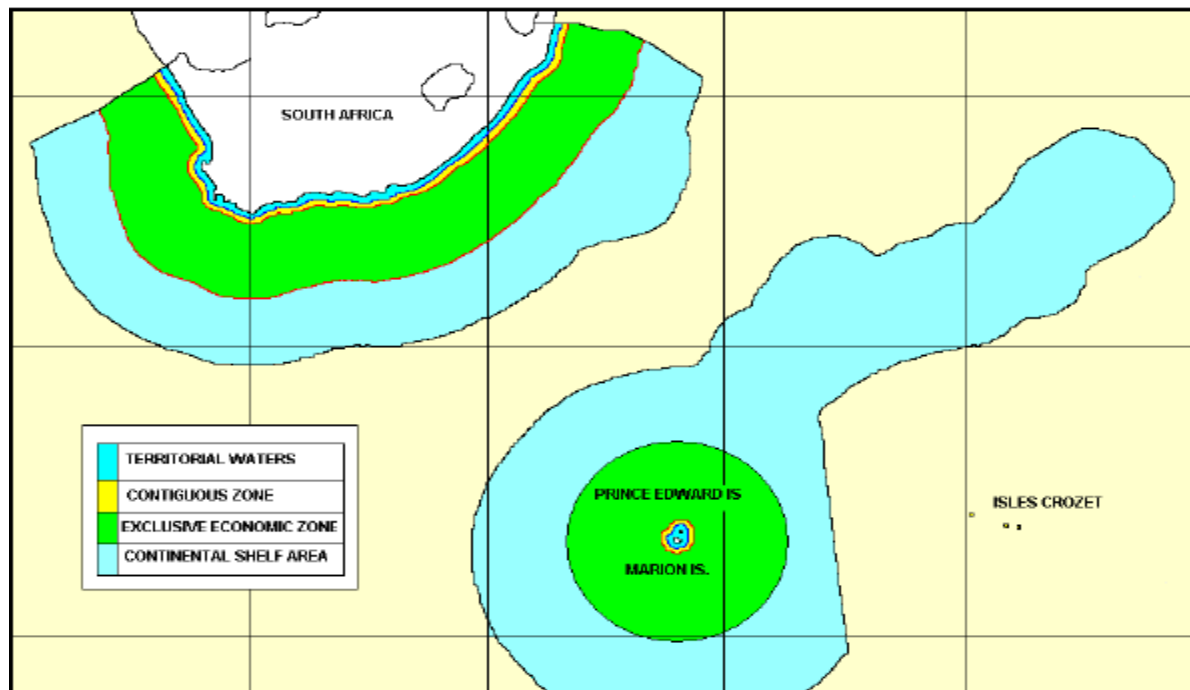
Source: SAN (2019)

These military subject matter experts, however, all shared the same sentiment that the budgetary constraints imposed on the SAN bear heavily on its ability to meet the operational requirements set for it by the South African government. The naval strategic outputs expected from the SAN are directly compromised by the increasing budgetary limitations imposed on the SAN. The SAN is fully aware of the regulatory obligations that rest on it, as well as the regional and international legal obligations that it needs to heed. The challenge lies in the fact that with a coastline of almost 3000km, the ability to project its naval power is increasingly difficult, and more specifically in support of regional stakeholders such as Namibia and

Mozambique (Personal interviews with members of the Naval Command Council and SANDF Training Command, 2019). The concept of using an NTMPPF as the basis to improve regional stakeholder engagements motivates the utility of the SAN as a security platform in exercising its constabulary duties within the EEZ and ABNJs. Also, the critical requirement to protect the EEZ and so help the South African citizenry with a secure blue economy needs to be articulated at the highest level in the AMD.

4.3.1.1 Environmental impacts on the South African littoral area

The National Environmental Management Act legislative framework (see Appendix E) is very specific in terms of protecting the marine resources of the South African coastline, including Namibia and Mozambique as SADC member states. The member states of the SADC SMC are supportive of the development of an NTMPPF (Modise, 2019; RSA: Department of Government Communication and Information Systems, 2020). The researcher noted that the absence of marine protection in the maritime security as part of the SADC MSS needs to be further investigated and researched as it presents a neutral environment for SADC navies to engage one another. The researcher posits that as the SAN environmental policy (see Figure 4.6) addresses the factor of marine custodianship and sustainability, it is a policy imperative to also integrate the SAN environmental policy into regional MSSs and policy frameworks. The neo-regional maritime security role and obligation that rest upon the SAN are, however, directly dependent on the existing political will and leadership of the SANDF, SMC, and SADC as a whole for its execution.

Wingrin (2018) emphasises the need for the SAN, as well as other government agencies such as the Department of Transport and the Department of Agriculture, Forestry and Fisheries, to consider a cross-sectoral and multi-stakeholder approach as South Africa increasingly acknowledges its status as a maritime nation. The protection of the littoral area cannot take place without the SAN providing maritime security and defence as these patrols need to monitor and report illegal fishing, pollution, and other maritime criminalities.

The SAN, however, cannot conduct these functions at regional SADC level without the support of its littoral neighbours and it is for this reason that the DOD

Environmental Policy Statement makes specific mention of interested and affected parties (see Figure 4.6).

4.3.1.2 Needs analysis based on current ocean governance and capacity-building requirements in South Africa

South Africa's geo-strategic position is undeniably both an advantage and a vulnerability that needs to be considered in terms of the so-called "island economy" or "blue economy" that focuses the economic drive on the benefits of developing port infrastructure, promoting foreign direct investment through maritime trade and developing policy instruments in favour of a ocean economy. The SAN has over recent years progressed in terms of its commitment to initiate the integration of environmental management systems into its command structures.

Figure 4.6: South African Department of Defence (DOD) Environmental Policy Statement
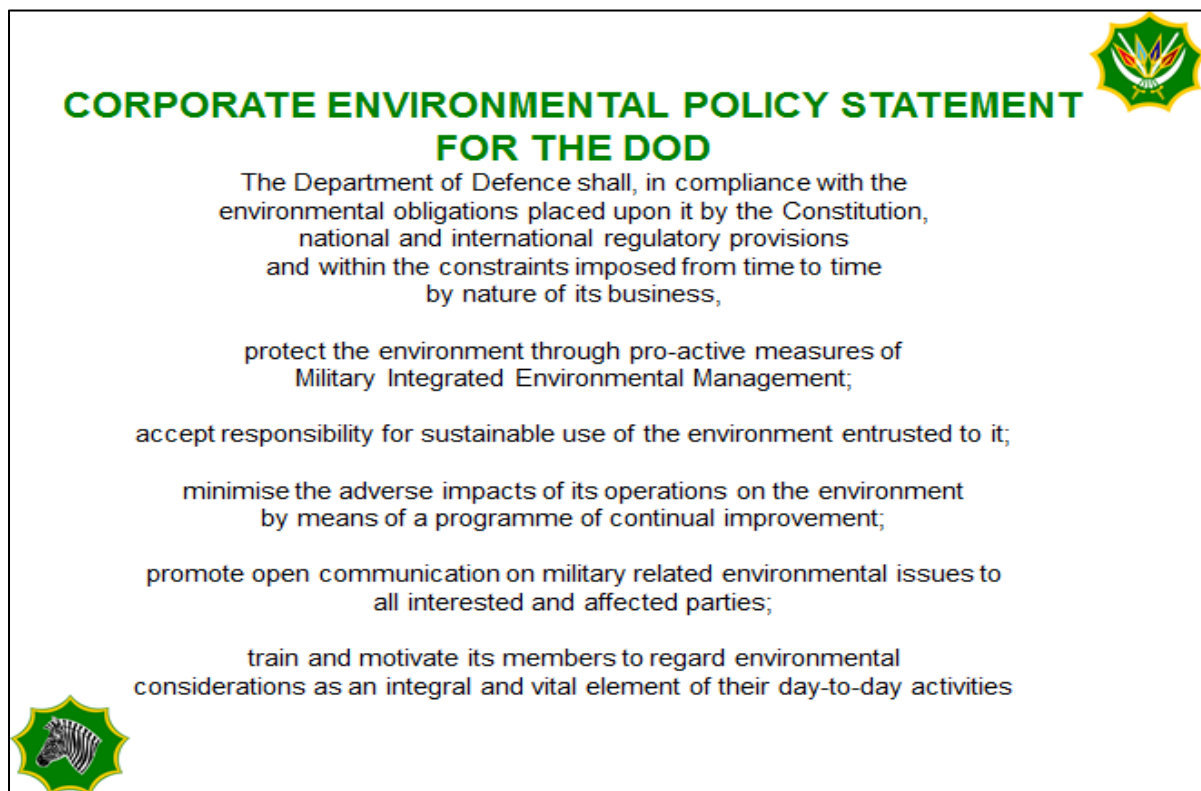
Source: RSA: DOD (in Kwak, 2011)

The naval environmental protection doctrine (based on Figure 4.6) currently in the SAN is increasingly influenced by the SDGs of the UN, as well as the impetus towards securing the EEZ in order to support SDG14, as well as Outcome 10 of Operation Phakisa. There is, however, considerable reason for concern, according to Wingrin (2018), as the capability and

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resources of the SAN are under severe constraints. The SAN is compromised in its mandate to protect and patrol its littoral area and for that reason needs to consider transboundary agreements that will mitigate cross-border irregularities.

The subsequent interaction over the past decade between Namibia, South Africa, and Mozambique was therefore inevitable and for that reason the SMC presents a diplomatic platform for all SADC navies to engage one another in ensuring peace and stability in the region. The maritime security challenges are instrumental to the sustainable development of the respective economies. This means that the SAN will provide assistance in various forms to ensure safety, security, and stability in Africa (SAN, 2019).

A draft SADC MSS presents a very clear picture in terms of the following ends that are expected to be pursued:

- Securing maritime trade in the SADC Indian Ocean and contiguous areas;
- Promotion of good order at sea in the SADC Indian Ocean and relevant contiguous areas; and
- Preventing the escalation, and rolling back, of piracy and maritime crime in the SADC Indian Ocean and relevant contiguous areas.

The importance of maintaining equilibrium regarding the state of maritime security within the SADC requires that both the Indian Ocean and Atlantic Ocean SADC waters need to be monitored and controlled. In order to answer the research questions and achieve the research objectives, it is important to understand the role and impact of both Namibia and Mozambique.

4.3.2   The role of the Mozambican Navy as a part of the SADC littoral states

The research conducted by Gove (2011) indicates the regionally important role that Mozambique as a member of the AU, SADC, SADC SMC, and Indian Ocean Naval Symposium (addressing maritime security in the Indian Ocean) fulfils based on its geo-strategic location. The influence that Mozambique could exert on the governance of the ASCLME, which flows in a northerly direction along its estimated coastline of more than 2700km, and its continental shelf, covering an area of 120 000 km², is also important. From both a Mozambican governance point of view and intent towards a blue economy based on the SADC Regional Indicative Strategic Development Plan (RISDP) that was published in 2020, it is postulated that structured policy frameworks need to be implemented and maintained in

order to ensure that all stakeholders are in support and adhere to the political, economic, and environmental imperatives (SADC, 2020).

According to Gove and Mechisso (in Gove, 2011) as well as SADC (2020), the coastal and marine environment of Mozambique plays a pivotal role in support of the following imperatives:

- "Most important **coastal settlements** of the country;
- Most important **artisanal and commercial fisheries**;
- Important **ports**, which are not only important for the country, but also for the SADC (Southern Africa[n] Development Community) region, including Swaziland, some parts of South Africa (like the provinces of Mpumalanga and Limpopo), Zimbabwe, Zambia, DRC (Democratic Republic of [the] Congo) and Malawi;
- Important **coastal agriculture**;
- Main **industrial areas**, mainly in the cities of Maputo and Matola (including the industrial area of Beluluane), Beira and Nacala-Porto;
- **Coastal mining**, mainly heavy sands in Moma coastal district, in Nampula province, and natural gas in Pande and Temane (Inhassoro coastal district), in Inhambane province, which are respectively exported to Europe and South Africa;
- **Coastal tourism**, mainly in northern and southern Mozambique, being one of the fast-growing sectors in Mozambique, and becoming increasingly important for the national economy; and
- **Coastal transport** (the main road linking the country from South to North is located on the coast, and coastal shipping)."

The importance of integrating and ensuring sufficient impetus in the drive towards the blue economy within the governance structures of Mozambique is a strategic objective based on the scrutiny by SADC states. The important role that the Mozambican coastline plays in its national economy and the interest that neighbouring littoral states will show based on the plethora of activities taking place along the coastline place a responsibility on it to manage and control the various environmental impacts that these activities generate.

4.3.2.1 *Environmental impacts on the Mozambican littoral area*

The list of current environmental impacts that affect the coastal and marine life of Mozambique includes, but is not limited to, coastal erosion, pollution from untreated sewage, uncontrolled spillage of effluent, oil spillage by ports and tankers that use the Mozambique Channel, overexploitation of fish stocks, and in general the unsustainable management and governance of the coastal and marine environment (Gove & Mechisso, in Gove, 2011). This is further exacerbated by reports of fraudulent transactions involving tuna vessels and a maritime surveillance project (Mail & Guardian, 2019). It is, however, important to note that the Mozambican government has not displayed absolute ignorance or shown a disregard for the importance of maritime instruments that could improve the state of ocean governance. It is still in the process of reaching an agreement with South Africa on its maritime boundary, as previously mentioned (SADC, 2020). It has also acquired two patrol vessels from the Indian Navy in its drive to improve coastal patrols (Defence Web, 2019c)

An important maritime boundary that needs to be agreed upon is with Madagascar and France. Mozambique has proven its commitment to ICM by adopting policies on ICZM. It is, however, the offshore hydrocarbons that are increasingly becoming a contentious issue, particularly in the Northern Mozambique Channel. It is with specific reference to the "impact of the rapidly expanding oil and gas operations in proximity to vulnerable coral reef areas, which led to the establishment of the Northern Mozambique Channel Initiative in 2015, a partnership between Comoros, Madagascar, Mozambique, and Tanzania. The objectives included:

- Laying the foundation for an integrated management of marine resources as well as for MSP.
- Planning and adoption of environmental and social best practices in the oil and gas sector to reduce impacts on biodiversity and ecosystem services.
- Improving and sharing successful models and practices for resource management by local communities" (Kelleher, 2019).

The most notable meeting that was recently held in Mozambique was the "Crescendo Azul" – Growing Blue: Sustainable and Shared Exploitation of Oceans. The overarching aim of the conference was to blend the strategy of AIMS 2050 with SDG 14 and to attract additional foreign indirect funding from the United Nations and the World Bank. The opening remark of

President Nyusi referring to a move towards a blue economy was notably observed (Frey, 2019; Kelleher, 2019).

The Mozambican government has either signed or ratified 16 international maritime legal instruments that focus mainly on marine pollution and UNCLOS. Table 4.7 provides a summarised version of the legal instruments adopted, signed, and ratified by Mozambique. The regional and AU pressures that have been exerted on Mozambique are visible in the number of legal instruments that have been ratified and not only accepted as signatories.

It can be deduced that the growth prospects of the littoral coastal area have compelled Mozambique to give specific thought to the economic and socio-economic prospects after bearing the brunt of extended periods of conflict within in its borders. The stability that revised policy frameworks might present is therefore not only a national but also a regional economic imperative.

Muchemwa and Harris (2019) posit that the *Frente de Libertação de Moçambique* (FRELIMO) or Mozambique Liberation Front, the *Resistência Nacional Moçambicana* (RENAMO) or Mozambican National Resistance, and the civil society organisations of Mozambique are increasingly disrupting all attempts for reconciliation in Mozambique. The ruling Mozambican government, with the support of the SADC, has an opportunity to negotiate with RENAMO if a political process is to be considered with the input from the various government parties and a strong cross-sectoral engagement (Muchemwa & Harris, 2019).

The reality at the current point in time is that the political volatility and insurgencies in the north of Mozambique do not provide an ideal political or economic environment for transboundary agreements. The stabilisation and removal of any national threat must first be addressed before neo-regional opportunities can be considered.

The role that the SAN fulfils in the Mozambique Channel to patrol the littoral area and to act in partnership with the Mozambican Navy does, however, provide the political diplomacy that is required for future transboundary agreements to be considered.

Table 4.1: Maritime legal instruments signed by Mozambique

Name of International Instrument	Date of Ratification	Citation and Sources
International Accord on the Conservation and Management Measures of High Seas Resources, 24th April 1999	16th of December 2008	Resolution 21/2008 of 16th of December (BR 50, I Series, 5th Supplement pp 414 (41-51)
Dispositions of UNCLOS regarding the conservation and management of fish straddling stocks and population of highly migratory fish	16th of December 2008	Resolution 19/2008 of 16th of December (BR 50, I Series, 5th Supplement, pp 414 (11-41)
Protocol related to the privileges and immunity of international authorities of deep seas	15th of October 2008	Resolution 38/2008 of 15/10/2008 (BR 42, I Series of 15th of October 2008 pp 337-344)
Emends to the Annex of the International Convention for Saving Human Life at Sea, 1974 SOLAS (74) adopted by Resolution n. 1, of 12 of December 2002,	14th July 2004	Resolution 25/2004 of 14/07/2004 (BR 28, I Series, Suppl. of 14th of July of 2004, pp 262 (1-16)
Adhesion to international Convention on preparation, combat and cooperation against hydrocarbon pollution, OPRC 90	25th February 2003	Resolution 6/2003 of 18/02/2003 (BR 7, I Series, 3rd Suppl. of 25th February 2003, pp 40(148).
Adhesion to International Convention for prevention of pollution from ships 1973 and its protocols of 1978-MARPOL 1973-1978	25th February 2003	Resolution 5/2003 of 18/02/2003 (BR 7, I Series, 3rd Suppl. 25th February 2003, pp 40 (19-148)
Ratifies the Adhesion to the Protocol for Suppression of Illicit Acts against the Security of Fixed Platforms located in the Continental Shelf, Rome (Italy), 10 of March of 1988	2nd of October 2002	Resolution 75/2002 of 02/10/2002 (BR 40, I Series, Suppl. of 2nd of October of 2002, pp 322 (35-38)
Ratifies the adhesion to the Convention for Suppression of Illicit Acts against Maritime Navigation Security, Rome (Italy), 10 of March of 1988	2nd of October 2002	Resolution 74/2002 of 02/10/2002 (BR 40, I Series, Suppl. 02 October 2002, pp 322 (27-35)
Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, 27 November 1992	6th November 2001	Resolution 53/2001 of 6/11/2001 (BR 44, I Series, 2nd Supplement, 6 November 2001, pp 236 (33-49).
International Convention on Civil Liability for Oil Pollution Damage, 29 November 1969	6th November 2001	Resolution 52/2001 of 06/11/2001 (BR 44, I Series, 2nd Suppl, 6th November 2001, pp 236 (21-33).
Protocol on Bio safety, 29 January 2000, A.T.N.I.F. 2000 No. 4, 39 I.L.M. 1027.	21st of December 2000	Resolution 11/2001 of 21/12/2001 (BR 51, I Series, 6th Suppl. 21st December 2001, pp 250 (64-74).
United Nations Convention on the Law of the Sea, 10 December 1982, and the Agreement Relating to the Implementation of Part XI of the UNCLOS	26th November 1996	Resolution 21/96 of 26/11/1996 (BR 47, I Series, 6th Suppl., 28 November 1996, pp 236 (137-250).
Adhesion to the Indian Ocean Marine Economic Scientific and Technical Cooperation Organization - IOMAC	24th of September 1991	Resolution 10/91 of 24/09/1991 (BR 38, I Series, Suppl. 24th September of 1991, pp 238 (1-9)
Ratifies the Agreement celebrated between the Government of the Peoples Republic of Mozambique and Government of United Republic of Tanzania, signed on 28th December 1988, related to terrestrial boarder and delimitation of marine boarder between the two countries	18th September 1989	Resolution 11/89 of 18/09/89 (BR 37, I Series, 3rd Suppl. 18th September 1989, pp 348 (9)
Adhesion to the Convention on International Regulation to	28th December	Resolution 11/88 of 28/12/1988 (BR 52, I Series,

Source: Gove (2011) & African Union, 2020a

4.3.2.2 *Needs analysis based on current maritime governance and capacity requirements in Mozambique*

The absence of infrastructure, exacerbated by failing governance frameworks, lacking judicial systems, the struggling economy, and disjointed positioning of specialists to advise the government all contribute to the current position of the Mozambican state not being able to effectively take control of its coastal and maritime environment (Gove, 2011; African Union, 2020a). Gove (2011) as well as Stable Seas (2021) furthermore found that the "Ministries of Fisheries, National Defence, Internal Affairs and Transport and Communication share the policy for Monitoring, Control and Surveillance (MCS) of Fisheries, and its Implementation

Strategy, Resolution 26/2008 of 17/09". Recent progress in mitigating the conflict in Mozambique includes the cooperation agreements signed to establish MDACs to share information in Mozambique and Tanzania (World Economic Forum, 2020). It is also important to note that although the Mozambican Navy is visibly not on the same level of operational preparedness as the SAN and the Namibian Navy, it is confirmed that Mozambique has agreed to spend €200 million on 30 patrol ships from France, although this turned into financial scandal as previously alluded to. It is, however, argued that a fully operational navy takes time to be effective in its constabulary and diplomatic roles and therefore the strategy followed by the Mozambican Navy in support of improved ocean governance might seem more like a wish list than being pragmatic and realistic (Stables Seas, 2021; World Economic Forum, 2020). The Stables Seas Index indicates that the Mozambican Navy has no capability to render operational support to its regional littoral stakeholders although the Mozambican economy is directly impacted upon by maritime security.

It could be postulated that there is a definite interaction between the respective government departments based on the research provided, but that the actual implementation of these policy frameworks requires a more assertive drive to allow for synergy to be achieved by all the relevant governmental stakeholders. The inference could be made that despite the complexity of achieving synergy between the respective government departments, the Mozambican government is well aware of the need to create enough peace and stability in order to cooperate with its regional SADC neighbours, which include South Africa and Namibia.

4.3.3   The role of the Namibian Navy as a part of the SADC littoral states

Namibia has progressed significantly over the past three decades in terms of ratifying cornerstone legislation and becoming a signatory to various regional and international conventions. At the national level, the ratification of marine protection legislative instruments is observed to be significant. The legislation varies from the Marine Resources Act (No. 27 of 2000) as amended by Act No. 9 of 2015 that focuses on the marine ecosystem and the responsible and sustainable management thereof, to the Territorial Sea and Exclusive Economic Zone of Namibia Act (No. 3 of 1990) as amended by Act No. 30 of 1991 (Legal Assistance Centre, 2020a; 2020b). The Defence Act (No. 1 of 2002), however, acknowledges and makes specific reference to the defence of the territorial integrity and the national interests of Namibia throughout the territorial sea and EEZ of Namibia (Legal Assistance Centre, 2020b). It is also noted that the Namibian Ministry of Works and Transport encourages cross-

sectoral, regional, and international cooperation in its National Marine Pollution Contingency Plan and this was approved in April 2017 (Republic of Namibia: Ministry of Defence, 2019a). The cross-sectoral integration of the Namibian Defence Force (NDF) into other government departments can be found in terms of the functions expected of the NDF as part of the National Marine Pollution Contingency Plan, which include the following:

- The NDF will provide logistical and labour support during oil pollution response operations.
- The NDF will transport equipment, materials, and personnel that combat oil pollution to and from pollution incidents, where polluters or commercial operators are unable to do so.
- The NDF will provide naval vessels and personnel for recovery operations while at sea.
- The NDF will render assistance to vessels in distress.
- The NDF will provide communication infrastructure (Republic of Namibia: Ministry of Defence, 2019a).

The increasing political intent and governmental progress made towards improving the ocean governance of the Namibian EEZ, even if it is deemed as insignificant measured against global standards, can be argued within the context of the SADC as proving that custodianship is being taken by the Namibian government to contribute to improved ocean governance and political stability within the SADC region.

The research presented in this dissertation thus far confirms the Namibian situation as to its political position towards its own foreign and defence policy as it emphasises

> the principles of peaceful co-existence and co-operation with other countries and in the operation of international law. The day-to-day guarantee of security lies in the maintenance of international order and in particular, in the regional stability. Defence relations with neighbours and the international community as a whole are good and the Ministry of Defence and Namibian Defence Force will extend military co-operation and links as far as is practicable (Republic of Namibia: Ministry of Defence, 2019a).

Here too an inference can be made that the Namibian foreign and defence policy statements support NTMPPFs and are in favour of improved policy alignment (Republic of Namibia: Ministry of Defence, 2019b). Very specific mention is made of inter-ministerial cooperation and more specifically the willingness to share best practice and doctrine with other willing

defence forces such as those of South Africa and Mozambique (Republic of Namibia: Ministry of Defence, 2019a).

The Namibian Navy, although it was only inaugurated in 2004 as a full-fledged navy, has already made strides in its agreements over the past 16 years with other nations such as Brazil and military entities such as China's People's Liberation Army (Defence Web, 2017). These agreements entail the development of both officers and non-commissioned officers ("ratings") in different occupational directions, as well as taking receipt of two navy patrol vessels. The Namibian Navy is very clear in its mission, which is "To defend Namibia's territorial water, conduct naval operations in defence of the Republic of Namibia, and conduct operations other than war in support of the national interests" (Republic of Namibia: Ministry of Defence, 2019b). The Namibian Navy, however, needs to invest increasingly more into its high seas capabilities and its capability to exert power in its EEZ, and fulfil its diplomatic role on the west coast of Africa (Seabra, 2016). As a regional member of the SADC, the BCLME and as a littoral neighbour to South Africa, the Namibian Navy has a crucial role to play in future possible constabulary and diplomatic roles. The leverage that the Namibian Navy needs to establish by means of improved maritime security will support the drive by the Namibian government towards increased cross-sectoral development and will exponentially improve the willingness of other developing states such as Brazil to engage with Namibia.

According to Seabra (2016), the Namibian president in 2013 publicly referred to Brazil as being perceived to be in support of not only reaching agreements with Namibia but also investing in Namibia to be more autonomous. The status of the Namibian Navy within the SADC, although still in its "infancy stage", is largely the result of the learning curve it has attained through the strategic and organisational intervention of Brazil. The role of the Namibian Navy within the SADC is therefore strengthened by its concomitant commitment to engage in and sustain defence cooperation and to explore current and future opportunities across the South Atlantic Ocean. The preference is, however, that Namibia will give more consideration to South Africa than to Brazil, but this might be due to historical events and new infrastructure that the Namibian Defence Ministry is involved with.

A recent Namibian development (Defence Web, 2019a) includes the Namibian Defence Minister, Penda Ya Ndakolo, "who has commissioned a new jetty and naval base on Impalila Island in the Zambezi Region of the country". Although this does not reflect the importance of

developing the littoral zone, it does, however, provide compelling evidence that Namibia is aware that it must support and actively participate in securing any territorial water bodies.

According to Defence Web (2019a), this area was historically used by the SANDF before Namibia's independence. The NDF rehabilitated the site and completed it in October 2017. The importance of utilising established infrastructure for improving contemporary security challenges is clearly applied by Namibia and serves as a best practice for possible future consideration in terms of security challenges.

Ya Ndakolo made specific reference to ensuring that continuous focus is given to reducing the SADC security challenges, which include "unregulated fishing, poaching, theft and drug smuggling" (Defence Web, 2019a). Further to this development, the Namibian Navy erected a naval district that includes the Zambezi, Chobe, and Okavango catchment areas. This clearly can be interpreted that various Namibian government sectors need to be approached for ensuring an integrated approach with its regional states, as well as Zambia and Botswana. This regional cooperation also improves the move towards NTMPPF development. The willingness of Namibia to widen the involvement with regional states such as the development on Impalila Island speaks to improved cross-sectoral engagement, as well as considering jurisdictional, capacity-building, and disaster relief imperatives and opportunities along its littoral zone.

Historical evidence of the level of naval force capability, development, and force projection within the Namibian Navy is limited as it has had a brief timeline since its inauguration in 2004. It is, however, important to note that the Namibian Navy does not currently have sufficient naval assets or sufficient government funding to be effective in its constabulary role or to intermittently execute diplomatic roles along its littoral coastline in support of protecting its EEZ (Defence Web, 2017; Seabra, 2016).

Given the absence of current naval force projection by Namibia, NTMPPFs with regional members are even more important. The possibility of sharing best practice in terms of governance, improved interoperability with other naval forces such as South Africa, as well as capacity building is of paramount importance for a "young" navy such as the Namibian Navy. There are, however, developments towards maritime security in Africa such as the Abuja Declaration that was developed due to the convergence of various government, academia, and civil society stakeholders. The focus of the Abja Declaration was to achieve synergy on the understanding of maritime security given the plethora of stakeholders and to achieve inclusivity (Ukeje, 2015). The real significance of this declaration is in the fact that regional cooperation

between ECOWAS and the Economic Community of Central African States (ECCAS) took place, which promotes further regional cooperation throughout the AU.

Royeppen (2018) found that evidence exists of an established ECOWAS Integrated Maritime Strategy that presents a best practice guide to RECs such as the SADC in terms of a "holistic approach to maritime security and governance". The Abuja Declaration concomitantly focuses on the broad maritime security, as well as promoting good governance of the oceans through the strengthening of regulations and marine resource management. This presents Namibia with a framework for further regional cooperation and capacity building, especially within its naval environment. This is further proof that RECs across the AU and more specifically the SADC are increasingly prompted to follow best practice towards improved good governance of the oceans and coastal areas, interoperability among navies, and increased national impetus towards capacity building between RECs (Royeppen, 2018).

4.3.3.1 *Environmental impacts on the Namibian littoral area*

The Namibian government has over the past two decades repeatedly committed itself to multi-lateral deliberations and negotiations with both developed and developing states in pursuit of improving its socio-political and socio-economic status both as a member of the AU and as part of the SADC. It is fully aware of the exploitation that its littoral waters are experiencing due to its own inability to effectively patrol the contiguous waters and the greater Namibian EEZ (Defence Web, 2017). The defence agreement called the Zone of Peace and Cooperation of the South Atlantic (ZOPACAS), signed by both Namibia and Brazil in 2009, proved that self-interest was relinquished in favour of a more holistic and socio-economic agenda for both Brazil and Namibia in terms of reform of regional maritime security and stability.

Based on the shared strategic intent in ZOPACAS to improve regional maritime security and stability, it is evident that both parties agreed on a shared organisational framework, committing to financial support for such a venture, and ensuring that all planning and delineation of responsibilities could be used as best practice by the rest of the AU (Seabra, 2016). Namibia as a developing littoral state has increasingly provided proof of its ambition to become a prominent regional entity in its agreements towards protecting its marine resources but realises the importance of attracting foreign direct investment by utilising the littoral zone when setting up multi-lateral negotiations. This gradual autonomy projected by Namibia as a noticeable regional role player is indicative of its reluctance to engage South Africa to the

fullest extent in transboundary agreements. The dependency on each other within the ambit of the SADC and the greater AU, whether for political stability, economic gain, or regional stewardship of for example the oceans, requires both South Africa and Namibia to protect and be supportive of marine protection along the respective littoral areas.

4.3.3.2 *Needs analysis based on current maritime governance and capacity requirements in Namibia*

The importance of good governance among regional littoral stakeholders, especially in developing countries, must receive the highest priority. The dependence on marine resources compels littoral states such as Namibia to attract foreign investment by creating an economic climate that is conducive to improved governance and capacity building. The Namibia Institute for Democracy (2000), however, identifies several problematic governance matters that do not favour national, regional, or international support in the long term. Although Namibia has an abundance of natural resources, it seems that corruption and poor governance are undermining transparency and the drive towards a blue economy.

Namibia has as a developing littoral state committed itself to ocean governance, among others, in the BCLME in cooperation with Angola and South Africa. This multi-lateral agreement concomitantly proves that Namibia is aware of the importance to increase its control of the Namibian EEZ, as well as being receptive to capacity building in its own ranks in terms of the technical and professional meta-skills that are required to protect the Namibian marine heritage. According to the International Institute for Sustainable Development (2013), the BCLME region was worth an estimated US$54 billion per year in 2013 as it encompasses activities such as marine diamond mining, offshore oil and gas production, coastal ecotourism, and fishing and shipping. The current mandate of the Namibian Navy, with an estimated coastline of 1570km that needs to be patrolled and protected for the purposes of maritime security, requires expeditious intervention by both the Namibian government and its regional littoral SADC member states. It is due to the commitment of Namibia to the ocean governance multi-lateral agreement of the BCLME that the UNDP and the GEF have agreed to support the creation of the BCC (International Institute for Sustainable Development, 2013).

The Namibian government has recently progressed in its commitment to a blue economy by finalising a blue economy national policy as part of its fifth National Development Plan. The Namibian government has committed itself to have implemented a blue economy governance

and management system by 2022 in an attempt to harness the economic and ecological value of its EEZ in an environmentally sustainable manner. The importance of a blue economy to the Namibian government has also resulted in an active Inter-Ministerial Blue Economy Committee that is supported by an Inter-Ministerial Technical Blue Economy (UNECA, 2020).

The fact that Namibia is increasingly improving its marine protection governance structures, as well as the regulatory framework that provides the legal parameters for improved littoral protection, provides the impetus that future regional and international agreements require as proof of political intent and the drive towards sustainable management of marine resources. Although the Namibian Defence Act refers to defence of the territorial sea and the protection of national interests, it is evident that the Namibian Navy does not have the capabilities in terms of platforms to effectively execute its mandate.

It is therefore argued that although Namibia is on the "back foot" when MPPs regarding the blue economy are scrutinised, there is significant evidence that increased awareness and commitment are starting to manifest among politicians and policy makers towards improved MPP frameworks. The question, however, remains when the Namibian government will have the economic power to equip its navy sufficiently in order to provide effective maritime security and stability within the Namibian EEZ (Saunders, 2016; Seabra, 2016; UNECA, 2020). It is furthermore important to note that the implementation of a blue economy policy framework is more complex than once-off policy promulgation as it entails ocean management systems such as the integration of MPAs, ICZM, and MBPs that increasingly require considerable financial and organisational support and political commitment.

The spatial context of the AMD therefore requires the Namibian government to consider and plan for the overlapping of maritime boundaries and for this reason the naval cooperation and possible future transboundary neo-regional MPPs that could originate from regional agreements such as the BCLME require consideration from an improved governance point of view.

4.4   OCEAN GOVERNANCE

The discourse presented by Wahle *et al.* (in Singleton, 2009) elucidates the continued complexity of why the establishment, implementation, and management of MPAs as part of ocean governance are still underdeveloped. The ever-increasing phenomena of financial constraints and the reluctance of the citizenry towards government institutions in terms of trust

do not bode well for the archaic regulatory systems imposed by governments that bear resemblance to "command and control", which is a trait of governments in distress. The reliance of governments on their maritime industry and more so on the fiscal benefit of merchant navies visiting national ports creates tension when factors such as sustainability and protection of marine resources are factored in.

It is thus clear that a dichotomy exists between the sustainable management of marine resources and the global competitiveness among global shipping owners, which simultaneously welcome the GOC report on the protection of biodiversity on the high seas. The industrial activities involved in the shipping industry in terms of maintenance and repair, let alone the daily impact that vessels alongside and at sea have on the marine environment, result in very detrimental impacts on marine life. The International Chamber of Shipping, however, which represents 80% of all international shipping owners, is perceived to be very receptive and supportive of the proposals made by the GOC (International Chamber of Shipping, 2017). These proposals include, among others, the type of fuel used by vessels, which impacts on the cost of transport. Governments in terms of international maritime regulatory frameworks are expected to ensure that all legal prerequisites are met, but this implies that the navies of each sovereign state need to visibly integrate sustainability and the protection of marine resources into all their operations that includes constabulary roles.

The GOC's report contained recommendations that related to the development of regulatory frameworks based on pragmatic and mutually feasible objectives, and through a process of stakeholder engagement, that "were to be published in early 2014, shortly before the UN General Assembly began discussions on protecting high seas biodiversity – a commitment made at the Rio+20 summit in 2013" (International Chamber of Shipping, 2017). South Africa, as part of the SADC, as well as Angola and Namibia, are no strangers to regional oceanic governance, and the BCC, in combination with the plethora of multi-lateral ocean governance agreements and conventions, stands testimony to this.

The question, however, remains whether any of these three countries can actually secure their maritime domain as South Africa, for example, has an EEZ of approximately 1 530 000 km^2 out of approximately 7 000 000 km^2 SADC EEZ (SADC, 2021b). There seem to be heightened interest and pursuance of how maritime domain awareness needs to be integrated into the strategic thinking of all maritime stakeholders in the green economy, as well as the blue economy of the AU and the SADC. The researcher has repeatedly observed the reoccurrence

of how the maritime domain needs to be kept stable and safe for merchant navies to conduct their business across the oceans. The reality of the amount of sea hours spent by navies at sea is not supported with the current plea for financial support by the Defence Minister of the DOD in the South African context.

4.5   NEO-REGIONAL APPROACH TO MARITIME GOVERNANCE IN THE SADC

The SADC governments and their navies reviewed in this dissertation have committed themselves to blue economy policy instruments. South Africa chose Operation Phakisa, Namibia chose its fifth National Development Plan, and Mozambique is a signatory to the Nairobi Convention and is hosting its first conference, themed "Growing Blue: Sustainable and Shared Exploitation of Oceans" (UNEP, 2020). It is, however, important to note that policy and regulatory instruments in themselves do not remedy or improve maritime domain security or marine resources protection (UNECA, 2020). The development of the National Oceans and Coastal Information Management System (OCIMS) under Initiative 5 of Operation Phakisa for example focuses on the sustainable governance of the maritime industry along South Africa's coastline, with all the major ports being frequented by foreign merchant vessels (see Figure 4.7). The intent of government is to improve the current "sea-blindness" and improve the maritime domain awareness by promoting the consolidation of all maritime stakeholders, thereby achieving sustainable ocean governance.

Figure 4.7: Eight major commercial ports in South Africa
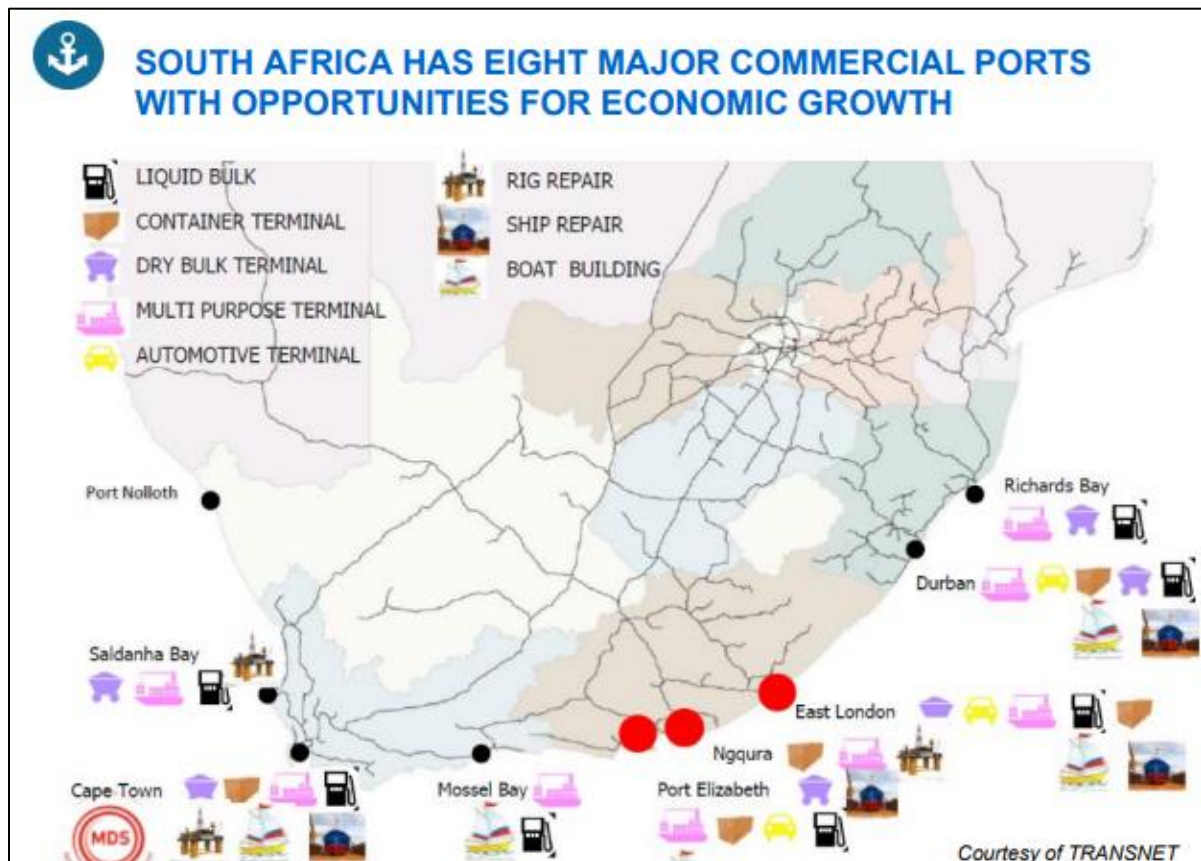
Source: RSA: Department of Environment, Forestry and Fisheries (2019)

The improvement of compliance and enforcement is, however, directly dependent on the ability of SADC littoral governments to conduct constabulary and diplomatic roles at sea within their EEZs, as well as the high seas such as ABNJs. These roles are increasingly becoming important due to the ongoing exploitation of an ever-decreasing natural marine resource, as well as the importance for the SADC to be able to continuously protect and improve the economic wellbeing of its citizens and that of the AMD by means of a safe littoral coastline. The willingness of the three SADC littoral governments to engage with one another and other RECs towards an improved and secure maritime domain speaks to the importance thereof that transboundary MPP frameworks play in socio-economic upliftment and regional stability (RSA: Department of Environment, Forestry and Fisheries, 2019).

Research by the Institute of Security Studies (Potgieter, 2012) found that the contemporary maritime security and marine protection challenges experienced by littoral states are worsened by the diversity and differences that exist between the respective maritime organisations. These differences and types of diversity range from political to cultural influences. It is, however, important to note that some of these states are openly disinterested in alignment or

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transboundary agreements towards maritime domain security or MPP frameworks. Research by Potgieter (2012) and the South African Department of Environment, Forestry and Fisheries (2019) states that for countries to prosper and maintain economic growth, it is important for all stakeholders to share the same intent in terms of shared governance of the ABNJs on the high seas.

The geographic enormity of the Atlantic and Indian oceans requires as a minimum prerequisite a type of agreement towards regional cooperation and possible transboundary agreements (Walker, 2017). The SADC, with its limitations in each respective littoral state, and more specifically South Africa, Mozambique, and Namibia, needs to give careful but decisive consideration to the naval utility it has individually but also collectively with the SAN as a leading agency. The researcher, however, needs to reiterate that from an SADC naval point of view, limited data exist on regional agreements between navies across the oceans that have considered NTMPPFs.

Very little evidence also exists (other than the BCC and the Abidjan Convention, 1984) on what ocean governance initiatives have been taken on the Atlantic coastline of Africa, whereas within the WIO coastline of Africa, various initiatives have been undertaken to address the blue economy and improved ocean governance.

In the Cairo Declaration (2015), AMCEN has called for the development of an ocean governance strategy. To this end WIO states have a duty to cooperate as part of their obligations under UNCLOS. WIO countries have already established intergovernmental institutions such as IORA, IONS and the SMC and other institutional arrangements for the purposes of cooperating on regional ocean governance.

For the SADC navies to consider the development of a possible NTMPPF focusing on a blue economy, the inclusion of opportunities for inquiry, experimentation, and policy innovation around the following four objectives needs to be considered:

- Exploring individual and collective leadership challenges;
- Encouraging multi-sectoral collaboration towards joint transformation action;
- Producing prototypes of transformative actions; and
- Stimulating a network of change agents.

The development of an MPP framework should integrate the following:

- The sound management and use of marine and aquatic resources;

- Ensuring that shared benefit and economic growth are built into a progress-based development paradigm;

- That all conservation and protection of marine and aquatic and marine ecosystems are based on a value-based system;

- Alignment with the SDG agreement;

- A common understanding and agreement towards systems thinking and lifecycle management, as well as lifecycle analysis;

- That adherence to a mutually inclusive, multi-sectoral, and cross-sectoral approach to policy development is maintained at all times;

- Following regional best practices; and

- That overall adherence and integration of the policy framework at multiple levels are of paramount importance (UNECA, 2016).

Any policy framework is based on simplicity in order to allow for improved shared understanding, integrated cooperation among all stakeholders, synergised ownership of the agreed-upon policy framework, prioritisation of the identified sectors involved, design and planning of the agreed-upon policy, coordinated policy implementation, and the continuous monitoring and evaluation of the policy in order to allow for regular review.

The steps as depicted in Figure 4.8 involves the following:

- Step 1: Agenda setting, awareness, and sensitisation between the three navies based on the respective maritime security policy frameworks, naval doctrine, and inherent characteristics that need to be aligned within SADC parameters.

- Step 2: Coordination in formulating the NTMPPF, considering the respective variables.

- Step 3: Building national ownership of the NTMPPF formulation process.

- Step 4: The MSS is the identified sector.

- Step 5: Designing the NTMPPF.

- Step 6: Implementation of the NTMPPF over a period of time as agreed upon by the three navies.

- Step 7: Monitoring and evaluation by the agreed-upon collective between the three navies.

The abovementioned process requires a very specific drive towards the capacity-building process in order to ensure that all the information required to develop a policy framework is transferred to the relevant stakeholders at all levels where the information is required.

Figure 4.8: A step-by-step guide towards an NTMPPF for the SADC navies of South Africa, Mozambique, and Namibia
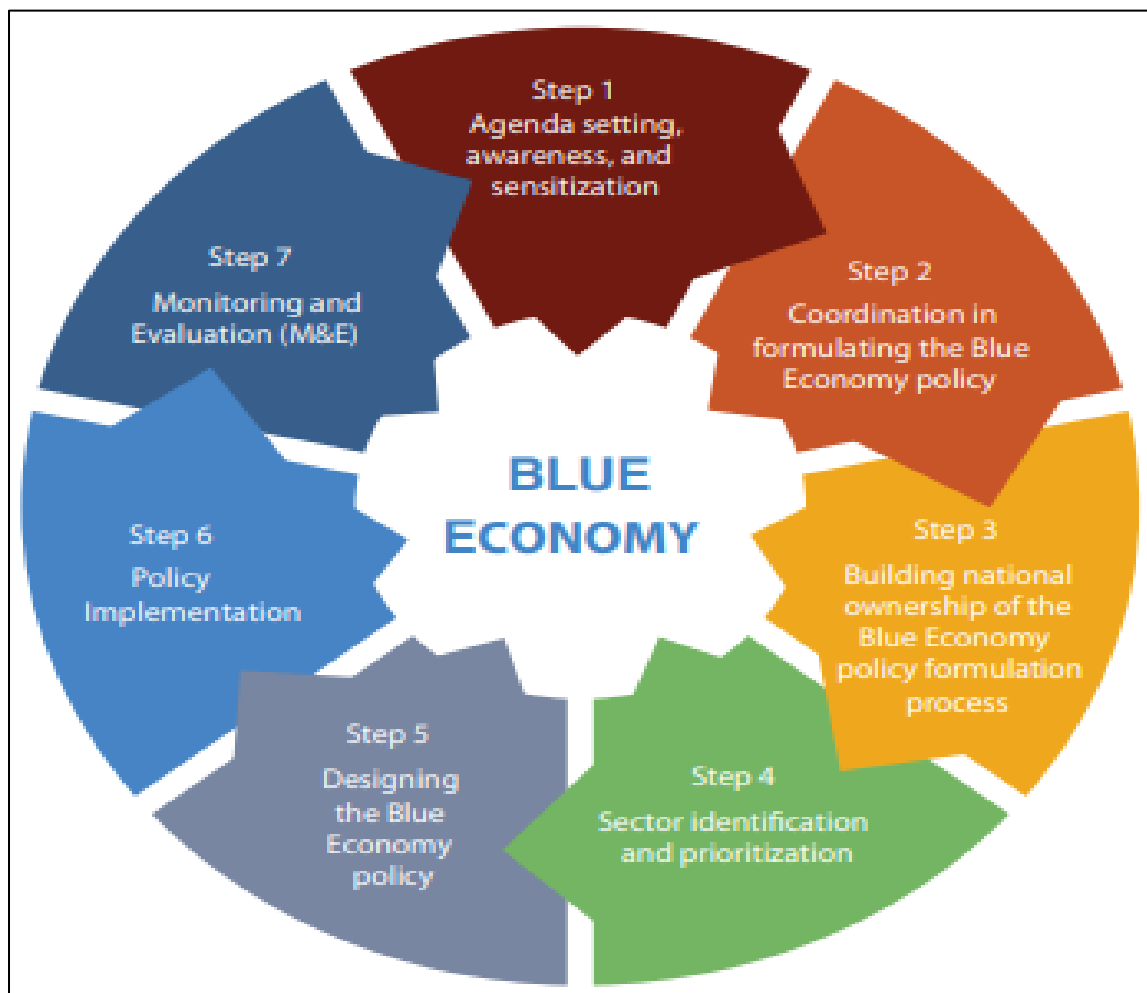
Source: Adapted from UNECA (2019)

4.6   NEO-REGIONAL APPROACH TO CAPACITY BUILDING IN THE SADC

The evidence referred to thus far that relates to maritime governance, transboundary agreements, and MPP frameworks on both international and national level originates from both the public and the private maritime domains. It involves security, economic, and ecological factors that require an integrated regional approach, which requires capacity building at various levels simultaneously in the various countries. These maritime challenges by virtue of their enormity require a mutually inclusive and integrated approach to be agreed upon and implemented by all parties involved. This will, however, due to the geographic distribution of

the various stakeholders and the geographic proximity of the Atlantic and Indian oceans, require a regional conduit with current structures such as the SADC SMC and its Maritime Security Strategy that needs to agree, plan, implement, monitor, and review its progress. The SADC SMC is an example of the current progress that is under way but that requires further regional consensus in terms of the strategy and implementation thereof by means of capacity building as one of the factors (Walker, 2017). The type of capacity building is, however, not limited on only the regional level but also on the extra-regional level as it addresses a plethora of varying impacts that differ from one region to another (Potgieter, 2012; Taljaard, 2011; Walker, 2017).

The evidence produced by the South African Institute for International Affairs (2017) concurs with the previous statement in the sense that policy makers throughout the AMD are experiencing the dichotomy between the blue economy and maritime security. The varying legal interpretations of the blue economy and maritime security present challenges for RECs such as the SADC to incorporate maritime security into national and regional marine- and maritime-related policies. The argument raised by the South African Institute for International Affairs (2017) relates to the fact that a holistic approach needs to be considered when addressing processes that deal with maritime security and the blue economy. According to the South African Institute for International Affairs (2017), the focus in such processes should be on the root causes and not be symptomatic in approach. The researcher argues that the more holistically a policy process is driven and maintained, the more inclusive and capacitated the end result will be.

An example of the progress that has been made by South Africa in the SADC environment is evident in the goals set by Operation Phakisa in 2016 (see Figure 4.9). Point 4 in the graph shows the importance of "accelerated capacity building intervention in Ocean Governance" and how this provides a baseline for other SADC states to build upon.

Figure 4.9: Operation Phakisa goals per phase
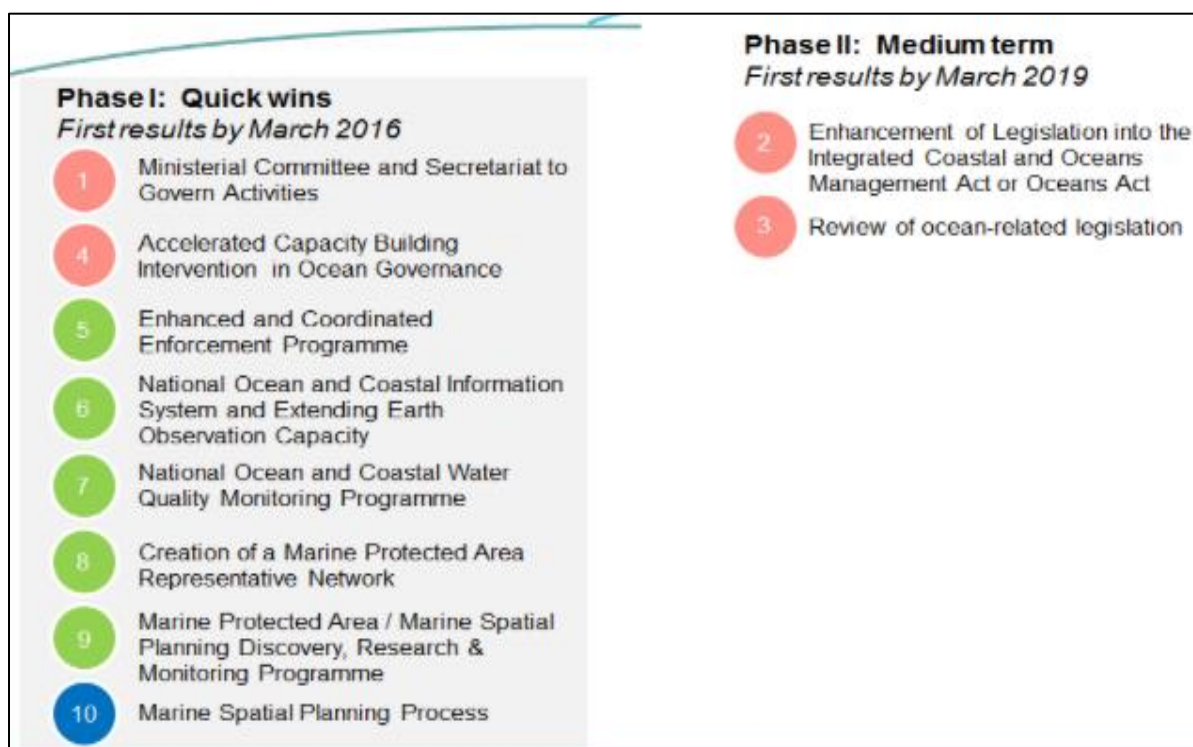
Source: RSA: Department of Environment, Fisheries and Forestry (2019)

The progress depicted in Figure 4.9 is a reflection of where emphasis and priorities have been placed within the scope of the Operation Phakisa framework. Governance, MPAs, MSPs, and enforcement are among the first aspects that the South African government listed as "quick wins" up to March 2016. It is noteworthy that the legislative framework was the second aspect that was addressed after the initial "quick wins" (RSA: Department of Environment, Fisheries and Forestry, 2019).

The research thus far provides sufficient evidence that the SADC realises the need for a cross-sectoral approach and that a multi-pronged and multi-faceted approach is required in the respective governance frameworks of each littoral state. It is also important that a neo-regional transboundary approach is taken in order for MPAs and the OCIMS to be integrated among the SADC littoral member states and their ports (see Figure 4.10) in support of neo-regional maritime stability and marine protection.

Figure 4.10: Most prominent southern SADC ports
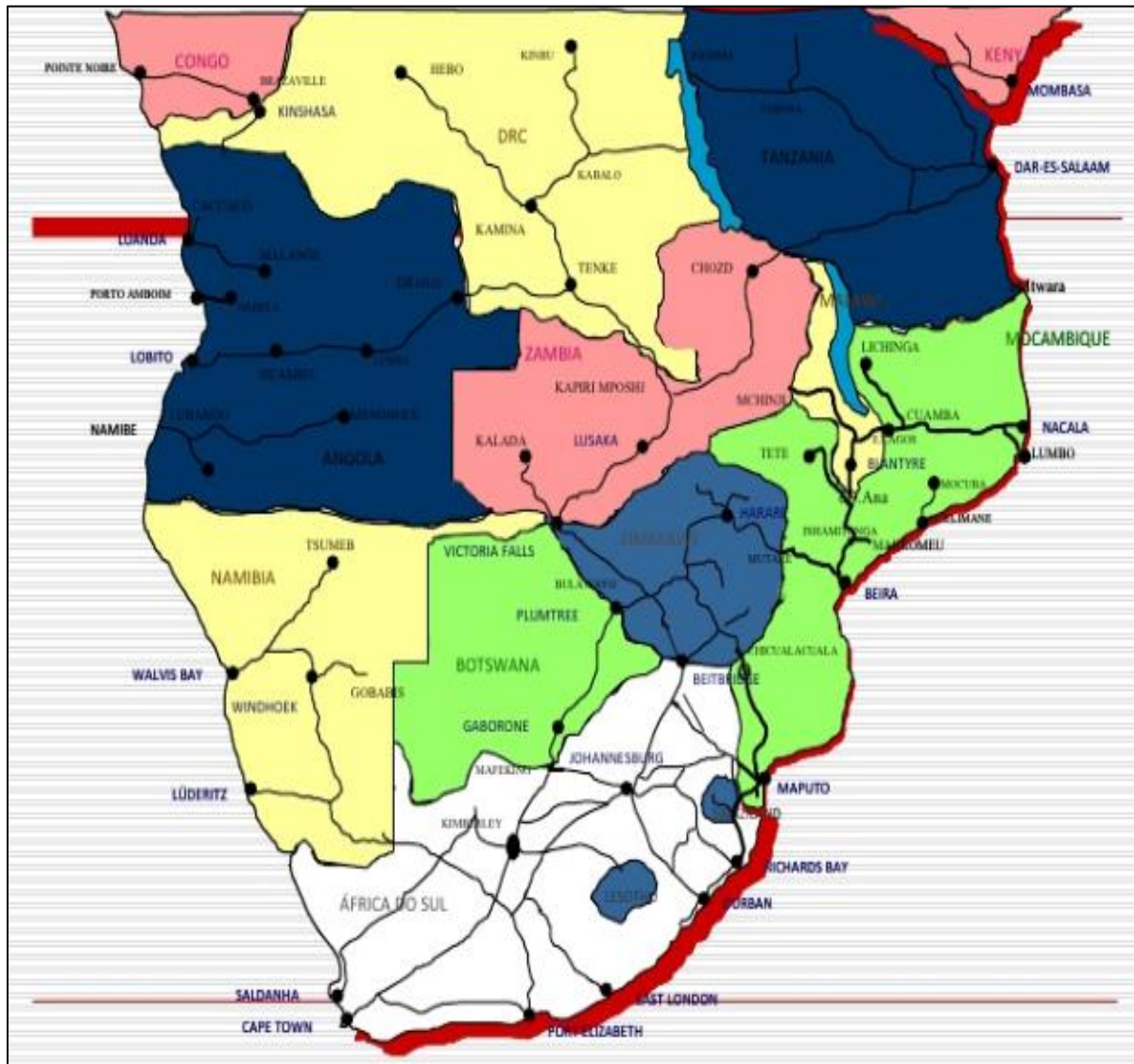
Source: Dzwanda (2009)

4.7   CONCLUSION

Neo-regional contributions by littoral navies to ensure the securing of the sovereign maritime domain, such as experienced by the AU, are increasingly becoming an economic and international imperative.

The research collected thus far suggests that the AMD, and more specifically the SADC, is very much aware that specific focus needs to be placed on the long-standing and unrealised recommendation by the AU to establish a dedicated and capable maritime entity within the AU. However, it has its own challenges in the sense that various differences are observed among the respective AU states. This is apparent in the type of economy that the inland

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economies are dependent upon versus the littoral states that have an ever-increasing blue economy. The common denominator is, however, how contemporary global trends have escalated maritime security challenges as non-state role players are presenting new factors that influence maritime security in both an indirect and a direct way.

The escalation of naval force projection both in a diplomatic manner and the more assertive role of conducting naval exercises have led to more attention being shifted to the maritime security abilities of state, regional, and multi-national role players in the Indian Ocean and to a lesser extent the Atlantic Ocean.

Research by institutions such as the Institute for Security Studies contributed in terms of the considerations that are required for an effective and efficient blue economy within the AU context. This implies that the navies of the SADC, with the SAN being seen as one of the leading navies within the AU and more specifically within the SADC, have a very prominent role to play in supporting the blue economy.

The researcher concluded from the research in this chapter that the SADC navies have both a strategic advantage in terms of their geo-strategic position but also a compromising military-political challenge in terms of weak economies to bridge towards the establishment of an NTMPPF that is both supportive of a secure maritime domain as well as being protective of the marine environment with its natural resources. The challenge lies in agreeing on and creating sustained impetus for such an MPP framework and sustainably maintaining synergy for the possible further escalation into the rest of the AU and into the SADC.

The next chapter endeavours to describe the study's research design, which, among others, includes the motivation for selecting this topic, the selected research methodology, the aim and objectives of the research, as well as the study area. Furthermore, issues such as rigour, ethical considerations, and the quality of the research are explained.

The crux of the next chapter is to effectively meet the research objectives that were set, which include an assessment of the current status quo of MPP in the Namibian, South African, and Mozambican navies to develop an NTMPPF between the South African, Namibian, and Mozambican navies.

CHAPTER 5:

RESEARCH DESIGN AND METHODOLOGY

5.1   INTRODUCTION

The preceding chapters provided an assessment of the development of NTMPPFs at a global level. Chapter 4 followed with an assessment at AU level, which then cascaded lower to the SADC level in terms of the status quo of MPP frameworks at that level. The focus of Chapter 4 was, however, more directly aligned with the research questions and the research objectives and focused on the elements of how NTMPPFs have been developed in the South African, Mozambican, and Namibia navies.

This chapter therefore focuses on the formulation of the research problem, describes the motivation for the research, and provides information on the research methodology and how the sampling and collection of data took place. To answer the research questions and to achieve the research objectives that were set, the researcher followed a certain research process to achieve the identified research objectives.

5.2   RESEARCH PROCESS

According to Jansen (2016), research is defined as "one of many different ways of knowing or understanding a process of systematic inquiry that is designed to collect, analyse, interpret and use data". Cazeaux (in Sannegadu, 2019) states that research is all about an attempt to improve the "body of knowledge that is used by the researcher and to devise new applications".

Babbie and Mouton (2001) and (2008), agree on "research" being a process of understanding knowledge and following a systematic process of inquiry that is developed for collation of data. Babbie (2008) and Sesay (in Sannegadu, 2019) state that research must not be sporadic or unplanned. The prerequisite is that research must be well organised and systematic to allow researchers to be their own epistemologists when explaining in simple terms their final results and the process of their research (Poincare, in Sannegadu, 2019). It is within the framework of the abovementioned research that the researcher followed the research process steps as indicated in Figure 5.1 in order to provide sufficient scientific structure to this study.

Figure 5.1: Research process

STAGE 1: FORMULATE THE PROBLEM

STAGE 2: DETERMINE THE RESEARCH DESIGN

STAGE 3: DESIGN THE DATA COLLECTION METHOD

STAGE 4: DESIGN THE SAMPLE AND COLLECT DATA

STAGE 5: ANALYSE AND INTERPRET DATA

STAGE 6: PREPARE THE RESEARCH REPORT
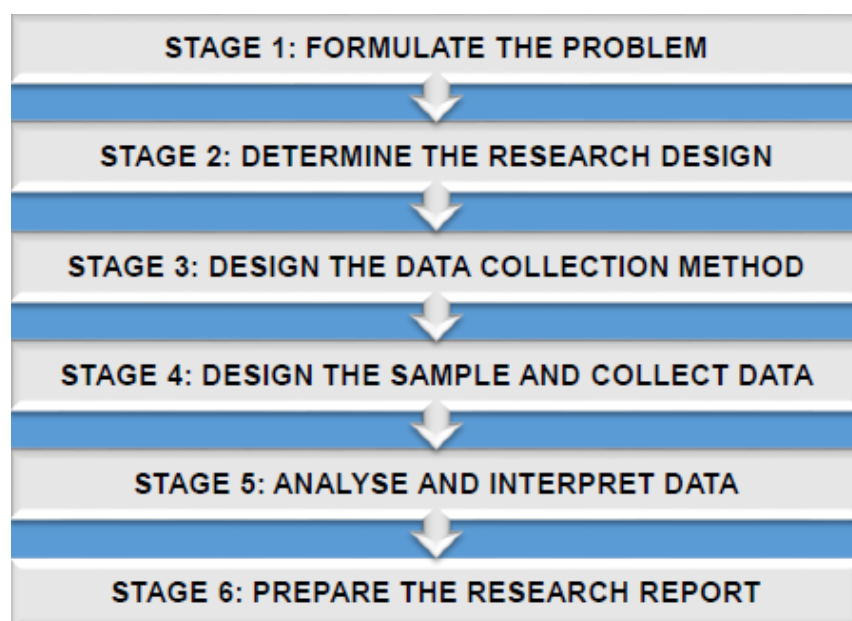
Source: Lacobucci and Churchill (in Sannegadu, 2019)

5.3   RESEARCH PROBLEM

Babbie and Mouton (2001), Babbie (2008), and Kumar (2011) support the notion that the most critical and scientific step in conducting research is the formulation of the research problem. The research problem entails the identification or formulation of the research objectives and the research problem as perceived by the researcher.

5.3.1   Formulation of the research problem

The formulation of the research problem is in many ways the momentum that is generated in order to allow for a further extrapolation of data in a scientifically accepted inquiry (Babbie & Mouton, 2001; Babbie, 2008; Kumar, 2011). Wiid and Diggines (in Sannegadu, 2019) postulate that the research problem could be defined as a gap in the available knowledge process of decision makers that ultimately could affect the decisions that are made. The concise and precise summary of the research problem is of much more importance than the actual suggested recommendations. It must be reiterated that the identification of the research problem necessitated a tremendous amount of effort towards research and consultation in terms of the proposed study (Rwegoshora, in Sannegadu, 2019).

The research problem, as presented and explained in Section 1.2 of this study, centres around the fact that there is a perceived gap or "absence" of an NTMPPF among the navies of Namibia,

South Africa, and Mozambique that prevents regional collaboration between these navies towards improved marine protection and maritime domain security. After an in-depth literature review (Maestro *et al.* 2019), it became apparent that no studies have been conducted on NTMPPFs as suggested in Section 1.2 of this study. It is therefore suggested that the development of such an NTMPPF should be explored based on the following research problem: The absence of an NTMPPF among the navies of Namibia, South Africa, and Mozambique based on governance, interoperability, and training prevents regional collaboration between these navies towards improved marine protection and maritime domain security.

The primary research question posed is therefore: Does an NTMPPF exist between the navies of South Africa, Namibia, and Mozambique?

5.3.2 Research objectives

Babbie (2008) and Kumar (2011) state that once the research problem has been formulated, the next step entails setting research objectives. These research objectives provide the rationale for the purpose of the research and can also be defined as alternatives for the research purpose. According to Berndt and Petzer (in Sannegadu, 2019), it is a scientific imperative to set both primary and secondary research objectives as the primary research objective supports the overall aim of the research and the secondary objectives are deemed to have a more exploratory nature in support of the primary objective.

5.3.2.1 *Primary objective*

The primary research objective of this study is: To develop a NTMPPF between the South African, Namibian, and Mozambican navies based on current policy elements.

5.3.2.2 *Secondary objective*

The secondary research objective of this study is: To assess the current status quo of MPP frameworks in the Namibian, South African, and Mozambican navies.

5.4 RESEARCH APPROACH

The choice of research topic proved to be complex as the chosen subject matter had limited documentary or readily available evidence from a contemporary point of view. The researcher found that both the Namibian and the Mozambican navies have only over the past decade

shown commitment towards improved ocean governance and increased maritime security reform. The limited evidence, however, does not remove the increasing importance of protecting the oceans, which is further exacerbated by the fact that this importance is not equally recognised by developing littoral navies across the AU or more specifically in the SADC AMD. The researcher therefore argues that the envisaged research could add value to the contemporary littoral challenges within the SADC, which is the motivation for the research questions and the research objectives that were set.

Research requires the researcher to be able to analyse and interpret data in order to gain a better understanding of the subject matter. It is a scientific prerequisite that the research process be conducted in a systematic manner that will allow for the collation of sufficient scientifically accepted data to provide an accurate and truthful representation of the subject matter under investigation (Schurink, 2009).

The prerequisite for research is therefore that the collected data must gradually and incrementally develop a body of knowledge pertaining to the subject matter under investigation. The research conducted must be planned and scientifically clear in its intent in terms of the stated research questions. It stands to reason that the research must therefore be unambiguous and must consist of a well-defined research approach and logical design, and that the subsequent methodology must provide the research findings in a credible manner. As this research study was positioned in the social sciences, the researcher had the choice of using either a qualitative or quantitative research approach or a combination of both. The researcher decided on the qualitative approach (Mouton, Auriacombe & Lutabingwa, 2006; Babbie, 2008). In order to fully understand the research process, it is important to provide the philosophical framework that is relevant to the research.

5.5   PHILOSOPHICAL FRAMEWORK

From a scientific perspective, it is important to gain an understanding or knowing what social reality entails and the two approaches are either conducted from a positivist or a post-positivist perspective. The rationale for this is that it provides the researcher with guidance in terms of the most appropriate research paradigms in relation to ontology (studying what is reality), epistemology (knowing and learning social reality), methodology, and methods of collecting and analysing data (Salvador, in Sannegadu, 2019). For the purposes of this section, it is important to explain the philosophical framework that underpins this study.

5.5.1 Positivism

Researchers who hold a positivist perspective to research are categorised as choosing to follow the traditional approach as this type of perspective has its origin in the 19th century when objective scientific research became more prominent (Babbie & Mouton, 2001; Peca, 2001). There is agreement among researchers that positivism is founded on "realism", "which is guided by natural laws which are context-free" (Killam, in Sannegadu, 2019). Aliyu *et al.*, (in Sannegadu, 2019) found that "positivists believe that reality can only be measured with independent facts or data, with no room for emotions or subjectivity which can influence the research". The objective and realistic approaches of research conducted by positivists result in them being more inclined to follow methodologies that are more quantitative and not qualitative in nature.

5.5.2 Post-positivism

Unlike positivism, post-positivist researchers view reality as not being ideal but as possessing imperfections. Killam (2013) found that post-positivism has developed in parallel with positivism and that there is increasing agreement among researchers that reality is not necessarily always objective in its true nature. It is for this reason that the researcher chose a post-positivist approach based on the expected interpretations and views that are presented throughout the research. The nature of qualitative research is based on the investigation that interprets the position or view of the participants in a study. The main focus of qualitative research is to describe and understand social phenomena and not to explain and predict them (Babbie & Mouton, 2001). The emphasis is more on the exploration of the research participants' subjective interpretations that will elucidate the subject matter under investigation (Schurink, 2009). The social phenomenon under investigation requires less investigation in terms of quantification and a more descriptive approach to the phenomenon. The social sciences researcher is therefore expected to explore and reveal what the participants might think of the subject matter or what their beliefs are in terms of the subject matter, which implies a qualitative research approach (Bless, Higson-Smith & Sithole, 2013).

5.6 RESEARCH PARADIGM

The researcher understood the importance of the paradigm through which he chose to approach his research topic. The researcher set out to develop or construct theory on the creation of an

NTMPPF for emerging navies within the SADC and for this reason an inductive approach was chosen as the research paradigm.

Every research study has a certain research paradigm and is conducted based on certain assumptions in terms of the validity of the research and the appropriateness of the research methods (Trafford & Leshem, 2008). The nature of research lends itself to a paradigm that is influenced by the philosophies and assumptions made about the knowledge gained (ontology), and how the knowledge is gained (epistemology) (Wagner, Kawulich & Garner, 2012). From a scientific point of view, varying beliefs of ontology and epistemology determine the manner in which research is approached, which will subsequently determine the methodological position that the researcher will decide on based on the given ontological and epistemological position (Babbie & Mouton, 2001).

It is important to be reminded that positivists hold the position that the goal of knowledge is to describe the phenomena that people experience. The position that post-positivists maintain is that any observation that is made

> is fallible and has error and that all theory is revisable. Where the positivist believed that the goal of science was to uncover the truth, the post-positivist believes that the goal of science is to hold steadily to the goal of getting it right about reality, even though we can never achieve that goal (Web Center for Social Research Methods, 2019).

Another way of explaining the post-positivist research approach is presented in Table 5.1, where critical realism is applied based on the imperfect state of the body of knowledge.

Table 5.1: Application of critical realism

	Positivism	Postpositivism	Constructivism
Ontology (what is the nature and form of reality?)	Naive realism Reality is assumed to exist.	Critical realism Reality is assumed to exist but only imperfectly apprehendable.	Relativism Not one reality but realities that can be apprehendable in the form of mental constructions.
Epistemology (what can be known?)	Objectivist « Replicable findings are true »	Objectivitiy is an ideal. « Replicable findings are probably true »	Findings are « value-mediated ».
Methods (how to acquire knowledge?)	Experimental and manipulative (laboratory settings)	Inquiry in natural settings Triangulation as a way of falsifying.	Transactional inquiry requiring a dialogue btw the inquirer and the subjects of the inquiry

Source: Guba and Lincoln (1994)

The assumptions of the critical realism underlying the nature of the policies that are being analysed suggest that the researcher should adopt a post-positivist paradigm (Guba & Lincoln, 1994; Patton, 2002) and assume an objective stance in the research. Critical realism "treats the world as theory-laden, but not theory-determined. Critical realism does not deny that there is a real social world one can attempt to understand or access through philosophy and social science, but some knowledge can be closer to reality than other knowledge" (Danermark, Ekström, Jakobsen & Karlsson, in Fletcher, 2017). According to Fletcher (2017), critical realism becomes useful in conducting causal analysis and initiating an explanatory process with regard to social problems and providing possible solutions when focusing on social phenomena where change occurred.

The ontology of critical realism suggests that it is divided or stratified into three levels. The first level focuses on events that can be measured from a scientific point of view. These events are also more often explained through common logic but "these events are always mediated through the filter of human experience and interpretation" (Fletcher, 2017). Fletcher (2017) further describes this level as "the transitive level of reality, where social ideas, meanings, decisions, and actions occur – but, importantly, these can be causal".

The next level comprises the contemporary or actual events where there is no mitigation by means of human experience. This is the level that excludes human interpretation, which is totally different

> from what is observed at the empirical level. The last level is the 'real', where 'causal mechanisms' can be found. The 'causal mechanisms' are those 'inherent properties in an object or structure that act as causal forces to produce events' (Fletcher, 2017).

The main objective of critical realism is to describe social phenomena by using the causal mechanisms as reference, as well as how these causal mechanisms can cause specific effects "throughout the three-layered 'iceberg' of reality" (Fletcher, 2017).

The use of the iceberg metaphor (see Figure 5.2) as postulated by Fletcher (2017) suggests that the respective levels are more or less important than another or that the respective levels do not share a certain amount of interaction. The suggestion is that the three levels of the iceberg metaphor are a single entity (reality). The researcher, assuming the position as a post-positivist, and with a critical realism approach, acknowledges that all observations are imperfect and therefore all theory is revisable (Guba & Lincoln, 1994; Patton, 2002).

The current trends in the AU and SADC present proof of policy imperfections in terms of maritime security and therefore suggest that a need for improved neo-regional maritime security policy and therefore the need for the development of an NTMPPF exist. The interpretation and understanding of what the latter policy in terms of marine protection in the SADC should consist of require further analysis.

Figure 5.2: An iceberg metaphor for critical realism ontology and epistemology
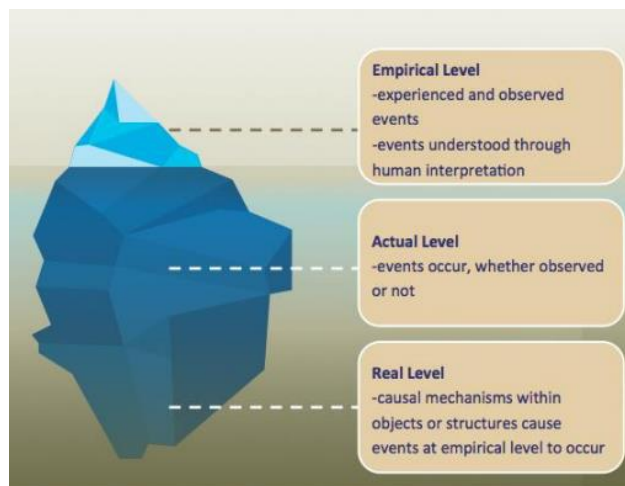
Source: Fletcher (2017)

During the analysis of public policy that focuses on the marine protection of the South African, Namibian, and Mozambican navies within the SADC context, the researcher effectively made use of grounded theory research (Markey & Tilki, 2014) as the preferred research method. The reason for this is that little research exists on navies agreeing to develop an NTMPPF. There is ample research on the collaboration between armed forces of different states, but the concept of a blue economy as the central theme to be used by emerging littoral navies in support of the development of an MPP framework is under-researched (ResearchGate, 2019).

The researcher acknowledged the fact that during the research study the qualitative paradigm would be in flux and therefore dynamic in nature due to the subject matter of the dissertation, which has not received much scientific scrutiny. The researcher sought to gain a better understanding of the interrelated but often divided assumptions on the topic of the dissertation, the subsequent concepts, and the naval marine protection practices that he perceived as reality from an ontological viewpoint and studied from an epistemological viewpoint (Schurink, 2009). There seems to be a distinct division between the role that an oceans economy or blue economy as a concept plays within navies and the role that the blue economy plays in the naval doctrine of the SAN, for example.

5.7 RESEARCH DESIGN

The research by Becker and Bryman (2004) and Babbie and Mouton (2001) suggests that a research paradigm must be aligned with the research design, which will ultimately be the framework for the data to be collected against. The researcher used the research design in order to answer the research questions and to ensure that structure and clarity are maintained. The resulting findings that this dissertation produced are therefore directly linked to the research questions and the overall research design (Babbie & Mouton, 2001; De Vos, Strydom, Fouché & Delport, 2011). There are a plethora of research designs that are applied during qualitative studies, which include conceptual studies, action research, grounded theory, and phenomenological studies (De Vos *et al.*, 2011). The researcher selected grounded theory as the preferred research design as the purpose of grounded theory is to develop theory.

5.7.1 Grounded theory

According to Markey and Tilki (2014), StudyLib.Net (2019), and Babbie (2008), grounded theory (see Table 1.1) is essentially the process whereby theories are derived from an analysis of patterns, themes, or codes found in observational data. Strauss and Corbin (in Babbie, 2008) suggest that grounded theory allows the researcher to be simultaneously scientific and creative as long as the researcher follows the following guidelines:

- Think comparatively: The researcher must ensure that no biases arise and that the constant comparison of various observations or incidents must be conducted.
- Obtain multiple viewpoints: It is imperative that a variety of viewpoints is obtained.
- Periodically step back: It is important to observe and assess the collected meta-data against the interpretations made.
- Maintain an attitude of scepticism: The researcher must remember that as data accumulate, they must be interpreted, followed by additional observations that need to be used to test previous interpretations.
- Follow the research procedures: Flexibility is allowed in grounded theory, but it is essential that the following three techniques are applied at all times:
    o Make comparisons;
    o Ask questions; and
    o Conduct sampling.

The decision was therefore made to apply grounded theory as the preferred research design as it fits with the methodology while conducting a policy analysis of the MPPs of the South African, Namibian, and Mozambican navies.

According to Schurink (2009), a researcher who decides to apply the grounded theory strategy basically sets out to generate an abstract analytical framework of a chosen phenomenon such as the development of an NTMPPF for SADC navies, as decided upon for this study. It basically means that grounded theory is applied as the method of comparing data throughout the process when collating data, observing perceptions, and thereby gradually generating theory. The researcher is required to ask the question: "How does what I already know differ from what I have now found?" (Schurink, 2009).

According to Schurink (2009),

> [t]he aim of this constant comparison method is to look for similarities and differences in the data. From this process, the researcher identifies underlying uniformities in the indicators or incidents (actions, events, and perspectives) and produces a coded category or concept. These categories are compared with one another and with new incidents to sharpen the definition of the concept and to look for possible new categories. Categories are clustered together to form themes.

The researcher is ultimately analysing whether plausible relationships exist between themes and whether tentative theories are further explored through additional instances of data and tested by means of theoretical sampling. Theoretical saturation is reached when no new categories emerge (Schwandt, in Schurink, 2009).

5.8   RESEARCH STRATEGY

The researcher collected as much meta-data as possible in order to ensure a broad enough approach in support of inductive reasoning, which allowed for theory triangulation to be used as part of the research strategy. It improved the quality and validity of the findings made during the study (Babbie & Mouton, 2001; Patton, 2015). It is not only validity that is improved by triangulation, but also the comprehensiveness and the rigour that the researcher applied throughout the research. The researcher attempted to improve the effectiveness of the data collation by including as many data sources as possible in order to ensure that the collected data were as inclusive as possible. This allowed the researcher sufficient multiplicity, which

was required as the respective data-collection methods and sources would not individually allow a comprehensive enough scope on their own (Schurink & Auriacombe, 2010; Babbie & Mouton, 2001). The researcher realised that the convergence and integration of the data had to be tested in order to promote a holistic understanding of the subject matter and ultimately to ensure the "richness" of the findings (Babbie, 2013).

5.9   RESEARCH SETTING

From the onset, the researcher realised that the setting for the research would have a fundamental impact on the possible success or failure of the research study (Mouton, 2001). The research approach and the research question(s) determine the research setting, and the setting should therefore provide sufficient and reliable data in order to effectively explore and answer the research question in a manner that gives meaning to the research. It was for this reason that the SAN with its neighbouring littoral navies was chosen. The SAN is also the leading naval force in the SADC and to a lesser extent a prominent naval organisation within the AMD. The researcher was aware that the sources of the data had to be described with care as it is important to note that the researcher not only sampled people but needed to look at the settings, events, and processes as well (Maxwell, in Schurink, 2009). Schurink (2009) states that qualitative research needs to include purposive sampling due to the fact that it is a strategy that will elucidate the phenomenon being researched and that it will provide the most truthful end result based on the research objectives and questions of this study.

In order for the research objectives to be obtained, the importance of the SAN's membership to the SADC needs to be reiterated, as well as how the leading role of the SAN within the SMC of the ISDSC could facilitate the development of an NTMPPF. It is observed that the navies in this study have similar mandates in terms of safeguarding the sovereignty of their littoral waters, which, by virtue of their stewardship as protectors at sea, also include the protection of the marine resources. From the onset of this study, the researcher postulated that the three SADC navies could play an increasingly important role in the AMD and within their respective EEZs by supporting one another, at least at the policy level, in improving the protection of the individual and collective marine resources. The fact that the SADC is committed to a secure and stable AMD and also in support of the BCLME and ASCLME sets a research setting that is supportive of the research objectives, research questions, and research rationale. For that reason, the three navies of South Africa, Mozambique, and Namibia provided the units of analysis for the researcher to conduct this study.

5.9.1 Units of analysis

De Vos *et al.,* (2011) and Babbie and Mouton (2001) support the notion that the unit of analysis presents itself in various forms such as organisations, people, and any other source that is of interest to the researcher and that will allow for the collection of the appropriate data. The data in this research study originated from a combination of policy documents, scientific journals, high-ranking naval command appointees, military attachés, and military subject matter experts. The unit of analysis, however, consisted of the three navies, as previously mentioned.

5.9.2 Research population

Walliman (2011) and Babbie and Mouton (2001) hold the view that a research population consists of all the entities and sources that are earmarked for a scientific study. Walliman (2011) and Babbie and Mouton (2001) furthermore postulate that the research population effectively comprises the total entities and sources from which the researcher will select a sample, in order to achieve the objectives identified for the study and to effectively answer the stated research questions. For the purposes of this study, the researcher identified specific military command staff at the strategic level within the SANDF, and with the assistance of the Directorate: Navy Foreign Relations and the Department of International Relations and Cooperation, senior military diplomatic representatives in both the NDF and Mozambican Defence Force (MDF) who are directly involved in the policy planning and development process. These appointees were selected as they represented the research population. The identified research topic necessitated the researcher to identify and contact specific senior military functionaries that dealt with policy planning and development and for that reason sampling had to be conducted based on the knowledge, experience, and seniority of each selected appointee.

5.10 SAMPLING

Babbie (2008) and Taherdoost (2016) suggest that research questions cannot be answered by the collection of possible data. It is therefore necessary to select a sample from the population consisting of all the available data sources prior to analysing the data. The limitation in time and available resources necessitates researchers to apply a sampling technique that will allow a more practical and systematic technique of gaining access to data.

Figure 5.3 illustrates the steps to be followed when conducting sampling.

Figure 5.3: Sampling process steps
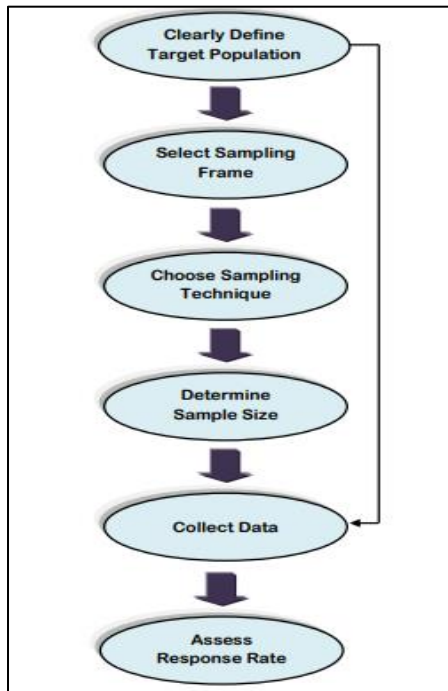
Source: Taherdoost (2016)

5.10.1 Clearly define the target population

During the sampling process, it is important to first define the target population as this will delimit the scope of the research (Babbie, 2008; Taherdoost, 2016; Walliman, 2011). The target population consisted of command and staff personnel within the South African, Mozambican and Namibian military structures.

5.10.2 Selecting the sampling frame

Taherdoost (2016) defines the sampling frame as a "list of the actual cases from which sample will be drawn. The sampling frame must be representative of the population".

The sampling frame for the purposes of this study therefore entailed various subject matter experts. These individuals were chosen as they presented the researcher with accessibility within the limitations of time and resources. The researcher was relatively well informed of the choice of subsets that were available from the sampling frame. The researcher was also of the opinion that certain inferences would be possible based on the chosen population. It was also important to select the most appropriate sampling technique (Babbie, 2008).

5.10.3   Selecting a sampling technique

Taherdoost (2016) and Babbie (2008) postulate that sampling techniques can be divided into two categories, namely probability or random sampling, and non-probability or non-random sampling.

It is important to explain the difference between probability and non-probability sampling, as illustrated in Figure 5.4.

Figure 5.4: Sampling techniques
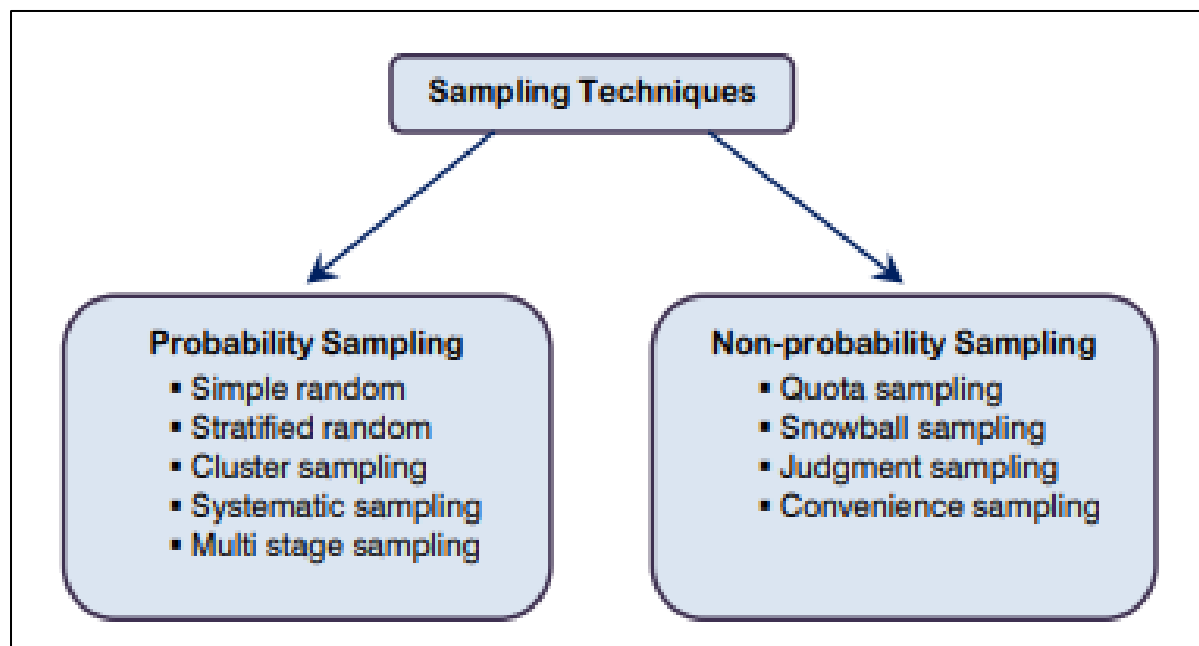
Source: Taherdoost (2016)

5.10.3.1 Probability sampling

In essence, probability or random sampling can be described as the equal chance that every entity in a population has of being included in a predetermined sample. A possible way to conduct random sampling is to develop a sampling frame and then to utilise a "random number generating computer programme" to identify a sample from the sample frame (Zikmund, in Taherdoost, 2016). The challenge, however, is that although random sampling is deemed to be less biased, it is more expensive in terms of energy and time spent.

5.10.3.2 Non-probability sampling

This type of sampling is normally utilised during qualitative research where the focus is on smaller samples and where the researcher intends to study a real-life phenomenon (Yin, in

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Taherdoost, 2016). The researcher is not compelled to ensure representivity or "randomness", but needs to provide proof of the rationale followed for the choice of the individuals chosen.

The researcher knew that the choice of sampling technique would play a determining factor in the quality, validity, and rigour of his research after assessing the strengths and weaknesses of the different sampling techniques explained in Table 5.2.

Table 5.2: Strengths and weaknesses of sampling techniques

Technique	Strengths	Weaknesses
Convenience sampling	Least expensive, least time consuming, most convenient	Selection bias, sample not representative, not recommended by descriptive research
Purposive or Judgemental sampling	Low cost, convenient, not time consuming, ideal for exploratory research design	Does not allow generalisation, subjective
Quota sampling	Sample can be controlled for certain characteristics	Selection bias, no assurance
Snowball sampling	Can estimate rare characteristics	Time consuming
Simple random sampling	Easily understood, results projectable	Difficult to construct sampling frame, expensive, lower precision, no assurance of representativeness
Systematic sampling	Can increase representativeness, easier to implement than simple random sampling, sampling frame not always necessary	Can decrease representativeness
Stratified sampling	Includes all important sub-population, precision	Difficult to select relevant stratification variables, not feasible to stratify on many variables, expensive
Cluster sampling	Easy to implement, cost effective	Imprecise, difficult to compute and interpret results.

Source: Malhotra and Birks (in Taherdoost, 2016)

The choice of sampling technique made by the researcher was to a certain extent determined by, among others, the limited theoretical sources available on naval NTMPPFs in any of the three chosen navies. Furthermore, the researcher was aware of the financial and time constraints imposed on the study environment (Bickman & Rogg, in Schurink, 2009). Ultimately, the strengths of purposive sampling as explained in Table 5.2 measured against the reality of the study compelled the researcher to decide on purposive sampling. As this research study is qualitative in nature, the expectation of the data was for it to be "rich in description of people and places" (Patton, in Schurink, 2009). The researcher therefore followed this accepted practice towards "richness" in the sense that he selected the group and setting where he expected the highest probability of research success (Marshal & Rossman, in Schurink, 2009).

5.10.4   Research sample

The choice of sample decided on for this research study was based on information that the researcher required in order to effectively answer the research question (Mouton, 2001; Burger & Silima, 2006). The researcher chose five sub-samples from the population initially identified. The sub-samples consisted of naval command and support line functionaries at Naval Headquarter level.

The five respective sub-samples consisted of representatives at the military-strategic level from the South African, Namibian, and Mozambican defence forces, the Council for Scientific and Industrial Research (CSIR), and from the SANDF Training Command. The rationale for the choice was that these sub-samples respectively and collectively represent the three littoral navies of the SADC that concomitantly both observe the maritime security around the southern tip of Africa and host the BCLME and the ASCLME. The inclusion of the CSIR was based on the fact that the subject matter experts on interoperability were in the employment of the CSIR and had agreed to participate in the intended research due to the neo-regional topic that is becoming more relevant with the blue economy.

From the perspective of initiating a "new" NTMPPF, it also made sense to start with a smaller sample group than with an elaborate selection of states, given the time and budgetary constraints. The researcher chose to focus primarily on the upper command and staff structure in order to ensure that focus is placed not exclusively on the political policy imperatives, but rather on the military-strategic imperatives and considerations that exist within the SADC military domain.

The first sub-sample group consisted of the code names for anonymity purposes for the various SAN Headquarter Directorates: N1 to N4.

The command and staff appointees chosen were knowledgeable and highly experienced in the neo-regional transboundary obligations and possible opportunities that exist within the SANDF and more specifically the SAN. All the identified flag officers and supporting staff functionaries participated and showed acute interest in the subject matter presented for the interviews and subsequent discussions.

The next sub-sample consisted of a representative from the Mozambican Consulate. The researcher requested approval through the naval lines of command. The Directorate: Navy Foreign Relations facilitated the process to conduct the interview and in consultation with the

researcher made a venue available for the interview. As the researcher was already informed through research that the Mozambican Navy is still in the development stage and lacks strategic assets or any other high seas capability, he expected that the topic for the proposed interview would be new to the identified respondent. The Mozambican participant was a senior army officer coded as MA1. MA1 stated that the subject matter was new to him and to the Mozambican Navy and that he doubted whether anything operationally or strategically tangible related to the subject matter has been documented or considered within the MDF and Mozambican Navy. The language of Mozambique (Portuguese) and the size of the MDF and its navy made purposive sampling both easy and difficult. The researcher realised that MA1 would be able to understand the questions posed but that the organisational limitations of the Mozambican Navy would restrict in-depth responses in terms of the topic.

After the initial meeting with MA1, the researcher considered a follow-up meeting with another Mozambican respondent. This request was approved by the SAN, but due to the outbreak of the COVID-19 pandemic, the whole process was halted until further notice. This compelled the researcher to be dependent on limited primary source input and more dependent on secondary sources.

The next sub-sample consisted of a representative from the Namibian Embassy. The researcher requested approval through the same naval lines of command. The Directorate: Navy Foreign Relations facilitated the process to conduct the interview in consultation with the researcher and made a venue available for the interview. As the researcher was already informed through research that the Namibian Navy is also still in the development stage and has limited strategic assets and high seas capability, he expected that the topic for the proposed interview would be new to the identified respondent.

The respondent (NA1) had an army background. NA1 stated that the subject matter was new to him and to the Namibian Navy and that he doubted whether anything operationally or strategically tangible related to the subject matter has been documented or considered within the Namibian Navy. There were no real language barriers but the size of the NDF and that of its navy made purposive sampling both easy and difficult. The researcher realised that the respondent from the Namibian Embassy would be able to understand the questions posed but that the organisational limitations of the Namibian Navy would restrict in-depth responses in terms of the topic.

After the initial meeting with NA1, a second attempt was initiated with success in terms of the Namibian response. The second respondent (NN1) responded positively and agreed to participate voluntarily. NN1 consulted with the Namibian Navy Head of Training prior to providing the requested input to the study. The researcher requested a follow-up meeting with a Namibian naval officer. The SAN approved this request but due to the outbreak of the COVID-19 pandemic, the process was halted until further notice as the availability was compromised.

The fourth sub-sample, from the CSIR, was introduced to the researcher by the SAN, as interoperability was a key concept within the AMD and Maritime Domain Awareness (MDA), as well as the maritime security policy that the Directorate: Maritime Warfare was busy with at that point of time. The respondent (coded C1), specialising in information and communications technology interoperability, in conjunction with his colleague (coded C2), agreed to participate in the research as subject matter experts on interoperability, and expressed their interest in the subject matter from the onset. The two individuals (C1 and C2) are also involved with the SANDF in all Arms of Services, especially the SAN, to ensure that interoperability is integrated into all command and staff functions and procedures.

The fifth sub-sample was from the SANDF Training Command. Respondent G1 had valuable insight and extensive experience in the curricula, current state of military training, and knowledge of regional agreements with neighbouring militaries. G1 from the onset agreed to participate in the research after an initial telephonic confirmation with his office. The research topic, as indicated by him during the initial telephonic introduction, also coincided with his vision to improve the regional agreements within the SADC and supported the notion of a blue economy integrated into the military training strategy.

The next stage after identifying the respective population, sample groups, and sub-sample groups entailed the design of the data-collection method, as it would contribute to answering the research problem and achieving the set research objectives.

5.11   DATA COLLECTION

Babbie (2008) and Kumar (2011) agree on the importance of data-collection methods that need to be selected in order to allow for "richness", rigour, and validity while collating the data. Mouton (2001) found that the data-collection method that is used can be described as a process of applying the measurement instrument to the population that is being evaluated. This notion,

as referred to by Mouton (2001), received support from both Opperman and Meyer (2008) and Erasmus *et al.* (in Kwak, 2011). The data-collection techniques chosen by the researcher included documentation, archival records, policy documents, and interviews, which entailed a combination of primary and secondary data collection that make up the primary data collection for the study (Sahu, 2013; Sekaran & Bougie, 2016). It is important to ensure that the study is at all times defensible from a scientific point of view and that the data-collection method is appropriate in order to make valid inferences directly related to answering the specific research question and achieving the research objectives (Sekaran & Bougie, 2016).

Reige (2003) states that the quality and meaningfulness of gathered meta-data are only acceptable if based on reliability and validity. Babbie and Mouton (2001) argue that validity can be defined as "the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration". The data-collection methods that were chosen by the researcher improved the reliability and validity of the research. The three data-collection methods from either primary or secondary sources, namely interviews, policy analysis, and documentary review that were used to collect the data from the sample, supported the coding or theme development and improved the credibility of the scientific findings.

The researcher obtained articles from a plethora of authoritative databases such as Elsevier, Stellenbosch University Online Library, Institute for Security Studies, Emerald, EbscoHost, and Taylor and Francis Online. Sahu (2013) states that data are classified as either primary or as secondary data. For the purposes of this study, both types of data were utilised, with the majority of the data collection taking place from secondary sources for reasons still to be discussed. The researcher was compelled to ensure that the data-collection instruments for interviews would support factors such as confidentiality, rigour, "richness", and validity.

5.11.1   Design of data-collection instruments

Babbie (2008) and Kumar (2011) emphasise the necessity of choosing the "correct" data-collection instrument, which could include interviews or questionnaires, when conducting scientific research. The researcher therefore, for the purposes of this study and within the context of the factors that could affect the credibility of the study, identified nine subject matter experts who represented the population of the sum of the organisations involved. A guiding document was developed that would be used as both a questionnaire and as an interview guide (see Appendix D). The researcher realised, based on the limited related literature, that the majority of respondents would in all likelihood be from South Africa and to lesser extent from

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Namibia and Mozambique and therefore literature filled this void. The sample size and the accompanying interview guide/questionnaire (see Appendix D) therefore proved to be sufficient given the nature of the research question and the chosen design strategy (Hussein, 2009).

5.11.2 Interviews as a data-collection method

From the onset of the study, the researcher realised that the topic of his research would require a very structured approach in order to gain a better understanding of the status quo of NTMPPFs within the littoral context of the three most southern navies of the SADC. It is for this reason that an interview guide was drafted that started at a macro level (UN) and ultimately cascaded down via the AU to the SADC to the sample area, namely the South African, Namibian, and Mozambican navies (Adler & Clark, 2014; Babbie, 2008; Kumar, 2011). The guide (see Appendix D) was specifically structured in such a way that both the respondent and the interviewer could freely move between the questions in order to understand how the questions were aligned, and it focused on the research objectives and research questions. The researcher also ensured that all questions were open-ended and semi-structured in order to allow the interviewer and the respondents the opportunity to ask questions; thereby allowing flexibility and freedom and ultimately gaining an improved understanding of the topic under discussion (Babbie, 2008; Kumar, 2011; Adler & Clark, 2014). All the respondents were informed prior to the interviews of the title of the topic, which contributed to the willingness of all the respondents to participate in the study.

The availability and willingness of naval command (admirals) and a major general (equivalent of a chief director) to voluntarily participate presented the researcher with the opportunity to have a dialogue with each of the participants in order to gain a rich understanding of the ideas, convictions, worldviews, and positions pertaining to the research question (Hussein, 2009; Babbie & Mouton, 2001). Although there are various types of interviews that may be considered, such as structured, unstructured, and semi-structured interviews, the researcher chose the semi-structured interview option as the familiarity of the topic was not a given. The researcher acknowledged the fact that a certain amount of trust and willingness to participate had to be established prior to the actual interviews being conducted. This was especially true with the Namibian and Mozambican participants who had never met the researcher before. From the onset, the interviewer provided the two neighbouring state participants some

background on himself and attempted to set the participants at ease in terms of the research topic.

According to Stake (1995), questions should not simply produce "yes" or "no" results but rather descriptive responses. Open-ended questions promote freedom of expression and allow the researcher to engage interviewees to derive unambiguous answers (Cohen, Manion & Morrison, 2000). It was also the intention of the researcher to ensure that the ethical aspects such as anonymity, confidentiality, and ambiguity were addressed by informing the respondents of all matters that might affect their honest and unbiased responses (Babbie, 2008).

5.11.3 Semi-structured interviews as a data-collection method

The researcher chose to make use of semi-structured interviews (Berg, 2001) as they allowed the researcher more flexibility with especially the Namibian and Mozambican participants, who indicated that they had certain time constraints imposed on them. For this reason, the researcher made use of a predetermined list of questions (see Appendix D) and also provided all the participants with a copy of these questions in order for them to gain a holistic idea about the entirety of the questions envisaged for the interviews. This also allowed all the participants to ask questions, which led to quality and rigour of engagement between the researcher and the participants. There are, however, also disadvantages that semi-structured interviews may present, such as unnecessary clarification, not following the chronological sequencing of the questions as stated in the questionnaire, possible skipping of questions and losing contextual meaning, and the interviewer being obviously biased towards the topic of the interview.

The researcher arranged with each participant that the planned time for each interview would be an hour, depending on availability. Each respondent was also reminded that the interviews were confidential and would be used strictly for academic purposes.

The steps prescribed by Guba and Lincoln (1994) were used as a guideline and involved the following:

- Identifying respondents: The respective respondents in the different sub-samples were identified based on criteria such as appointment, mandate, experience, and military-political influence.
- Invitation: The researcher first applied for authority from higher command to telephonically contact the headquarters of all respondents in order to confirm whether

invitations may be sent. This process commenced after approval was granted by the Faculty of Military Science Ethics Committee based on the interview guide that was submitted for approval by the researcher's supervisor.

- Arranging appointments: The researcher made appointments with all the respondents at their offices as it was the most suitable venues. The Mozambican and Namibian respondents agreed to meet at Naval Headquarters in Pretoria as facilitated by the Directorate: Navy Foreign Relations.

The interviews furthermore proved to be the most effective method to gain a better understanding of how each of the participants viewed the questions that were put to them. The participants at times asked questions that did not support the research questions. In view of these cases, the researcher had to diplomatically facilitate the discussion back to the research questions without compromising the freedom of participation of each participant. The researcher, however, experienced increased interest from the SAN command, staff flag officers, and G1. This provided the researcher with the confirmation that the engagement met the prerequisites of rigour, validity, truthfulness, accuracy, and richness.

The researcher explained and reiterated to all the participants that he was an environmental manager for the SAN, and that the research topic was chosen due to various national, regional, and international military, economic, and ecological imperatives that have come to his attention. The researcher in general built rapport with the participants during the respective interviews and he received invitations to return should the research require further engagement and clarity pertaining to the questions posed. The researcher realised that he had to ensure the quality of the interviews by communicating the purpose, outlining the procedure, summarising what was learned in the course of the interview, and confirming whether the interviewees had any questions concerning the subject matter (Kvale, in Kwak, 2011). The researcher also knew that he had the option to clarify any of the questions posed during the interviews with the relevant policy documents.

5.11.4 Regulatory database and supporting policy documents as a data-collection method

The researcher accepted the fact that there would be a disparity between the three respective navies in the research study when policy documents were sought. This is especially true as the concept of NTMPPFs between emerging navies are hardly mentioned or discussed on a scientific level; let alone among SADC navies. The researcher first sought to establish the

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regulatory framework that governs the topic of marine protection before conducting further research. This allowed the researcher to gain a better understanding of the worldview on the various laws and regulatory prerequisites that are aimed at protecting the marine environment of the three respective countries. This was done by means of desktop research, studying policy doctrine acquired during liaison with the relevant stakeholders, and personal interviews with subject matter experts. The researcher had extensive exposure to the political and military-strategic impetus that existed within the SMC of the ISDSC towards MDA and MSSs that were addressed at the SADC level.

The researcher also had access to policy documents pertaining to the blue economy and ecological management based on his appointment as an environmental manager in the SAN. These policy documents were chosen as a data-collection method as it would allow the researcher to identify if there was any correlation between the different datasets that were collected and if repetition of certain themes became apparent. The research focused only on the MPPs of the three respective navies – pending the availability thereof. This was done to keep the research focused and to ensure that only the MPP framework was assessed for the development of an improved model thereof. The researcher also only engaged naval command and support staff at the national level as this was the level at which policy development takes place, not at the operational level. The focus therefore was on the national and military-strategic level that had a limiting impact on available officials to interview.

The study sought to reach theoretical saturation in order to ensure accuracy and truthfulness but realised the limiting effect of the available officials. The study therefore developed theoretical explanations about the phenomena of emerging SADC naval MPP frameworks as a subset of the blue economy within the SADC.

Accuracy is as important as validity and reliability, which is only possible if the researcher ensures the following (Bolderston, 2012):

- Questions need to be relevant to the research questions and well thought through prior to each interview being conducted.
- The timing of the interviews requires the respondent to be afforded enough time to fully understand the context of the questions being posed. Furthermore, the interviews should preferably be timed in order for the interviewee to be relaxed and not under unnecessary stress. The interview should be timed in order for it to unfold without any pressure.

- The use of triangulation that encompasses the use of different sources of data in combination with the interviews.

- The utilisation of rich descriptions during the write-up of the study will convey a sense of interactive participation and allow the reader an acute awareness of the non-verbal communication that took place. This allows readers to gain a realistic impression of the data.

- It is important to refer to the possible bias of the researcher as their own interpretation could shape the data that are collected.

- The consideration given to contrasting experiences among the interviewees needs to form part of a negative case analysis in order to disprove the emerging theory.

The purpose of this study was to develop or generate grounded theory in an attempt to "conceptualize complex problems and obtain a new perspective on people's own first-hand experiences" (Wilson, Hutchinson & Holzemer, 2003). The analysis of the data and the subsequent interpretation thereof must be conducted in order to answer the set of research questions and must be aligned with the research objectives.

5.12   DATA ANALYSIS AND INTERPRETATION

Babbie (2008) postulates that the nature of qualitative data analysis comprises a non-numerical examination and interpretation of observations, for the purpose of discovering underlying meanings and patterns of relationships. Qualitative research is directly linked to the ability of the researcher to be conversant with the theory behind the research topic, as well as the theory that pertains to qualitative research itself. If the analysis conducted by the researcher is not linked to theory, then the results may be questioned. The researcher acknowledged from the onset that he had to be aware of not prejudging the results until all the data had been collected (McLelland, 1993). Emphasis was placed on inductive analytical approaches during the analysis of the interview data (Babbie & Mouton, 2001). The researcher furthermore decided to place the emphasis of the interviews on exploration rather than hypothesis testing because the bulk of the research lends itself to an exploratory approach (Kvale, 1996). The importance of this can be found in the fact that throughout the research, the researcher must observe certain patterns that could influence his objectivity and thereby compromise the accuracy of the research (Babbie, 2013).

This study followed an inductive research approach using grounded theory as the research design towards the development of a possible data-driven code and ultimately confirmation of the theory based on the research questions posed, the objectives set, and the patterns observed. The work of Boyatzis (1998), Babbie (2013), and Reige (2003) guided the researcher towards the identification of themes or codes from the various sub-samples. These codes or themes were analysed to determine whether a reoccurring pattern became visible. The reliability of the code was confirmed by the frequency of the repeated observation. The categorisation of the collected data was done in accordance with the research questions, the research objectives, and the design strategy of the research study. Strauss (in Kwak, 2011) and Boyatzis (1998) support the approach chosen by the researcher in attempting to identify recurring patterns or themes between the categories and the respondents and information sourced. The study followed the process of first grouping the raw data, and then commenced to code the respective themes that occurred in the transcripts of the interviews and other sourced data (Boyatzis, 1998; Babbie, 2008). The process can be explained as follows:

- Generation of a code or various codes;
- The review and deciphering of the code(s); and
- Determining the validity of the code(s) (Boyatzis, 1998).

The study therefore made use of thematic content analysis, which consisted of the identification, analysis, and documenting of the emerging themes. The foundation of the research was based on a theoretical framework and for that reason theoretical thematic analysis was used to identify the themes collected from the transcripts, policy documents, and respective interviews (De Vos *et al.*, 2011). The researcher transcribed the meta-data and continued to conduct the coding in order to determine whether there was correlation in terms of common themes (Bless *et al.*, 2013). The study corroborated the findings against the theoretical framework and the literature review in order to improve the transferability of the findings. This was essential as it formed part of the research strategy and the scientific basis that had to be maintained throughout.

5.13   PREPARING FOR RESEARCH REPORT WRITING

The preparation for writing the research report, as indicated in Figure 5.1 (Babbie, 2008; Kumar, 2011), entails the consolidation and culmination of the research findings,

recommendations, and conclusion. These findings and recommendations, as well as the conclusion on the possible development of an NTMPPF, are presented in Chapters 6 and 7.

5.14   ETHICAL CONSIDERATIONS

The researcher ensured that ethical aspects of the research, such as informed consent, were addressed by informing the respondents on all matters that might affect their honest and unbiased response (Babbie, 2008). According to Denzin and Lincoln (2000), there are specific guidelines for ensuring ethical conduct during the research process, namely informed consent, no deception, assurance of privacy and confidentiality, and accuracy. The researcher received consent from the SAN via the Directorate: Fleet Human Resources to conduct the research. Thereafter, the academic prerequisites were met and had to be considered throughout the process.

It is expected of all researchers to apply for approval from organisations prior to engaging with possible research participants. Research by Bless *et al*. (2013) shows that gatekeepers tend to exercise control over research domains and expect researchers to first approach the organisation before the identified participants may be approached. The researcher in this study also had to follow certain SAN channels of command to request the granting of approval to contact Navy Headquarters and the Department of International Relations and Cooperation in Pretoria.

The rules as set out by the Stellenbosch University ethics policy require researchers to obtain approval before they commence with their research. The researcher applied for ethical clearance from the Research Ethics Committee of Stellenbosch University, and the approval was granted (see Appendix C).

The granting of consent by individuals who are identified as possible research participants is a scientific prerequisite and requires the researcher to ensure that all participants are knowledgeable and informed of what the research entails (Babbie & Mouton, 2001; De Vos *et al*., 2011). The researcher ensured at length that all participants understood the purpose of the research and that they were not compelled to participate and that it was therefore voluntary. Prior to each interview, the researcher first determined whether the participants were comfortable with the audio recordings and indicated that the recorder could be switched off at their request if necessary. They were informed that they had the right to withdraw at any given point of time, with no negative implications. All the details in terms of research procedures

were explained and the researcher allowed for questions to be asked in the event of uncertainty. After all these matters were discussed, the participants were requested to acknowledge their willingness by signing the consent forms (see Appendix B) as provided by Stellenbosch University.

The ethics of research prescribes to the rule that no research participant is allowed to be identified or that the personal details that could compromise the research prerequisites are disclosed (Babbie & Mouton, 2001). The researcher therefore took absolute care that no information obtained was shared with anyone except his supervisors and that no one had access to it other than himself and his supervisors.

The researcher at all times ensured that the research participants were at ease, comfortable, and relaxed throughout the interviews. Bottled water was supplied and the interviews were conducted at a venue suitable and acceptable to each of the interviewees. As previously stated, the researcher ensured that all information pertaining to the research topic and the procedures to be followed was explained to the participants. The researcher observed that the participants showed keen interest even though it was a new concept to the majority of them (Babbie & Mouton, 2001; De Vos *et al*., 2011; Bless *et al*., 2013). From an ethical perspective the researcher came to the conclusion that both the Namibian and Mozambican respondents did not want to compromise the political relationship with South Africa due to limited knowledge on the subject matter. The response received minimised the data collected and required more focus to be placed on secondary sources.

The researcher acknowledged throughout the research study the importance of credibility, accuracy, and truthfulness. It is for this reason that all sources throughout the research were referenced and acknowledged according to the prescribed academic rules (Babbie & Mouton, 2001; De Vos *et al*., 2011; Bless *et al*., 2013).

5.14.1 Limitations of the study

The researcher has been employed in the DOD for 29 years, of which the last 18 years have been with the SAN. This might affect the judgement and position towards the critical needs of the SAN and might therefore influence the required unbiased approach to the research. The most significant constraint that affected the research was the impact that the COVID-19 pandemic had on the availability of research participants and the national restrictions imposed

on travel, which affected the researcher's movements. The researcher did attempt remote data collection but it was not successful.

The researcher expected that language could be a limiting factor with the Mozambican participant but it turned out that this officer was fluent in English. It was, however, the unforeseen COVID-19 pandemic that influenced the availability of research participants. The impact of COVID-19 also negatively affected the data collection process as all movement was suspended and did not allow for sufficient respondents to be interviewed in order to support saturation and the grounded theory approach.

This was followed by conflict in the northern part of Mozambique that impacted on the planned follow-up interview with a Mozambican naval respondent as arranged by the researcher with Navy Headquarters in Pretoria.

5.14.2   Delimitations

The topic of the study within the current regional context of the SADC with its various littoral challenges and constraints resulted in delimitation of the sub-sample to include only the Naval Command and Staff Council of the SAN, and the researcher furthermore chose to use only one representative from Mozambique and Namibia respectively.

There are 10 navies within the SADC but it is only the Namibian and Mozambican navies that border and share a littoral zone with South Africa, and it is for this reason that this study was delimited to focus only on these navies for the purposes of the research.

5.15   CONCLUSION

This chapter set out to describe the research process, research methodology, research aim, and research objectives. Specific theoretical frameworks were used to provide the most appropriate research approach and design for the research process in order to achieve the research objectives and successfully answer the research questions. This was followed by a discussion of the research method and research design. Data-collection techniques were discussed in terms of a brief definition, the type of data gathered, how the collected data were analysed, how they support the research objectives, and how issues such as quality, validity, dependability, credibility, and ethics were ensured.

The researcher systematically explained by means of the six-step research process how the research was executed in an organised manner. The qualitative data that were collected by means of semi-structured interviews and questionnaire guides proved to be supportive of the open-ended interviews that were conducted. The research design and methodology applied would, however, not be supportive of the research objectives if the theoretical framework and the theoretical sampling were not assessed in terms of the coding as postulated by Boyatzis (1998). The researcher therefore presents the results that were collected through the research process in Chapter 6.

CHAPTER 6:
RESEARCH FINDINGS

6.1   INTRODUCTION

The research thus far comprised an in-depth study of the theoretical meta-data and field research pertaining to the development of an NTMPPF among the three navies of South Africa, Namibia, and Mozambique. The broad approach taken in support of a comprehensive inquiry as required by grounded theory was to start at the UN level to gain an international perspective and to compare the various policy frameworks and repeatedly asking questions to remain objective and to exhaust all possible resources (Jansen, 2016; Cazeaux, in Sannegadu, 2019; Poincare, in Sannegadu, 2019; Markey & Tilki, 2014). The focus of the research then shifted to the AU and SADC littoral domains for a similar grounded theory assessment and comparison. Thereafter, the study focused only on the South African, Namibian, and Mozambican navies in order to ensure that the research objectives are achieved. This chapter presents the research findings based on the theories developed from an analysis of the observed and documented patterns and themes found in this study (Babbie & Mouton, 2001). In this chapter, the researcher provides possible contemporary recommendations in terms of the subject matter at hand.

The purpose of the analysis and the interpretation of the meta-data was to prove or disprove the presence of an NTMPPF among the Namibian, South African, and Mozambican navies within the SADC littoral context based on current policy options. This chapter essentially elucidates the meaning and seminal contribution through valid and relevant data analysis and findings (Walliman, 2011).

The research concepts of "relevance", "scientific rigour", and "quality" were used as guiding concepts in order to address the problem statement, namely *the absence of an NTMPPF among the navies of Namibia, South Africa, and Mozambique with specific reference to ocean governance, interoperability, and capacity building*. The use of "relevance" is due to the shortage of research conducted in the past on this topic and because of the increasing importance of using navies in support of a blue economy. The nature of the research, being a qualitative study that used interviews as the primary data-collection method, necessitated scientific rigour in order to exhaust all theories and resources as required by grounded theory (Babbie & Mouton, 2001; De Vos *et al*., 2011).

6.2   FINDINGS

The findings are based on an analysis conducted on the interviews and questionnaire as the primary data sources, supported by articles, journals, and other literature studies, to collect data in order to gain a better understanding of the worldview of neo-regional transboundary naval marine protection among navies. The approved questionnaire framework (see Appendix D) was sent to each interviewee and research participant in order for the participants to prepare for the interview and gain a better understanding of what the research comprised.

All the research participants indicated that they preferred to address the topic of the interview framework and not answer each question individually. The researcher at the beginning of each interview informed the participants of the research objectives and the research question. For this reason, the analysis and subsequent coding therefore refer to and focus on the three factors based on the questions in the questionnaire (see Appendix D). The focus of the interviews commenced with emphasis on the first study area.

6.3   STUDY AREA: SADC LEVEL

6.3.1   Introduction

Secondary Research Question: *What is the current status quo of MPP frameworks in the Namibian, South African, and Mozambican navies?*

The first study area was measured based on the influence of the following three factors as discussed in Chapters 2, 3, and 4:

- Focus of transboundary MPP development towards ocean governance;
- Focus of transboundary MPP development towards interoperability; and
- Focus of transboundary MPP development towards capacity building.

6.3.2   Questions relating to ocean governance policy at the SADC level

The architectural utility of ocean governance frameworks for the development of MPPs and the subsequent international pressure exerted by the AU on RECs such as the SADC SMC formed the foundation for findings and recommendations made towards the development of an NTMPPF for the three navies.

The interview framework for this study was developed with the view to group the questions into the following three series using the abovementioned three factors (see Appendix D) as depicted in Figure 6.1:

- Importance of ocean governance in the SADC, the defence forces, and their navies;
- Importance of interoperability in the SADC, the defence forces, and their navies; and
- Importance of capacity building in the SADC, the defence forces, and their navies.

Figure 6.1: Hierarchical transboundary MPP analysis
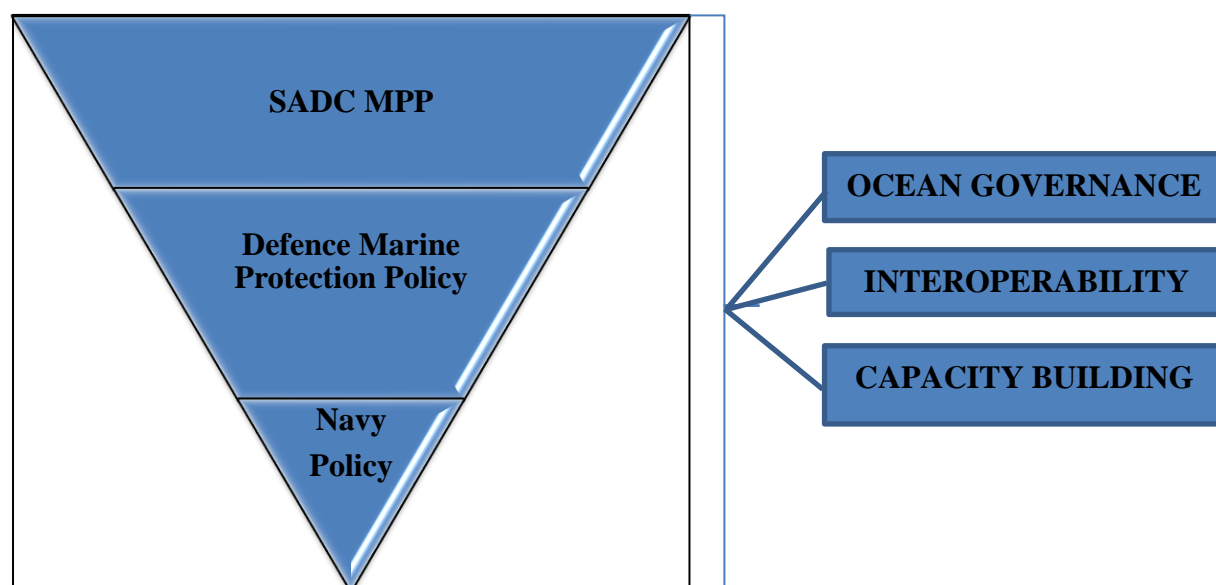
Source: Author's depiction of analysis (2020)

The rationale for this approach was to reach theoretical saturation in terms of the extent of ocean governance frameworks and to establish whether thematic relationships exist between the different emerging theories. The first series of questions focused on the existence and perceived (worldview) importance of ocean governance within the SADC and regional member states.

The second series of questions focused on marine protection in the respective SADC defence forces of the mentioned littoral states. It was important to determine if a thematic relationship exists and if the relationship is collectively shared by the three defence forces. The research was conducted in order to assess if ocean governance, interoperability, and capacity building were perceived to be equally important by the three defence forces and if thematic relationships exist between these three factors that could be triangulated.

The third series of questions focused on the role of the three SADC navies and their commitment through naval policy to transboundary marine protection. The last series of questions dealt with Operation Phakisa as it includes the concept of the blue economy and speaks to AIMS 2050 and Agenda 2063, which ensure policy alignment and synergy.

The rationale for the three series of questions was explained to the interviewees and time was afforded to clarify any uncertainties. The SAN respondents showed interest in the subject matter but indicated that they questioned their own input as the subject matter of marine protection started to become a regulatory imperative within the strategic naval planning domain only in the past two decades. The interviews were semi-structured and open-ended discussions using ocean governance as the point of departure.

The breadth and overlapping nature of interrelated topics discussed by the respondents in the interviews necessitated the interviewer to both "shorten" but still select transcriptions of each interview in order to present the rich and descriptive worldview of each interviewee in order to add to the quality, validity, credibility, and scientific rigour of the study.

The first step with the first series of questions was to discuss and analyse the relevant legal parameters (scope of ocean governance), who the stakeholders are, and to determine if there is a need among the three navies for a marine protection (ocean governance) policy review or the development of a transboundary MPP framework.

The following questions were presented to the respondents (see Appendix D):

- Question 1.1: Does legislation exist in terms of marine protection awareness or marine resources protection in South Africa, Mozambique, and Namibia, and, if so, kindly mention what.

- Question 1.2: Does SADC marine protection transboundary policy exist, and what does it entail within the SADC context?

- Question 1.3: If so, which White Papers on marine protection exist in Namibia and Mozambique?

- Question 1.4: Do Namibia and Mozambique have a coastal policy that provides a regulatory framework for coastal development/protection as what exists in South Africa (the National Environmental Management: Integrated Coastal Management Act, No. 24 of 2008)?

- Question 1.5: Is it important for the three countries to ensure the protection of the marine environment within the SADC EEZ and shared governance of the high seas?

- Question 1.6: Do the governments of the three states value the contribution of the navies with regard to EEZ constabulary, diplomatic, and survey roles?

- Question 1.7: Is there a need from a (inter)governmental point of view in the future within the SADC to show / be committed to / be involved in naval force projection/presence towards marine resources protection?

- Question 1.8: What have the three countries done to utilise the role of the navies in their EEZs?

- Question 1.9: Is there political support for navies to take custodianship of marine environment protection, on state level and regionally, such as within the SADC and AU?

6.3.3   Responses relating to ocean governance at the SADC level

The first series of questions in support of Research Objective 1 received the following (verbatim) responses from the various SANDF interviewees:

"The role of the SAN in terms of marine protection within Namibia and Mozambique, Operation COPPER, we have embarked Mozambican officers and they do enforce fishery infringement and stuff like that plus the presence of our ships up there increase[s] security in the area, maritime security in the area, and it actually enabled Mozambique after the hijacking by pirates of the Vega 5, which was a Mozambican Trawler. The fishermen were too scared to fish for quite a while and then our presence there stabilised the situation there and allowed the fishermen to go back to sea again. Our own political principals are very favourable towards Mozambique. Our political principals ask questions when we don't do COPPER, when our sea hours are down and that, and what are we doing with the money. What we are doing with the money is that our HR [Human Resources] budget has superseded that supplementary COPPER money that we got, at least two years ago. We get supplementary money for the Maritime Security Strategy but that has been absorbed by Item 10 basically with the increases. We do enjoy political support here for the conducting of Operation COPPER. They get twitchy when we don't go there. We are [the] SADC's navy. Mozambique has catamarans and Namibia has one frigate-size vessel that hardly goes to sea. Prof. Renford Christie said at a conference there will always be a navy of the

South African coastline. You must decide whose navy that will be. If we are not here, there will be a vacuum and it will suck everyone in. France, India, and everyone will be coming here. We have such a small navy. Our budget will not operate an aircraft carrier for one day. A transboundary neo-regional agreement is possible but it requires political energy and political support. The ministers need to drive these things. It will have to be from all parties and they will have to visit each other. The SADC bilateral and trilateral MOUs first need to be approved in terms of the Maritime Security Strategy. In 2010, I was involved in the first summits. You need a champion to drive it but it can be done. Bilaterals go much quicker than trilaterals. They take forever. With previous policies, there was no shared purpose, everyone had their own agenda. Actual, real political will and funding of new policies are a real concern to me. We are not funding any of the policy drives due to our weak economy. If we are not careful, there will be a new policy but it will be somebody else's that they fund and that carries their political will. We don't have the capacity to develop a new policy on our own and we are dependent on external role players and will have to negotiate with them for sure. Your priorities change at strategic level, and when it changes, your capabilities change" (N1).

"Based on my observation since I have moved into the office in terms of our diplomacy, we are doing very well in the SMC. The next chair is the DRC, that are very energetic. The governance that we get, I don't know any other governance other than the SADC Maritime Security Strategy. The protection of marine resources is probably with the Department of Energy and Department of Environmental Affairs, Forestry and Fisheries [sic]. We are going to review the SADC Maritime Security Strategy. The Maritime Security Strategy only focused on the eastern coastline of Southern Africa but did not include the western coastline for a very good reason. At the time of the appreciation, the threat was only from the east. But if you look at the Gulf of Guinea, the threat is moving in a southerly direction and therefore we must readjust our strategy to include the west. Maritime security cooperation is there. For South Africa, we have our own maritime security strategy. When you look at the SADC strategy, it is a cut and paste from the South African strategy. Ours are forming a baseline to that. They can only provide their marines as crews. That is all the Mozambicans can provide, as they don't have the resources. We also have Ops CORONA where we engage Namibia. Exercise GOLFINHO was an inland exercise to test the collaboration with Namibia.

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We have a more common understanding with the Namibians than some of the other SADC countries. For a transboundary policy framework, we need to have exercises with countries providing platforms. Those countries that do not have platforms can provide marines. There is a plan for next year for [the] SADC to have an exercise. I have been given an instruction to plan for an African naval symposium and the other countries are very much in support of that. There must be governance architecture to ensure that all stakeholders are forced to collaborate with each other. Culture of secrecy is out except that there is an operation. The Indian Navy wants us to collaborate but we have a problem with the availability of our platforms. Budget cuts crippled us. The change of mindset that we want to portray the SAN to the country must change. We must rebrand ourselves. We need institutional governance architecture that will bind the maritime security stakeholders to have a common operating picture. Without that, we will be disjointed. The Comprehensive Maritime Transport Policy from the Department of Transport is guidance towards a transboundary policy framework as it is very detailed. The question is if the policy documents are inclusive. Civil-military situations become very complicated. There are too many gaps. Department of Environmental Affairs are using OCIMS developed by the CSIR, you have SAMSA [South African Maritime Safety Authority] using satellite feeds, etc. There are so many platforms that are supposed to be used to paint a common picture but they remain disjointed and fragmented. If we as a nation fail to bridge the gap, then how are we going to collaborate with our neighbours on maritime security? Social programmes take priority over security programmes. They won't hesitate to take money from security. How do we communicate the need to have the South African Navy? We need to move away from the conventional war-fighting approach and rebrand ourselves. We are a supporting agency in the protection of the South African littoral waters. We assist other government departments such as TNPA [Transnet National Ports Authority], DAFF [Department of Agriculture, Forestry and Fisheries], and SAMSA when called upon in terms of protecting marine resources. We have publications that speak to marine protection governance and this is aligned with governmental and regional policy frameworks such as SAMSA" (N2).

"It is imperative to articulate the military programme needs in order to align it with the social programme needs that politicians require, as is the case with Operation Phakisa. The Navy needs to integrate our military-strategic objectives into that of our

political leaders. Key to this is to ensure that a balance is maintained. The new five-year strategic business plan for the SANDF is coming to an end next year in March and the new plan will be for 2020-2025. If socio-economic objectives are a key performance indicator, then that need[s] to be given in order to support the outcomes directed by parliament. The South African Navy has a constitutional obligation to protect the marine resources not only out of a legal obligation but also from a socio-economic perspective to maximise the utility of the resources available to us. Protection of marine resources is not our primary focus due to the nature of our organisation that focuses on force preparation and force deployment. I cannot speak on behalf of Fleet Command, but at Naval Headquarters it is assumed that by implication we take care of the marine environment by doing our business whilst being compliant. For the sake of international goodwill and to maintain good international relations with our SADC member states, it is in the best interest of South Africa and [the] SADC to communicate the commitment of the SAN to support all endeavours to help protect our marine resources. The support can also include free training opportunities to our neighbouring states. I see governance, interoperability, and capacity building, as mentioned by you, to be intricately linked to each other. At any point in time, we always have Namibian technical ratings under training at SAS WINGFIELD. The Navy has bilateral agreements with both Mozambique and Namibia. From a maritime defence planning perspective and an execution perspective, the navy does the things in terms of ocean governance. Depending on the variables for where strategy is discussed, whether it is with the minister, with the Military Command Council, the collateral utility of the Navy from an over and above narrow combat perspective, it is always articulated. The principals also understand it very well" (N3).

"We are talking maritime security and therefore I might have mentioned that we are relooking at the SADC Maritime Security Strategy as we speak. We are also busy looking at the national maritime security strategy, which is at the moment led by the Department of Transport and includes all role players of which defence is one of the pivotal roles of maritime security and in that we include the management of marine resources, the maintenance of our territorial integrity, the preservation of the maritime environment, and safety at sea. As littoral navies, we haven't given a policy framework consideration from a SADC perspective but we are currently busy with Operation COPPER, which as you know is against piracy, but we are also using it to take on

members of the police on board with us to ensure we are looking at anti-smuggling and also working with the Mozambicans. In order to keep the budget, even the reduced budget, in order to keep it, we will have to prove to our politicians and our people that we are serious of what we've got using it to the best for South Africa and showing other government departments that we are there to assist them to as best possible and thereby gaining the hearts and minds of the people to support the blue economy" (N4).

"I believe strongly that we want to maintain a very good and regional presence and that is anyway happening as we speak. We need to share our knowledge with the rest of the continent. Training members of the DOD, [they] need to be trained in inter-agency, inter-operational, and joint operational operations, which Training Command is actually focusing on. The future is about inter-agency, is about integrating technology in operations. Inter-agency and joint operations and integrated operations is a focus for Training Command. Our doctrine is landward. The leg of oceans is an important part of training. With caution and respect, I know our sister countries are dependent on South Africa. I believe strongly that we want to maintain a very good and regional presence and that is anyway happening as we speak. The alignment of our doctrine is landward, which, if you follow our historical background, was towards protecting natural land resources and not necessarily marine resources" (G1).

The following is the response from the questionnaire sent to the Namibian Navy relating to whether SADC marine protection transboundary policies exist and, if so, what they entail within the SADC context.

"SADC member states are currently busy with the draft. The policy will entail cooperation on dissemination of information, domestication, and implementation of all relevant regional and international treaties relating to marine environment. However, the SADC Protocol on Fisheries does exist and it entails harmonisation of legislations, management of shared resources, and protection of the aquatic environment" (NN1).

The following is the response from the Namibian Navy based on whether Namibia has a coastal policy that provides the same regulatory framework for coastal development/protection as what exists in South Africa (the National Environmental Management: Integrated Coastal Management Act 24 of 2008):

"Yes" (NN1).

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The following is the response from the Namibian Navy based on the question of whether the governments of the three states value the contribution of the navies with regard to EEZ constabulary, diplomatic, and survey roles:

> *"Yes, it does; that's why the government is investing in naval assets to curb all illegal activities happening in the Namibian EEZ, as well as protecting its marine environment"* (NN1).

The following is the response from the Namibian Navy on whether there has been any progress in terms of ICM in the Namibian Navy:

> *"No"* (NN1).

The interview response from NA1 to Series 1 was that the Namibian government is very supportive of the various regional and transboundary ocean governance engagements between the respective SADC states. The Namibian government is, however, constrained by various political and economic influences that prevent the NDF from being an active stakeholder in maritime security operations on the west coast of the SADC littoral zone that seek to improve ocean governance.

The interview response from MA1 to Series 1 was that the Mozambican government is very supportive of securing the littoral zone shared by South Africa and Mozambique. This study has, however, found that Mozambique is very dependent on the South African government in terms of supporting Mozambique in securing the Mozambique Channel in order to ensure safe passage for international trade and to protect marine resources. It is for this reason that the Mozambican government is supportive of Mozambican Navy "sea-riders" to accompany SAN patrol vessels during Operation COPPER; thereby improving capacity building and gaining more knowledge on maritime security and ocean governance.

The responses by C1 and C2 to the questions posed in Series 1 were that there is a distinct difference between interoperability and integration. The opinion shared by C1 and C2 is that SADC member states that intend to improve interoperability and integration need to first address the military sensitivity of doctrine that will be shared in order to improve maritime security and ocean governance. This, according to C1 and C2, also inevitably presents certain challenges as the different SADC member states do not operate on vessels that have similar communication systems and levels of operational readiness and are at a critical level among the SADC naval forces. The challenge, according to C1 and C2, is that the SADC member

states are, at this stage, not mandate driven but more budget driven and this can be seen in the play-off between social and security imperatives at the governmental level.

The intention of this study is to make inferences at each level (SADC, defence force, and navy) in order to determine if a thematic relationship exists and, if so, to what extent. Thereafter, an analysis will be conducted to determine if lacunas exist in the policy needs; after which findings will be made.

6.3.4   Inferences on ocean governance at the SADC level

All the participants in this study were involved in the military-political processes of their political principals and, as such, were acutely aware that their input and naval command guidance needed to be in support of the current political will. It was important to ensure that the interviews remained semi-structured and open-ended as it allowed the high-ranking interviewees the freedom to express their opinions and ideas on naval-initiated marine protection. Naval-initiated marine protection is a subject that is politically supported by all defence forces and navies across the SADC, although the SAN, the Namibian and Mozambican navies' capacity is under severe constraints (N1, N2, N4, MA1, NA1, and NN1; Gove, 2011). Although the responses were elaborate, the inference is made that the topic of ocean governance is a subject that forms part of command meetings of the three defence forces in the SADC, especially when the concepts of a blue economy and maritime security are discussed.

Questions 1.1 to 1.9 dealt with the concept of ocean governance and were articulated by the SAN interviewees to encompass naval doctrine, regulatory frameworks such as UNCLOS and marine pollution accords, and the blue economy drive by the South African government. NA1, MA1, and NN1 acknowledged that the SADC SMC is in the process of addressing ocean governance, with the SAN as a leading stakeholder. The interviewees from Mozambique and Namibia indicated that the subject matter of this study will increasingly require further research as marine resources are under increasing threat and the SADC is compelled to take custodianship of all its marine resources. The thematic pattern of all parties agreeing that more research is required on ocean governance and more specifically naval-initiated marine protection was observed.

Extrapolating from the analysis of the data, the deduction can be made that ocean governance and maritime security are observed to play an integral role in the planning and deployment of naval assets in the sense that marine pollution and discarding of hazardous waste at sea are

prohibited and a cross-sectoral approach is therefore required. Ocean governance, as referred to by N1, N2, N4, MA1, NN1, and NA1, also includes reporting illegal activities to the relevant authorities. The response by N1, N2, N3, N4, G1, NN1, NA1, MA1, and NN1 showed a strong thematic relationship in terms of their view on ocean governance that includes MDA, constabulary roles, and intermittent diplomatic roles when tasked by higher command at the SADC level. N1, N2, G1, N4, NA1, MA1, and NN1 were very adamant that the role of navies is not properly understood by politicians (SADC) or citizens and that this mandate must be better communicated to policy makers and politicians alike. The thematic patterns observed include the following:

- The SAN is currently the only SADC member that has significant naval resources.
- The SAN, the Namibian Navy, and the Mozambican Navy are intricately dependent on one another within the framework of the SADC SMC.
- The three navies in this study require more SADC research on how to improve their MDA and ocean governance policies and how to improve their commitment to the protection of national and regional marine resources.
- The three SADC countries in this study are all experiencing severe political and economic volatility and pressures.

The inference is made that there appears to be synergy among the three regional stakeholders within the SADC framework but that more negotiations and stakeholder engagement must take place in order to create an environment that is conducive for their respective defence forces to be able to execute their national and regional mandates.

6.4   STUDY AREA: DEFENCE FORCE LEVEL

The next series of questions, responses, and inferences are at the defence force level.

6.4.1   Questions relating to ocean governance at the defence force level

The objective of the second series of questions was to incrementally gain a better understanding of the views held by interviewees in an attempt to exhaust all possible theory relating to existing transboundary MPPs among the three SADC defence forces. The thematic relationship and subsequent alignment of MPP frameworks between the SADC as a region and that of the three defence forces as researched are analysed.

Questions 2.1 to 2.11 (see Appendix D) are aligned with the previous series of questions as the mandate of defence forces is derived from government policy.

- Question 2.1: Do the SADC navies (South Africa, Mozambique, and Namibia) show strategic commitment / regional ownership towards marine protection and coastal security?

- Question 2.2: What would the typical MPP framework objectives be that will be pursued by the three littoral states?

- Question 2.3: Have there been any evolutions in terms of ICM / marine protection towards/among or within the three countries, and, if so, what?

- Question 2.4: Do navies a play role in the marine protection of EEZs and high seas within the SADC, and, if so, what?

- Question 2.5: Does synergy exist between political and military views in terms of an MPP framework?

- Question 2.6: Does synergy (agreement) exist between political and military views in terms of MPP development?

- Question 2.7: What, if any, influence do SADC navies have on the west and east coasts of Southern Africa in terms of constabulary and diplomatic roles?

- Question 2.8: Is there sufficient naval similarity in terms of governance, training, maritime security, and interoperability among the three navies to promote synergy towards an MPP framework?

- Question 2.9: What are the major challenges in terms of developing an MPP framework (such as funding, training resources, law enforcement, and jurisdiction)?

- Question 2.10: Would the promotion and the development of marine protection within a naval context provide enough opportunities and naval partnerships for political support?

- Question 2.11: What tailor-made actions have to be taken to meet country-specific needs and priorities in terms of an MPP framework?

6.4.2 Responses relating to ocean governance at the defence force level

The responses by the various participants are as follows:

"The SADC bilateral and trilateral MOUs first need to be approved in terms of the Maritime Security Strategy. In 2010, I was involved in the first summits. You need a champion to drive it but it can be done. Bilaterals go much quicker than trilaterals. They take forever. With previous policies, there was no shared purpose, everyone had their own agenda. Actual, real political will and funding of new policies are a real concern to me. We are not funding any of the policy drives due to our weak economy. If we are not careful, there will be a new policy but it will be somebody else's that they fund and that carries their political will. We don't have the capacity to develop a new policy on our own and we are dependent on external role players and will have to negotiate with them for sure. Your priorities change at strategic level, and when it changes, your capabilities change" (N1).

"Based on my observation since I have moved into the office in terms of our diplomacy, we are doing very well in the SMC. The next chair is the DRC, that are very energetic. The governance that we get, I don't know any other governance other than the SADC Maritime Security Strategy. The protection of marine resources is probably with the Department of Energy and Department of Environmental Affairs, Forestry and Fisheries [sic]. We are going to review the SADC Maritime Security Strategy. The Maritime Security Strategy only focused on the eastern coastline of Southern Africa but did not include the western coastline for a very good reason" (N2).

"For South Africa, we have our own maritime security strategy. When you look at the SADC strategy, it is a cut and paste from the South African strategy. Ours are forming a baseline to that. They can only provide their marines as crews. That is all the Mozambicans can provide, as they don't have the resources. We also have Ops CORONA where we engage Namibia. Exercise GOLFINHO was an inland exercise to

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test the collaboration with Namibia. We have a more common understanding with the Namibians than some of the other SADC countries. For a transboundary policy framework, we need to have exercises with countries providing platforms. Those countries that do not have platforms can provide marines. There is a plan for next year for [the] SADC to have an exercise. I have been given an instruction to plan for an African naval symposium and the other countries are very much in support of that. There must be governance architecture to ensure that all stakeholders are forced to collaborate with each other. Culture of secrecy is out except that there is an operation. The Indian Navy wants us to collaborate but we have a problem with the availability of our platforms. Budget cuts crippled us. The change of mindset that we want to portray the SAN to the country must change. We must rebrand ourselves. We need institutional governance architecture that will bind the maritime security stakeholders to have a common operating picture. Without that, we will be disjointed. The Comprehensive Maritime Transport Policy from the Department of Transport is guidance towards a transboundary policy framework as it is very detailed. The question is if the policy documents are inclusive. Civil-military situations become very complicated. There are too many gaps. Department of Environmental Affairs are using OCIMS developed by the CSIR, you have SAMSA using satellite feeds, etc. There are so many platforms that are supposed to be used to paint a common picture but they remain disjointed and fragmented. If we as a nation fail to bridge the gap, then how are we going to collaborate with our neighbours on maritime security? Social programmes take priority over security programmes. They won't hesitate to take money from security. How do we communicate the need to have the South African Navy?" (N2).

"For the sake of international goodwill and to maintain good international relations with our SADC member states, it is in the best interest of South Africa and [the] SADC to communicate the commitment of the SAN to support all endeavours to help protect our marine resources. The support can also include free training opportunities to our neighbouring states. I see governance, interoperability, and capacity building, as mentioned by you, to be intricately linked to each other. At any point in time, we always have Namibian technical ratings under training at SAS WINGFIELD. The Navy has bilateral agreements with both Mozambique and Namibia. From a maritime defence planning perspective and an execution perspective, the navy does the things in terms of ocean governance. Depending on the variables where strategy is discussed, whether it

is with the minister, with the Military Command Council, the collateral utility of the Navy from an over and above narrow combat perspective, it is always articulated. The principals also understand it very well" (N3).

"We are talking maritime security and therefore I might have mentioned that we are relooking at the SADC Maritime Security Strategy as we speak. We are also busy looking at the national maritime security strategy, which is at the moment led by the Department of Transport and includes all role players of which defence is one of the pivotal roles of maritime security and in that we include the management of marine resources, the maintenance of our territorial integrity, the preservation of the maritime environment, and safety at sea. As littoral navies, we haven't given a policy framework consideration from a SADC perspective but we are currently busy with Operation COPPER, which as you know is against piracy, but we are also using it to take on members of the police on board with us to ensure we are looking at anti-smuggling and also working with the Mozambicans" (N4).

"Training members of the DOD includes the ocean. Inter-agency and joint operations and integrated operations is a focus for Training Command. Our doctrine is landward. The leg of oceans is an important part of training. With caution and respect, I know our sister countries are dependent on South Africa. As part of the SADC region, it is not only the right thing to do but we are obligated to assist our sister countries. It is the South African approach that we start with the region we are part of the continent. We are expected to play a role. We are obligated to ensure that further research into regional training needs to be investigated. I believe strongly that we want to maintain a very good and regional presence and that is anyway happening as we speak. We need to share our knowledge with the rest of the continent. Training members of the DOD need to be trained in inter-agency, inter-operational, and joint operational operations, which Training Command is actually focusing on. The future is about inter-agency, is about integrating technology in operations" (G1).

The response from NN1 in terms of the role of the NDF relating to ocean governance ("Does the Namibian Navy show strategic commitment / regional ownership of marine conservation?") was as follows:

"Yes, the navy mission is to conduct naval operations in defence of the Republic of Namibia, its citizens, and national interests; conduct operations other than war in

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support of national and sub-regional security, as well as international peace. Some of the national interest that Namibia seeks to achieve in the maritime sector is [a] safe marine and coastal environment that provides for the wellbeing of people, a productive marine and coastal environment that enables for blue economy growth, and leads to empowerment and equality for the people" (NN1).

The interview response from NA1 to Series 2 was that the NDF is very aware of the importance of protecting the marine resources in its EEZ. The challenge, however, is that the Namibian Navy is not sufficiently capacitated to effectively patrol its vast coastline. The scientific research and policy development that the Namibian Fisheries Department and the Namibian Transport Department are conducting are shared with the NDF in order to improve the cross-sectoral policy development between Namibian government departments. NA1 indicated that, according to his knowledge, there is still a need to improve the contribution that needs to be made by the Namibian Navy in terms of improved maritime security and the protection of marine resources.

The interview response from MA1 to Series 2 was that the MDF is completely reliant on its fellow SADC member states in all endeavours relating to the protection of the Mozambican EEZ, as well as the development of MSSs that include policies relating to the protection of marine resources. The current political volatility in Mozambique is also not favourable for assessing whether enough synergy exists for military and political cohesion towards regional MSSs. All support provided by the SAN to Mozambique is welcomed but this cannot be reciprocated as the MDF does not have effective sea-going capability or a well-established naval doctrine.

6.4.3   Inferences on ocean governance at the defence force level

The analysis of the responses made by N1, N2, N3, N4, NN1, NA1, and MA1 in terms of the concept of shared doctrine, shared MSS, and shared custodianship of regional littoral areas, which were repeatedly emphasised by all respondents and not only the SAN, indicates an observable thematic relationship and pattern. The interviewees from Mozambique and Namibia acknowledged the importance of protecting marine resources but also alluded to the fact that environmental management is not integrated into their DOD to the same extent that the SAN has integrated it. The response by NN1 indicated that the protection of marine resources is co-managed by the Namibian Ministry of Works and Transport as the lead agency and supported

by the NDF. The interplay between historical and contemporary naval doctrine and the cited realisation among the senior naval respondents that conventional naval thinking requires review was often noted during the discussions and responses. It was observed from the responses by MA1 that the MDF acknowledges the real influence that political volatility has on its operational readiness and the fact that the Mozambican coastline is completely exposed and susceptible to exploitation of its marine resources.

The inference is made that all the respondents of the different sub-samples were informed and aware of marine protection legislation at national and regional levels, as well as the importance thereof to a greater or lesser extent. Questions relating to management and protecting of the EEZ and the shared ocean governance obligation that rests upon the three nations were met with assertive and positive responses that indicated consensus among the participants that there is a need for cooperation, transboundary agreements, and intermittent joint exercises among the navies. The literature studies on ocean governance in the AMD and the SADC in Chapters 2, 3, and 4, and more specifically literature on the interaction between maritime security and marine protection, support the response of the interviewees. The observation is made that a distinct thematic relationship and pattern exist among the participants when the topic of ocean governance among navies is raised. The constraints imposed by political volatility and lacking budget allocation were, however, raised as serious concerns by all respondents, with no exception.

It was repeatedly observed during the interviews that the SAN respondents were more knowledgeable on legislation related to marine protection than the Mozambican and Namibian counterparts. It was also noted that both the Mozambican and the Namibian interviewees did not refer to specific legislation but knew and commented that their governments valued the national marine resources and supported the constabulary patrols of the SAN as part of Operation COPPER.

Questions 2.1 to 2.11 were used to analyse the role of defence forces in the protection of marine resources. The researcher observed a strong correlation between the replies from the respondents and the literature studies in Chapters 2, 3, and 4 that were repeated regardless of the nature of the question.

The responses received from N1, N2, N3, N4, NN1, NA1, and MA1 regarding the existence of an MPP made it clear that the mandate of navies is to protect the sovereignty of their territorial waters. Their secondary role is to report illegal activities at sea to the appropriate authorities or

to assist in apprehending transgressors. The current SADC MSS serves as a policy instrument to augment ocean governance both nationally and regionally in the SADC. The political, economic, social, and environmental constraining circumstances that each of these developing littoral states inherently possesses and shares, as analysed in Chapter 4, indicate that the respective governments and their navies are increasingly affected by the maritime security and ecological instability such UUI fishing and of their EEZs.

The interviews conducted with N1, N2, N3, N4, G1, NN1, MA1, and NA1 presented the following observed patterns and presented strong thematic saturation based on the literature studies in Chapters 2, 3, and 4:

- After comparing the data, similar thematic patterns were observed between the interviewees on the increasing importance of supporting the South African government in the drive towards a blue economy. The researcher noted that all the strategic-level SANDF appointees interviewed acknowledged a lacuna and that the utility of the SAN in support of the government requires review. The lacuna refers to an improved and informed understanding of how to integrate and implement the relevant regulatory frameworks such as Operation Phakisa, the National Development Plan, and AIMS 2050 in order to remain mission ready but also to support the national and regional socio-economic requirements in a constrained environment.

- All the SANDF interviewees referred to the need for review of the integration of the blue economy concept into the doctrine and policy processes of the SANDF, as well as how planning previously focused on a landward economy and not a blue economy. Both N1 and G1 specifically reiterated this sentiment and indicated that the future SANDF will be compelled to move away from a land-focused position and more to an ocean-focused economy, with the SANDF aligning itself accordingly. NN1 indicated that the Namibian government is in the process of developing cross-sectoral policy processes as part of a drive towards expanding the maritime industry of Namibia and for that reason requires a fully operational naval force that needs to secure its EEZ. MA1 reiterated the constraining context in which Mozambique finds itself.

- The documentary analysis presented evidence that the SAN has considered all the relevant regulatory frameworks pertaining to a blue economy, as well as addressing the policy requirements as naval custodians of marine life. This included a revised environmental policy for the SAN (see Figure 4.6).

- The SANDF is currently the only SADC member that has significant naval resources and more established naval policies and doctrines on environmental and marine protection.

- The SANDF, NDF, and MDF are intricately dependent on one another within the framework of the SADC SMC.

- The three defence forces in this research require more SADC research on how to improve their MDA and ocean governance policies, as well as their commitment to the protection of national and regional marine resources.

The interviews and input from the respondents in the study show a correlation between their understanding and viewpoints of ocean governance and that of the literature studies when compared to AIMS 2050, the SADC MSS, and Agenda 2063. The question that the impartial observer will ask is: Can an MPP framework be developed and implemented?

The application of grounded theory requires exhausting all possible theory and sources when analysing data, which requires the question to be asked why the interviewees did not include and acknowledge the reality of political bias and subsequent support towards a landward military doctrine approach when addressing the blue economy. The responses of N1, G1, NN1, NA1, and MA1 alluded to the fact that navies will increasingly play a more prominent role but that archaic thinking needs to be addressed through considered articulation by DOD principals during their deliberations at national and regional levels. The Mozambican and the Namibian participants acknowledged that their defence forces do not compare to the SANDF but that the importance of navies is increasingly acknowledged. The reviewed literature studies confirmed these statements. This sentiment also confirms the guidelines issued by the UN, AU, and SADC and is also visible in the position of the SADC SMC in terms of the MSS. The evidence in this chapter, however, indicates that for developing littoral states that data were gathered on, to transform to a blue economy, requires carefully planned and articulated neo-regional and national awareness that needs to manifest across all sectors and political parties with appropriate funding and political will.

6.5   STUDY AREA: NAVY LEVEL

The next series of questions, responses, and inferences focus on the respective navies.

6.5.1 Questions relating to ocean governance at the navy level

Questions 3.1 to 3.7 (see Appendix D) are aligned with the previous series of questions as the mandate of navies is derived from defence force policy.

- Question 3.1: What would the typical MPP framework objectives be that will be pursued by the three littoral states/navies?
- Question 3.2: What is the role of the SAN / Namibian Navy / Mozambican Navy in terms of marine protection within the South African / Namibian / Mozambican context?
- Question 3.3: What is the role of the SAN in terms of MDA within the Namibian and Mozambican context?
- Question 3.4: What is the view of the SAN on the CEMZA?
- Question 3.5: Do the three navies have an environmental protection policy?
- Question 3.6: Would the promotion and the development of marine protection within a naval context provide enough opportunities and naval partnerships for political support?
- Question 3.7: Would all three navies agree to a combined trilateral development of an MPP framework?

6.5.2 Responses relating to ocean governance at the navy level

The following responses relate to how ocean governance is perceived at the navy level:

"We are [the] SADC's navy. Mozambique has catamarans and Namibia has one frigate-size vessel that hardly goes to sea. Prof. Renford Christie said at a conference there will always be a navy of the South African coastline. You must decide whose navy that will be. If we are not here, there will be a vacuum and it will suck everyone in" (N1).

"The governance that we get, I don't know any other governance other than the SADC Maritime Security Strategy. The protection of marine resources is probably with the Department of Energy and Department of Environmental Affairs, Forestry and Fisheries [sic]. We are going to review the SADC Maritime Security Strategy. The Maritime Security Strategy only focused on the eastern coastline of Southern Africa but did not include the western coastline for a very good reason. At the time of the appreciation, the threat was only from the east. But if you look at the Gulf of Guinea,

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the threat is moving in a southerly direction and therefore we must readjust our strategy to include the west. Maritime security cooperation is there. For South Africa, we have our own maritime security strategy. When you look at the SADC strategy, it is a cut and paste from the South African strategy. Ours are forming a baseline to that" (N2).

"There must be governance architecture to ensure that all stakeholders are forced to collaborate with each other. Culture of secrecy is out except that there is an operation. The Indian Navy wants us to collaborate but we have a problem with the availability of our platforms. Budget cuts crippled us. The change of mindset that we want to portray the SAN to the country must change. We must rebrand ourselves. We need institutional governance architecture that will bind the maritime security stakeholders to have a common operating picture. Without that, we will be disjointed. The Comprehensive Maritime Transport Policy from the Department of Transport is guidance towards a transboundary policy framework as it is very detailed. The question is if the policy documents are inclusive. Civil-military situations become very complicated. There are too many gaps. Department of Environmental Affairs are using OCIMS developed by the CSIR, you have SAMSA using satellite feeds, etc. There are so many platforms that are supposed to be used to paint a common picture but they remain disjointed and fragmented. If we as a nation fail to bridge the gap, then how are we going to collaborate with our neighbours on maritime security? Social programmes take priority over security programmes. They won't hesitate to take money from security. How do we communicate the need to have the South African Navy? We need to move away from the conventional war-fighting approach and rebrand ourselves. We are a supporting agency in the protection of the South African littoral waters. We assist other government departments such as TNPA, DAFF, and SAMSA when called upon in terms of protecting marine resources. We have publications that speak to marine protection governance and this is aligned with governmental and regional policy frameworks such as SAMSA" (N2).

"It is imperative to articulate the military programme needs in order to align it with the social programme needs that politicians require, as is the case with Operation Phakisa. The Navy needs to integrate our military-strategic objectives into that of our political leaders. Key to this is to ensure that a balance is maintained. The new five-year strategic business plan for the SANDF is coming to an end next year in March and the new plan will be for 2020-2025. If socio-economic objectives are a key performance

indicator, then that need[s] to be given in order to support the outcomes directed by parliament. The South African Navy has a constitutional obligation to protect the marine resources not only out of a legal obligation but also from a socio-economic perspective to maximise the utility of the resources available to us. Protection of marine resources is not our primary focus due to the nature of our organisation that focuses on force preparation and force deployment. I cannot speak on behalf of Fleet Command, but at Naval Headquarters it is assumed that by implication we take care of the marine environment by doing our business whilst being compliant. For the sake of international goodwill and to maintain good international relations with our SADC member states, it is in the best interest of South Africa and [the] SADC to communicate the commitment of the SAN to support all endeavours to help protect our marine resources. The support can also include free training opportunities to our neighbouring states. I see governance, interoperability, and capacity building, as mentioned by you, to be intricately linked to each other" (N3).

"We are talking maritime security and therefore I might have mentioned that we are relooking at the SADC Maritime Security Strategy as we speak. We are also busy looking at the national maritime security strategy, which is at the moment led by the Department of Transport and includes all role players of which defence is one of the pivotal roles of maritime security and in that we include the management of marine resources, the maintenance of our territorial integrity, the preservation of the maritime environment, and safety at sea. As littoral navies, we haven't given a policy framework consideration from a SADC perspective but we are currently busy with Operation COPPER, which as you know is against piracy, but we are also using it to take on members of the police on board with us to ensure we are looking at anti-smuggling and also working with the Mozambicans. In order to keep the budget, even the reduced budget, in order to keep it, we will have to prove to our politicians and our people that we are serious of what we've got using it to the best for South Africa and showing other government departments that we are there to assist them to as best possible and thereby gaining the hearts and minds of the people to support the blue economy" (N4).

"Yes, the navy mission is to conduct naval operations in defence of the Republic of Namibia, its citizens, and national interests; conduct operations other than war in support of national and sub-regional security, as well as international peace. Some of the national interest that Namibia seeks to achieve in the maritime sector is [a] safe

marine and coastal environment that provides for the wellbeing of people, a productive marine and coastal environment that enables for blue economy growth, and leads to empowerment and equality for the people" (NN1).

The interview response from NA1 to Series 3 was that the Namibian Navy is still in the process of exploring the best policy options given the available infrastructure, constrained economy, and operational readiness of its navy. NA1 observed that the MPP objectives referred to in Questions 3.1 and 3.7 are policy options that in all likelihood will be discussed with the SMC of the SADC should it form part of the SADC MSS. From an environmental point of view, the Namibian Navy does not have the naval environmental expertise that the SAN has and for that reason there are no environmental policies or naval doctrines at this point of time. The role of the SAN in the SADC, according to NA1, is important but it is observed that the SAN is increasingly experiencing similar operational, financial, and political constraints with the execution of its core mandate, namely the protection of the littoral sovereignty of the South African EEZ.

The questionnaire response from MA1 to Series 3 was that the Mozambican Navy is in a very difficult situation based on the political and socio-economic conditions that currently prevail in Mozambique. The reality is that Mozambique still does not have a fully functional navy that can patrol its coastal waters and lacks the capacity that the SAN possesses. From a political point of view, Mozambique, according to MA1, is in favour of all regional policy initiatives that will create an environment that will stimulate economic growth and political stability. The reality, however, is that the CEMZA and naval partnerships are directly dependent on secure maritime trade and navies that are fully functional and able to execute their core mandate. The Mozambican Navy, based on Question 3.7, would agree to a trilateral partnership but this would have to be negotiated and decided upon by the SADC SMC.

6.5.3   Inferences on ocean governance at the navy level

As SADC navies are all constrained to a lesser or greater extent by similar political, economic, and ecological pressures, with this theme observed during the each of the interviews conducted, the researcher found that these circumstances are both a dividing (national interests) and cohesive (regional stability) factor. The responses by N1, N2, N3, MA1, NA1, and NN1 acknowledged that navies in the SADC are under tremendous pressure and cannot comply with the legal imperatives imposed upon them. The situation in Namibia is exacerbated by the fact

that, from an MPP perspective, the Namibian Navy is guided by the Namibian Ministry of Transport and Works in terms of MPP development as the navy does not have the internal knowledge or capacity. NN1 confirmed that a Namibian Navy environmental policy is being drafted in order to be more aligned with the SADC MSS.

The present-day political and economic challenges, according to the literature study, and again observed during the interview with the Mozambican participant, present an even more severe state that the Mozambican Navy is faced with. The Mozambican participant mentioned that the Mozambican Navy is increasingly aware of the need to equip its navy and participate in all regional exercises and operations as far as possible. The recent discovery of a gas field and the willingness of foreign investors to assist Mozambique require that the Mozambican government become more regionally involved. The current conflict on its northern border at Cabo Delgado places a heightened burden on an already struggling economy and a reportedly weak defence force. The objective and repeated posing of questions, as a prerequisite of grounded theory, requires that thematic saturation is reached in terms of all available theory and that all theoretical options are explored. The current state of the Mozambican Navy is therefore both a regional opportunity and a regional obligation for the southern-most navies to find the right policy mix in order to protect the regional and national sovereignty of SADC littoral waters.

The findings thus far presented clear primary evidence that the only SADC navy capable of limited regional naval force deployment and conducting constabulary operations is the SAN, as observed in the evidence presented by the respondents and the literature. The literature studies on ICZM, MSP, IOM, and MDA in Chapters 2, 3, and 4 provided detailed documentary evidence that securing and protecting the South African littoral zone have multiple political, economic, and ecological benefits. These benefits provide incentives for SADC navies to consider the development of a transboundary MPP framework that is possible should they consider using the current regional platform of the SADC SMC. The inference is therefore made that a transboundary naval maritime security policy review towards a blue economy should not be politically forced but rather be seen as a regional opportunity as a result of the socio-political and economic welfare implications and benefits to improve the custodianship of regional marine resources. The reality, however, based on the input from N1, N2, and G1, is that both the SADC's and South Africa's land-based economical thinking, combined with archaic conventional military doctrine within the SADC, constrain the expeditious initiation of an NTMPPF approach between SADC navies under the SADC SMC.

The researcher observes that the inability of the SADC SMC to articulate and influence the maritime security (and by implication, marine protection) policy processes of SADC navies and higher-level political processes is what appears to be the lacuna in effectively improving MPP processes. The SADC SMC should therefore consider a more inclusive approach that includes cross-sectoral approach. This study repeatedly confirmed the theme that the SAN is the leading naval force in the SADC in terms of maritime security and in terms of MPP. The facilitation role in ocean governance that the SAN, from an SADC perspective, can therefore play and has been playing as an SADC member state, suggests that opportunities need to be explored for improved neo-regional governance of the littoral ocean space in support of improved maritime security within the EEZ of the SADC. This was also repeatedly cited by N1, N2, N3, N4, G1, and NN1. The literature studies furthermore reiterated the importance and support given by SADC governments to improved neo-regional interaction, although they also acknowledge their dependence on financial support for regional transboundary policy framework development.

The Namibian and Mozambican navies are in principle agreeing to improved transboundary governance engagement based on the responses of all the interviewees and as supported by the SADC MSS. The thematic pattern found in the study confirms the requirement for financial commitment for both these navies in order to fulfil their regional and national littoral protection responsibilities; thereby improving ocean governance. The responses by the Namibian and Mozambican respondents reiterated the need that the onus must therefore be on the SAN to continuously facilitate and explore regional and national opportunities that will allow for improved SADC ocean governance and ocean custodianship in terms of ensuring a secure regional littoral domain.

The question is asked whether this is possible given the responses during the interviews and the evidence found in the literature studies. The answer to this is found in the repeated media statements of the South African DOD, as well as the responses of N1, N2, N3, N4, NN1, NA1, and MA1. The mission readiness and overall operational preparedness of the SAN was again reiterated by the South African Minister of Defence in her 2021 Defence Budget Vote, as being increasingly problematic and reports both in the media and by the Institute of Security Studies, as referred to in Chapters 2, 3, and 4, confirm the rapid deterioration of the SAN. The dependence of the SADC on the SAN as the leading naval state for regional maritime security and therefore ocean governance is directly compromised by similar economic woes as experienced by Namibia and Mozambique.

The findings for ocean governance at the navy level present the following thematic patterns:

- The respondents in this study presented similar thematic patterns in terms of the increasing importance of navies that need to support the SADC in the drive towards a blue economy. The researcher noted that all the respondents indicated that they were not at all informed on what marine protection within a naval context should comprise. The SAN respondents did, however, acknowledge their knowledge on SAN environmental policies and the importance of being more cross-sectorally orientated.

- All the interviewees referred to the current trend of economies to be more land driven and not ocean driven. N1, G1, and NN1 specifically reiterated this sentiment and indicated that the future navies of the SADC and the AU will be compelled to integrate and ensure higher levels of interoperability among SADC navies in support of ocean governance and marine protection.

- The findings thus far provide specific grounded theory patterns that the SAN will have to be the lead stakeholder if the development of an NTMPPF is given consideration by the SADC SMC.

- The SAN, the Namibian Navy, and the Mozambican Navy are intricately dependent on one another within the MPP framework of the SADC SMC.

- The navies in this research require more naval research on how to improve their MDA and ocean governance policies and how to improve their commitment to the protection of national and regional marine resources.

The research on maritime security by Brits and Nel (2016) is very specific in terms of the "glaring lacuna" that the SAN as part of the SADC is facing based on lacking ocean governance and the plethora of regulatory, economic, security, social, and ecological factors that are exacerbated by the lack of exercising ocean governance at sea in cooperation with SMC member states. This military-strategic and geo-politic predicament suggests that the SAN, the Namibian Navy, and the Mozambican Navy are confronted with a multi-faceted and ever-increasing requirement to reconsider the option of changing the mandate of their navies from mainly "fighters at sea" to a more defensive state utility that suggests and speaks to "protecting at sea, and serving at sea", which is aligned with the SMC vision of promoting peace and prosperity in the SADC by means of maritime military cooperation. This is echoed by the evidence provided by Brits and Nel (2016), where it is stated that then Rear Admiral (Junior Grade) W.H.O. Teuteberg of the SAN suggested in 2011, at the Chiefs of European Navies,

that South Africa, in combination with Angola and Mozambique, must pool resources within the context of an integrated force design. It is therefore evident that transboundary agreements are a reoccurring topic discussed and reviewed among SADC navies.

The SAN and the Namibian Navy provide repeated proof (both in the literature and in the interviewees' responses) of their focus on ocean governance and slow but gradual improved compliance towards marine protection. The Mozambican Navy shows strategic alignment with political conventions and agreements but in reality lacks the infrastructure and naval capacity to execute its mandate. This dissonance is also reflected in the Stables Seas Index data for Mozambique. The intent of AIMS 2050, the ASCLME Project, the BCLME Project, and the SADC MSS is for littoral states to share best practice and it is for this reason that the deduction can be made of the need for greater involvement and support by SADC navies towards national and regional marine protection scientific organisations such as the International Ocean Institute – Southern Africa.

Based on the contemporary neo-regional challenges that the SADC experiences and the available best practice in use by international decision makers, the study found that a more neo-regional approach by navies needs to be considered if ocean governance is deemed to be important. The mandatory role of SADC navies also includes the unexplored neo-regional contribution of the navies when the review of ICZM policies and the regular review of integrated maritime security management in the SADC maritime zone take place. The observations and study of each of the three navies led the researcher to posit a more holistic and inclusive approach in favour of all the relevant stakeholders. The question is, however, how the findings are aligned with the research question and subsequent research objectives.

The primary research question centred on the research problem of the *absence of an NTMPPF among the navies of Namibia, South Africa, and Mozambique, aligned based on governance, interoperability, and training that prevent regional collaboration between these navies*. The finding is that there is indeed a reported and acknowledged lacuna in terms of an NTMPPF for the three respective navies.

The first sub-research objective set for this study was *to assess the focus of naval policy on ocean governance/compliance as provided for by national legislation and international convention and treaties*.

The evidence from the interviews, the responses from the questionnaire, and the analysed literature studies provide visible evidence that a thematic relationship exists between the needs expressed by the three SADC navies. The nature and progress made by the respective littoral states and their navies are not at the same level of progress. It is for this reason that the study first focused on international ocean governance imperatives. Specific focus was placed on policies in support of the UN (MDGs 7 and 8), AIMS 2050, Agenda 2063, the blue economy drive of the SADC, and ultimately the protection of the marine resources of Southern Africa. The study found repeated evidence from both the legal framework of the SAN and the Namibian Navy that policies are increasingly focusing on improved ocean governance.

The study could not confirm whether the Mozambican Navy was in the process of aligning its naval policies with the regional and AU strategies. From a regional SADC perspective, within the marine protection frameworks provided by the AU and SADC, and to a limited extent the SAN and the Namibian Navy, a theme was observed throughout the study that the two navies are in support of regional maritime security stability and by inference ocean governance. The literature and subsequent evidence assessed show that the Mozambican Navy is limited to only providing direct political support and to a lesser extent by means of constrained naval presence during transboundary engagements. All the respondents in this study indicated that intermittent naval cooperation (which includes naval exercises and operations within the constraints of national budgets and operationally ready naval vessels) is a national and regional maritime security imperative that needs to be explored in support of a blue economy.

Maritime security provided by navies at the regional level can, however, only be addressed if interoperability exists between littoral states. It is with this rationale that interoperability is the second factor of Research Objective 2 that needs to be used as a measure of current policy in the three navies.

The state of MPP among the three navies varies considerably, as supported and acknowledged by the respondents and the relevant literature studies, which compounds the complexity of interoperability when sharing best practice. It ranges from the relatively well-established SAN environmental policy framework, as referred to in documentary evidence, to the various cross-sectoral processes that the Namibian Navy shares with government departments such as the Namibian Ministry of Works and Transport. The Mozambican Navy is observed to be dependent and reliant on the role that the Mozambican government is playing in SADC member states when policy development is addressed. The Mozambican Navy, as supported

by proof in the literature, is still the least developed and capacitated naval force in this study. The political goodwill shown by Mozambique towards South Africa and the naval interoperability tested in conjunction with the SAN is, however, a reflection of the goodwill that exists and that the constabulary role that the SAN is executing in the Mozambique Channel is welcomed.

The researcher therefore posits that with the best practice ocean governance framework (Fig 4.8) as the baseline, the selected navies of the SADC under study are in a favourable position to review and reform their MSSs in order to improve regional ocean governance. The navies have a plethora of information at their disposal through a proposed cross-sectoral inclusive approach. This will ensure and improve the current existing ocean governance policy framework that is a naval imperative for synergy and cohesion during transboundary exercises and operations. Synergy and cohesion are also by definition a prerequisite for effective and efficient interoperability among participating naval forces during evolutions and policy reviews. This is especially true for the SADC MSS where political volatility and economic constraints require extra cohesion among political decision makers.

The responses given by the respective sub-samples were compared to the relevant literature and assessed to determine whether thematic relationships existed, and this process was repeated until no new emerging themes were forthcoming. The study found that thematic relationships exist between the three SADC navies pertaining to jurisdictional complexities, political volatility, economic woes, marine resource exploitation, and the progress made towards MPP development. The gap in naval SADC MPP that was found is that the regulatory (ocean governance) frameworks are not necessarily initiated by each of the navies, with the exclusion of the SAN, but rather by their governments. The three littoral navies do share the same strategic and regional marine protection perspective in the sense that maritime security is a naval-related strategic opportunity and regional obligation but this does not necessarily manifest in the development of actual policy frameworks. All three navies are therefore reliant on strategic policy frameworks to guide and direct their naval force employment strategies and to simultaneously ensure that they are conducted according to the prescribed international and national regulatory framework that will promote improved interoperability.

6.6   NEO-REGIONAL IMPORTANCE OF INTEROPERABILITY FOR AN MPP FRAMEWORK

The literature studies conducted in Chapters 3 and 4, as well as the discussion and analysis of the interviews conducted with the various military functionaries, reiterated the importance of the concept of interoperability during the development of transboundary neo-regional policies between navies. Through thematic triangulation conducted between the various primary and secondary sources found in articles, interviews, and policy documents, the deduction can be made that it is of paramount importance for navies to have the ability to share doctrine, apply work procedures in a joint environment, and to be able to operate jointly as an integrated force, as is the case with Operation COPPER and Exercise GOLFINHO in the SADC.

6.6.1   Questions relating to interoperability at SADC, defence, and navy levels

The following questions relate to interoperability and how important it is for the development of an NTMPPF:

- Question 1.7: Is there a need from a (inter)governmental point of view in the future within the SADC to show / be committed to / be involved in naval force projection/presence towards marine resources protection?
- Question 1.8: What have the three countries done to utilise the role of the navies in their EEZs?
- Question 2.4: Do navies play a role in the marine protection of EEZs and high seas within the SADC and, if so, what?
- Question 2.8: Is there sufficient naval similarity in terms of governance, training, maritime security, and interoperability among the three navies to promote synergy towards an MPP framework?
- Question 2.10: Would the promotion/development of marine protection within a naval context provide enough opportunities and naval partnerships for political support?

6.6.2   Responses relating to interoperability at SADC, defence, and navy levels

The responses from the following research participants amplify the sentiment that exists among naval decision makers and policy developers to the extent that it is really only the SAN, and to a lesser extent the Namibian Navy, that can relate to interoperability as their platforms allow for interoperability to be developed both in function and in doctrine.

"We are already doing good things with them but it seems, uhm, for example, we do exercises with the Namibians but we train a lot of their people. They come and train and do courses here in South Africa. But unfortunately, they seem to be leaning more and more on Brazil, and I don't know why because there is no language commonality other than a historical thing between us and them, which is unfortunate. At a high level, we have very good relationships with Namibia and their navy and their Chief of the Navy and they do our courses. They at least have four to five officers on our courses. Surprisingly enough, not combat officers but logistics officers, engineers. Combat officers all seem to go to Brazil for some season. I see India getting involved with Mozambique more and more. The biggest problem we have with Mozambique is the language issue. A lot of their people come here and they are not so good with English and all our courses are in English. We embark Mozambicans regularly on our ships, four times a year, when we do the COPPER patrols. There is Mozambicans on our ships always. They learn our doctrine, they improve their English. I don't think we as naval commanders have done enough to articulate the role of the navy to our political principals. I believe we need to get our act together and become more effective. Maybe we need to revisit the vision and mission of the SAN, maybe we need to revisit it. We need to constitutionally protect the nation's economy and that. You can use your vessel in a major utility role so when you go to sea on a frigate or a submarine, you have a mission and that becomes your priority. Okay. You can therefore prioritise their mission as a constabulary role for the next five years until you can see something escalating. If you have Inshore Patrol Vessels, you'll never be able to defend the constitutional requirement of your country. There is a conventional land force thinking happening at the moment. Abel Esterhuyse and someone else wrote a very interesting article on the strategic leadership of the SANDF. We have a responsibility to engage more with government departments such as DIRCO [Department of International Relations and Cooperation] to improve our perceived ability to be more interoperable. We must get off our backsides and engage. I was very impressed with the recent Maritime Security Conference we had. I was very encouraged with the attendance we had. The attendees don't look down at the South African Navy but see us a useful tool. It was very much Phakisa orientated. There is one thing we haven't touched on and that is Operation CORONA, borderline protection at sea with our Offshore Patrol Vessels. We do play a role there and we are expected to play a more prominent role there but we are suffering seriously from capacity problems to support CORONA. We are using

40-something-year-old strikecraft to do it and they often don't have good radars. We are compelled to use our frigates as Offshore Patrol Vessels. We need to enhance our capacity for CORONA. CORONA is another thing that assists Phakisa by providing the security that enables the maritime environment to flourish or the blue economy to flourish" (N1).

"For South Africa, we have our own maritime security strategy. When you look at the SADC strategy, it is a cut and paste from the South African strategy. Ours are forming a baseline to that. If the SADC Maritime Security Strategy changes, then the South African security strategy will also change. The SADC countries are very much willing to participate in maritime security such as Ops COPPER. I will start with Mozambique. We have Mozambique that are very willing to participate. I understand there is a Memorandum of Understanding that is signed by the two armed forces, being CJOPS [Combined Joint Operations] from the SANDF and Mozambique. Every time we go alongside, we will get the marines from the armed forces from Mozambique, we go out and we patrol. We drop them and we can even change crews due to the policy framework to train more people. We have Maritime Domain Awareness Centres all along the African coastline that assist in sharing information. You see collaboration with the Mozambicans; the Mozambicans are very much interested to work with us. They say they can't see us. Platform availability is a problem for us. Our problems in terms of interoperability are fragmented and disjointed. We need to maintain our conventional capability but be able to support social programmes in support of the national interests as well as the regional interests" (N2).

"For the sake of international goodwill and to maintain good international relations with our SADC member states, it is in the best interest of South Africa and [the] SADC to communicate the commitment of the SAN to support all endeavours to help protect our marine resources. The support can also include free training opportunities to our neighbouring states. At a more operational level of exchange, we know that during Op COPPER, the SA Navy picks up sea-riders from Mozambique. It is nothing new but it should be enhanced even more. Doctrine from an interoperability and capacity-building perspective is already in place. The fact that we can identify or together with those navies look for more active engagement or enhance the frequency of cooperation in specific focus areas that can always be done, but the basics are in place in terms of doctrine. Depending on the variables for where strategy is discussed, whether it is with

the minister, with the Military Command Council, the collateral utility of the navy from an over and above narrow combat perspective, it is always articulated. We are actively involved in career exhibitions and in various shows across the country for as long as the budget permits us" (N3).

"We are talking maritime security and therefore I might have mentioned that we are relooking at the SADC Maritime Security Strategy as we speak. We are also busy looking at the national maritime security strategy, which is at the moment led by the Department of Transport and includes all role players of which defence is one of the pivotal roles of maritime security and in that we include the management of marine resources, the maintenance of our territorial integrity, the preservation of the maritime environment, and safety at sea. As littoral navies, we haven't given a policy framework consideration from a SADC perspective but we are currently busy with Operation COPPER, which as you know is against piracy, but we are also using it to take on members of the police on board with us to ensure we are looking at anti-smuggling and also working with the Mozambicans. We should expand that to include sea fisheries to give our officers better training to work with other departments and to help enforce it in our own waters and that of SADC waters. We are defending and protecting our people but we are not selling ourselves and not informing the political masters cluster on how important the Navy is, not as a coast guard but as a navy. We are also working very closely with Op Phakisa, Initiative 5, which is protection. In the SADC Standing Maritime Committee Maritime Security Strategy and looking at interoperability, we want to have a standardised Offshore Patrol Vessel that can do patrols in our territorial waters or in our various waters that will reduce costs and allow for combined training and joint training. This will allow for patrolling our own waters and neighbouring EEZs. Going forward we talk about float, move, and fight; I think our main strategy will be on what we can keep afloat and what we can keep to defend our country as best as possible and to protect our people and our marine life" (N4).

"Training members of the DOD includes the ocean. Inter-agency and joint operations and integrated operations is a focus for Training Command. Our doctrine is landward. The leg of oceans is an important part of training. With caution and respect I know our sister countries are dependent on South Africa. As part of the SADC region it is not only the right thing to do but we are obligated to assist our sister countries. It is the South African approach that we start with the region we are part of the continent. We

are expected to play a role. We are obligated to ensure that further research into regional training needs to be investigated. I believe strongly that we want to maintain a very good and regional presence and that is anyway happening as we speak. We need to share our knowledge with the rest of the continent. Training members of the DOD need to be trained in inter-agency, inter-operational, and joint operational operations, which Training Command is actually focusing on. The future is about inter-agency, is about integrating technology in operations. The alignment of our doctrine is landward which if you follow our historical background was towards protecting natural land resources and not necessarily marine resources" (G1).

The following is the response by NN1 to Question 2.8 posed in the questionnaire, namely: *Is there sufficient naval similarity in terms of governance, training, maritime security, and interoperability among the three navies to promote synergy towards an MPP framework?*

"Yes" (NN1).

The interview conducted with NA1 presented the researcher with confirmation that, due to the limited operational capacity of the Namibian Navy, it is limited in terms of its interoperability and engagement with other regional navies.

The response from MA1 on the subject of interoperability showed correlation with his response on the third set of questions of the interview framework. MA1's opinion was that the Mozambican Navy is in a very difficult position based on the political and socio-economic conditions that currently prevail in Mozambique. The Mozambican Navy does not possess naval platforms that can be interoperable with that of the SAN or any other naval force. The Mozambican Navy, according to MA1, is, however, willing to have its naval members board SAN vessels in order to gain knowledge and experience that will improve their understanding of interoperability.

6.6.3   Inferences on interoperability at SADC, defence, and navy levels

In Questions 1.7 to 1.8 and Questions 2.4 and 2.8, the focus was on inter-defence engagement and the role of SADC navies within their EEZs. The constabulary and diplomatic duties by navies are analysed on both the individual and joint levels. The researcher provided extensive evidence in Chapters 2, 3, and 4 on the reality that exists among the navies relating to the limitations and constraints imposed by the respective governments, which provided compelling

motivation for increased interoperability. The plethora of documentary research and literature studies speaks to the strategic and regional importance of SADC navies that need to increase their interoperability in order to secure and protect their vast collective coastline.

The literature studies on interoperability supported by especially the responses by N1, N2, N3, N4, G1, C1, C2, NA1, MA1, and NN1 emphasised that the geo-strategic position of Namibia, South Africa, and Mozambique in the SADC is both a trade advantage and a regional economic burden that these littoral states are confronted with in terms of the so-called "island economy" or "blue economy" trend. The SADC MSS, in combination with the legislation passed by each of the littoral states in this study, emphasises the regional importance to safeguard and provide maritime security to the SADC coastal zone. This requires these navies to constantly revise and improve their regional naval interoperability by means of intermittent exercises and operations. The political support and geo-strategic intent mandated by the SMC as part of the ISDSC provide the impetus and organisational framework for the mentioned navies to further their regional cooperation and articulate the type of social utility that littoral states can benefit from if a secure littoral zone is maintained.

The SANDF, as part of the DOD, has integrated the National Environmental Management Act principles into the policies, plans, and programmes of the DOD. The current environmental policy promulgated by the SAN is also applicable to the DOD. Based on past combined joint operations that the SAN has had with its SADC neighbours, the willingness and commitment to increasingly protect the marine resources during operations and exercises are becoming visible. This is based on the legal emphasis that the SADC Maritime Peace Support Operations (MPSO) 1 doctrine of the ISDSC, as well as the Instructions for Officers Commanding on the Conduct of Maritime Peace Support Operations Joint Doctrine, reflects. The commitment to interoperability by the DOD and among its SADC partners is very pertinently addressed in its operational doctrine. The awareness of the Namibian and Mozambican navies and their dependence on being able to be interoperable with other navies as part of the southern-most navies of the SADC are increasingly important to them (SAN, 2019).

These findings have provided repeated thematic evidence that the SAN, as echoed by N4, as the leading naval force in the SADC, has progressed significantly in terms of its commitment to initiate the integration of interoperability and more so environmental management systems into its command structures. N3, however, expressed concern regarding a decreasing budget that he foresees to be the "Achilles heel" of the SAN in the near future, given the regional and

national maritime security obligations that rest upon the SAN and the SADC SMC respectively. The concern expressed by N2 centred around the funding and maintenance of the MDAC for the SADC as the economic situation of the SADC does not bode favourably for regional interoperability initiatives such as MDACs on the coastline of Southern Africa.

The integration and synergising of interoperability as a policy prerequisite are emphasised by the reference made by the CSIR interoperability expert to regional cooperation and heightened awareness of MDACs along the coastline of the SADC. All the respondents referred to the importance of interoperability as a pre-condition for transboundary engagements and this was also supported by the documentary evidence in the MPSO doctrine. The CSIR subject matter experts on interoperability who were respondents in this study made it very clear that no compromise can be made on interoperability when addressing regional maritime security, and this was repeatedly confirmed by both the literature studies and documentary evidence. The CSIR is jointly involved with the Directorate: Maritime Warfare on developing the interoperability doctrine of the SAN as, according to N4, the blue water capability of the SAN is of the utmost importance to the SADC. The regional naval cooperation by the SAN with Mozambique during Operation COPPER over the last decade and the subsequent conducting of Exercise GOLFINHO with Namibia reflect the South African intent with these SADC navies. It is noted that although substantial effort is made towards transboundary engagements, the effective patrolling of SADC coastlines corresponding with the existing internal and external threat is yet to take place.

The review and reform of MSSs are therefore critical if a blue economy is to be prioritised as part of the respective SADC navy policies. The prominent role of the SAN within the SMC and as a support agency of the national government is argued to be the catalyst for such reforms and neo-regional approaches to help improve best practice. Interoperability within the context of emerging SADC navies is directly dependent on the sharing of policy and naval doctrine.

The commitment to increasingly emphasise interoperability and to protect the marine resources during operations and exercises is addressed in the inclusion of interoperability legalities in SADC MPSO 1 released by the ISDSC as an instruction for Officers Commanding in the Conduct of Maritime Peace Support Operations Joint Doctrine. This was in one of the key policy documents that the CSIR interoperability expert regularly referred to. Brits and Nel (2016) allude to the fact that the funding of Operation COPPER is only provided by South Africa and not by Mozambique or Tanzania. It is in the best political and regional interest for

South Africa to not be perceived as a political agitator but rather to negotiate coastal constabulary mandates via the SMC with its littoral states and to also support transboundary neo-regional initiatives as far as possible. The responses of all the respondents, in combination with the supporting literature studies, concur with the position of the researcher that the SAN should increasingly explore and promote intermittent cross-sectoral opportunities for ocean governance scientific experts, politicians, and SADC Naval Command structures to address interoperability as a key factor for success.

The question, as part of the grounded theory approach, could be asked if there is any pragmatism in the type of interoperability postulated in this study considering the operational and financial constraints that impede joint interoperability. The answer can be found in the naval interaction over the past decade between Namibia, South Africa, and Mozambique and can be interpreted as an optimum opportunity for the SADC SMC to consider improved interoperability and a policy shift to an NTMPPF.

This concept can be both integrated and pursued within the framework of the draft SADC MSS that supports such a notion based on the following:

- Securing maritime trade in the SADC Indian Ocean, Atlantic Ocean and contiguous areas;
- Promotion of good order at sea in the SADC Indian Ocean, Atlantic Ocean and relevant contiguous areas; and
- Preventing the escalation, and rolling back, of piracy and maritime crime in the SADC Indian Ocean, Atlantic Ocean and relevant contiguous areas.

The counterargument that could prevent improved interoperability is also relevant in terms of the socio-economic and socio-political volatility that exists in most SADC countries as it requires a cohesive impetus towards a common set of approaches, such as:

- synergy towards consultation and not confrontation;
- collective reassurance and not deterrence in terms of policy review;
- agreement on transparency and not on secrecy;
- a drive towards proactive prevention and not correction; and
- agreement that, from a neo-regional perspective, interdependence and not unilateralism needs to be pursued.

Whether within the SADC SMC context or within the Indian Ocean Naval Symposium context, there seems to be consensus in terms of the strategic intent among naval chiefs, heads of maritime organisations, and/or maritime representatives of the IOR to consult and promote improved interoperability. The evidence found in the literature studies and commented upon in a supportive manner by all the respondents in the study supports the impetus towards improved interoperability and improved ocean governance through a reformed SADC MSS. An inference is made based on the current political and economic recession that many African littoral states are faced with, which is further exacerbated by the recent outbreak of the COVID-19 pandemic, that the regional SADC and national littoral state reality necessitates a concerted and well-thought-through policy review to consider how to capacitate SADC navies that experience increasingly dwindling resources and questionable infrastructure.

6.7   STUDY AREA: THE IMPORTANCE OF CAPACITY BUILDING

The factors discussed and analysed up to this point addressed the provision of sound ocean governance through a process of shared regulatory frameworks and naval doctrine. The sharing of this information by means of the concept of interoperability is, however, directly dependent on the capacity of SADC navies to develop and agree on capacity-building initiatives that will be advantageous to all stakeholders. The repeated emphasis by all the respondents on inter-agency involvement and joint operations requires an analysis of what the position of strategic naval command appointees and supporting military institutions is regarding the need for marine protection capacity building.

6.7.1   Questions relating to capacity building at SADC, defence, and navy levels

The following questions relate to capacity building and how important it is for the development of an NTMPPF:

- Question 1.5: Is it important for the three countries to ensure the protection of the marine environment within the SADC EEZ and shared governance of the high seas?
- Question 1.7: Is there a need from a (inter)governmental point of view in the future within the SADC to show / be committed to / be involved in naval force projection/presence towards marine resources protection?
- Question 2.3: Have there been any evolutions in terms of ICM / marine protection towards/among or within the three countries, and, if so, what?

- Question 2.8: Is there sufficient naval similarity in terms of governance, training, maritime security, and interoperability among the three navies to promote synergy towards an MPP framework?

- Question 3.2: What is the role of the SAN / Namibian Navy / Mozambican Navy in terms of marine protection within the South African / Namibian / Mozambican context?

- Question 3.5: Do the three navies have an environmental protection policy?

- Question 3.6: Would the promotion and the development of marine protection within a naval context provide enough opportunities and naval partnerships for political support?

- Question 4.3: Is Operation Phakisa communicated to SAN employees in terms of a blue economy?

- Question 4.4: How is the importance of oceans communicated to Namibian and Mozambican naval forces?

- Question 4.6: Is there government support for the SAN to take ownership of ocean governance?

6.7.2 Responses relating to capacity building at SADC, defence, and navy levels

The following responses were noted on the topic of transboundary marine protection capacity building among the selected SADC navies:

"And this is another thing that has fallen away in the navy in my opinion. Now they basically do the army course, which is a brilliant course for the operational-level leader in campaign planning, but you become a campaign leader for a conventional battle. From a political point of view and from a constabulary point of view, there is no regional power politics that capacity building could benefit from the introduction of marine protection as a policy option. The South African Navy can play a very specific facilitation role in the southern part of the Indian Ocean Rim and the Indian Ocean Naval Symposium framework. It is a vessel to achieve maritime security but remember, as we have come to realise, that there are no naval forces committed by SADC because they have no forces for capacity building and we are heading where we won't even have the capability with the budget cuts" (N1).

"Every time we go alongside, we will get the marines from the armed forces from Mozambique we go out and we patrol. We drop them and we can even change crews

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due to the policy framework to train more people. Our marines train them how to board vessels" (N2).

"For the sake of international goodwill and to maintain good international relations with our SADC member states, it is in the best interest of South Africa and [the] SADC to communicate the commitment of the SAN to support all endeavours to help protect our marine resources. The support can also include free training opportunities to our neighbouring states. I see governance, interoperability, and capacity building, as mentioned by you, to be intricately linked to each other. At any point in time, we always have Namibian technical ratings under training at SAS WINGFIELD. The Navy has bilateral agreements with both Mozambique and Namibia. If your budget and resource allocation reduces, it has a very negative impact on all sides" (N3).

"As littoral navies, we haven't given a policy framework consideration from a SADC perspective but we are currently busy with Operation COPPER, which as you know is against piracy, but we are also using it to take on members of the police on board with us to ensure we are looking at anti-smuggling and also working with the Mozambicans. We should expand that to include sea fisheries to give our officers better training to work with other departments and to help enforce it in our own waters and that of SADC waters. As we as the navy are experiencing budget cut on budget cut, we are talking increasingly of sustainability strategies and not focusing on technology and being the most advanced in Africa. This is all but a dream now as our capacity is seriously hampered. We have to focus on sustaining ourselves for the next couple of years, maybe a decade. We have vessels that we're not managing to maintain, we have very sophisticated frigates or Strategic Defence Packages that we cannot maintain to the level we require them to do the work we require them for. We might have to downgrade them to patrol vessels as opposed to combat vessels" (N4).

"As a Department of Defence, it is to protect the sovereignty, integrity, and territorial space of the Republic of South Africa, which includes its resources; by definition, maritime is part of those resources. The mandate of [the] Training Command is education, training, and development, [which are] essential to empower members and employees of the DOD. The future wars that we are referring to come are no more the olden days' conventional wars. Wars in the future will be triggered due to natural resources. The South African government has finally also realised that one of the most

imperative resources that has been unguarded for years remains the oceans economy. Training members of the DOD includes the ocean. Inter-agency and joint operations and integrated operations is a focus for Training Command. Our doctrine is landward. The leg of oceans is an important part of training. With caution and respect I know our sister countries are dependent on South Africa. We are obligated to ensure that further research into regional training need to be investigated. I believe strongly that we want to maintain a very good and regional presence and that is anyway happening as we speak. We need to share our collective knowledge with the rest of the continent to ensure that we all benefit from our own resources. Sharing includes academic knowledge within the region. When it comes to the oceans , as part of a very important resource, I believe as part of the government's set objectives, definitely it is within the mandate that we as the SANDF, in the Training Command particularly, that we have started to focus and bring about those modules because we understand the importance of it. The alignment of our doctrine is landward, which, if you follow our historical background, the biggest threat during those years was towards our neighbours, with a strong army presence. We are starting to revisit the landward approach versus the oceans approach, it is a reality with the importance of the most sophisticated technology we need to be aligned with. Any operations in [the] future can be led by the navy. In the joint space, all the services can play a leading role" (G1).

In response to the question, *How is the importance of ocean governance communicated to Namibian naval forces?*, NN1 stated:

"The main objective of defence is the protection of the country's territorial integrity and its national interests under the provisions of the Constitution. The degree of protection is influenced by the country's national and foreign policies. The defence policy aims to pursue the policy objectives that include protection of the marine environment to the largest extent possible" (NN1).

"As a primary user of the ocean, the navy needs dedicated and charted offshore areas in which to train and conduct exercises, to prepare for war, thwart possible terrorist activities, and prevent other threats against the country. Navy operations in the ocean are critical to maintaining operational readiness. In order to maintain proficiency and national security, there is also [a] need to ensure [the] safety and sustainability of the ocean as a vital resource of the country" (NN1).

> *"The Namibian Navy views the protection, conservation, and ecologically sustainable use of the environment as a high priority and pursues linked policies. Environmental understanding is also critical to the success of naval operations. This capability also depends upon the ability to access and rapidly analyse environmental knowledge"* (NN1).

MA1's response was a repeat of previous responses when the issue of interoperability was discussed. The need for capacity building, according to MA1, is of the highest importance as the Mozambican Navy is far behind its regional neighbours in the education and training of its naval members. The combination of interoperability and capacity building is equally important, according to MA1.

6.7.3   Inferences on capacity building at SADC, defence, and navy levels

It is important to assess whether there is a relationship between the different themes and if both theoretical and thematic saturation have been reached as part of the grounded theory approach. The responses received from N1, N2, N3, N4, G1, and NN1 reiterated the importance of the integration of a blue economy approach into the joint training curriculum of all SADC members. The in-depth literature studies in Chapters 2, 3, and 4 thus far emphasise the shared sentiment of SADC governments and their navies towards the development of a blue economy and the protection of the SADC littoral domain. G1 repeatedly voiced concern about the current land-based conventional approach that does not provide for a blue economy approach that is aligned with Operation Phakisa and AIMS 2050. G1's comments are echoed by the scientific community that supports the notion of a cross-sectoral approach. The input of both Mozambique and Namibia indicated that a thematic relationship exists with all other respondents and that a correlation is observed that suggests the importance of marine protection capacity building.

The decline in funding for the SAN over the past decade is, however, seen as a sign that political decision makers and their policy developers lack the knowledge and deeper understanding of the value of securing the littoral zone and protecting the marine resources that strengthen the economies of littoral states. The lack of capacity building is directly influenced by the absence of well-articulated policies that provide guidance on the strategic direction that needs to be taken. NN1 articulated capacity building as follows:

> *"The Namibian Navy views the protection, conservation, and ecologically sustainable use of the environment as a high priority and pursues linked policies. Environmental understanding is also critical to the success of naval operations. This capability also depends upon the ability to access and rapidly analyse environmental knowledge"* (NN1).

The reality of absent capacity building and subsequently lacking infrastructure is found in the scenario where the president of Mozambique requested the SAN and the Defence Minister of Namibia to assist in safeguarding the Mozambican marine resources.

The shortage of ocean governance subject matter experts is especially true within the AMD and more so in the navies of the SADC, as reflected upon by the SAN, Namibian Navy, and Mozambican Navy interviewees. The research repeatedly reached theoretical saturation based on the observation that a "utopian ideal" of improved maritime security is indeed shared among all the respondents but the current reality requires a much longer strategic approach to addressing the importance of marine protection capacity building. The literature study, confirmed by the responses of all interviewees, showed that inclusive, cross-sectoral, and continuous engagement of key policy developers is required for the effective management of a large ocean management area such as the SADC with its vast littoral area. The critical requirement for the SADC to plan, implement, and monitor ocean governance among its regional littoral states is directly dependent on possessing the required competent human resources and infrastructure to implement the plans. The absence of ocean governance subject matter experts in the three respective navies suggests that external organisations, ocean governance scientists, and facilitators need to be considered.

It was established that MPPs exist in the littoral states being studied and to a varying extent in the respective navies. It was also confirmed through a vigorous process of literature and documentary analysis and questioning that ocean governance, interoperability, and capacity building are indeed a policy imperative for the three navies and need to be reviewed in accordance with the concept of a blue economy. An inference is made that the status quo of MPPs in the South African, Mozambican, and Namibian navies requires continued and in-depth review towards the development of an NTMPPF.

The next study outcome is to address Research Objective 2 of the dissertation. In order to develop a suggested NTMPPF, it is necessary to acknowledge the plethora of subject matter experts who need to be co-opted and vetted as part of a SADC policy initiative.

6.8   DEVELOPING AN NTMPPF

Primary Research Objective: *To develop an NTMPPF between the South African, Namibian, and Mozambican navies.*

The analysis and discussion up to this point focused on the role that ocean governance, interoperability, and capacity building play in the current state of naval MPPs in the three navies. The possible thematic relationship and triangulation of the responses from various respondents were analysed in order to find possible gaps that need to be addressed in support of the research questions and the subsequent research objectives. The evidence in this chapter shows that the perceived shortage of vetted ocean governance subject matter experts in SADC navies needs to be bridged by sourcing agreed-upon African ocean governance facilitators.

The literature studies on SADC transboundary marine protection, as supported by all military respondents, confirm that there is a current and future requirement for a stronger nexus to be established between SADC navies, ocean governance subject matter experts, and military academia. The following response by N1 is evidence and representative of the worldview held by all respondents in terms of improving the blue economy:

> *"We do enjoy political support here for the conducting of Operation COPPER. They get twitchy when we don't go there. We are [the] SADC's navy"* (N1).

The historic lack of understanding (due to a landward doctrinal approach) among SADC policy-development role players in terms of ocean governance and the improvement of overall ocean governance amplifies the gap. The literature studies in Chapters 2, 3, and 4, supported by the comments by N1, N2, N4, NN1, and G1, emphasise the regional and national responsibility that is imposed on SADC navies such as the South African, Namibian, and Mozambican naval forces to consider how best to utilise the scientific and academic community in support of improved naval policy and doctrine, which include ensuring the protection of marine resources.

Through extrapolating the data relating to MPP processes and management systems, theoretical saturation was reached that is in support of the research objectives and addresses the AMD and SADC MPP lacunas that exist. The responses of each of the participants in this study maintained the point of view that navies should become more involved in the drive towards protecting the littoral environment on both national and regional levels. It was, however, stated that due to marine protection not being the primary objective of navies, the support and

guidance by subject matter experts are required. Ecosystem-based policy approaches such as MSP therefore require specific marine-scientific intervention in order to make provision for the unique economic needs of each sovereign state and the manner in which MSP needs to be reconfigured in order to address political, social, economic, and ecological imperatives. From a neo-regional perspective, it is important to consider Regional Marine Plans and, if need be, refine them to MBPs when addressing large ecosystems such as the BCLME and ASCLME. The current status quo of MPP frameworks among the three identified navies is, however, confirmed to be at different stages and therefore requires a more phased and holistic (cross-sectoral) approach when addressing issues such as capacity building.

The AU, and more specifically the SADC, has only in the past two decades commenced with a drive towards capacity building at continental and regional levels, and then only in terms of operational mission readiness and not environmental awareness training or heightened awareness of protecting marine resources. This was observed in the responses by N3 and G1 and further supported by the literature review in Chapters 3 and 4. The literature review in Chapters 2, 3, and 4 emphasised that political will is the key driver to addressing the level of improvement of environmental capacity building in navies. The drive towards improved capacity building will only manifest if the military will is underpinned by sustained political will. The propensity to acquire policy frameworks that focus on the protection and securing of the littoral waters is therefore increasingly becoming important in light of the economic wellbeing of artisanal fishermen on both the west and east coasts of Africa. It is critical that all stakeholders are included in the development of MPP frameworks, especially where scarce marine resources are affected or addressed. The empowerment of all stakeholders should therefore be addressed by means of various platforms such as awareness sessions, public meetings, educational courses, media releases, and easily comprehendible MPP frameworks.

The literature studies in Chapters 2, 3, and 4, as well as the responses by N1, N2, N3, G1, C1, C2, MA1, and NN1, provide clear evidence of thematic saturation, and that the reoccurring theme of political will, political intent, and organisational architecture is the deciding factor for any naval policy consideration such as ocean governance and capacity building; irrespective of the geo-political benefits. Although there are numerous marine ecological concerns and resource opportunities in the SADC, they do not influence policy decision making the same way as politics and economic woes do, even if there is proven and reported coastal and high seas degradation on the east and west coasts of the SADC. The replies by N2 and N3 from the SAN echo this situation, where it was stated that commanders are expected to align with the

political will. The inference is made that a carefully articulated approach needs to be taken when addressing politically issues that are not fully understood by policy decision makers or by policy developers.

For the purposes of developing an NTMPPF, the following criteria require careful consideration when selecting stakeholders:

- The level of stakeholder engagement (regionally, such as the SADC; internally, within a country; or cross-sectorally between different industries); and
- The inclusivity of stakeholder selection to ensure a cross-sectoral approach when analysing the distribution of human activities and impacts. This is even more important during engagement by a defence force or when engaging the navies of sovereign states.

As the nature of each respective stakeholder engagement varies, the type of MPP facilitation needs to be adjusted because of the fact that a "one-size-fits-all" approach does not necessarily address all the needs of all the relevant stakeholders. In this regard, the work done by UNESCO's Intergovernmental Oceanographic Commission and the Man and the Biosphere Programme is reported to provide a possible baseline for best practice facilitation when contemplating the planning of an ecosystem-based marine spatial management policy. Evidence of how MPP frameworks in the South African, Namibian, and Mozambican navies are integrated and managed is erratic as the three navies are at different levels of operational readiness and not perceived by their political principals as equally important due to archaic land-based economic perceptions.

The current situation among these navies is so vastly different based on the military-political and military-strategic constraints that the proposition to conduct an SEA for each navy might be plausible if synergy is achieved on how the capacity-building process will be approached. It is inevitable that vetted ocean governance subject matter experts will be approached who are to the satisfaction of stakeholders. The research conducted by the GOC, which bears a thematic relationship with this study, indicates that there are certain factors that are responsible for the decline of oceans, which include what role governments should play, as well as the role that navies could play in terms of the following:

- Ensure the drafting of a regulatory framework such as a transboundary policy framework for the sustainable and equitable management of natural resources utilisation. This will necessitate the services of a vetted facilitator to help develop a transboundary MPP framework;

- Ensure the monitoring of technological development as a utility in the marine industry and equivalent sectors such as navies. The monitoring is directly dependent on the scientific scrutiny of relevant developments; and

- Promote research and development on the high seas in terms of climate change, as well as showing due diligence in managing and protecting marine biodiversity.

The input by N1, G1, and NN1 and the evidence found in the literature provide proof that an option exists that requires acknowledgement of the archaic MPP approaches that require review and reform. The study has proven the need to include and conduct vetting of scientists that will add the much-needed marine-scientific approach to the policy review process.

The most important point of departure for the development of a policy framework, based on the literature studies in Chapters 2, 3, and 4 and confirmed by the respondents of the three navies, is to ensure that the following six elements are integrated into the review process:

- Political will;

- Financial support from all role players;

- Legal basis in terms of jurisdiction, interoperability, and ocean governance;

- Effective institutional or organisational structure;

- Logical, realistic, and practical plan; and

- Efficient secretariat to monitor and ensure proper administration.

The development of any RSP is more prone to achieving its set objectives if synergy is achieved in:

- the actual "problem statement";

- whether agreement is reached on committing to long-term objectives; and

- whether agreement and cooperation are achieved on the organisational framework to be followed.

After exhausting the most relevant resources on ICZM and MPP options and confirming the importance of an NTMPPF through engagements with the respective naval respondents, it was established that the aforementioned aspects are only possible if facilitation is conducted timeously and with all stakeholders. When asked what a possible underlying reason is for policy failure, the South African, Namibian, and Mozambican respondents all suggested that the focus by arbitrators or facilitators should be more on the problem-solving capacity and not

on the actual problem as the SMC is fully aware of the plethora of constraints that each of the navies is faced with. NN1 added another factor by stating that

> *"[f]unding, is one of the major challenges in terms of developing a marine protection policy framework; consultations with experts in the field of marine environmental issues is costly"* (NN1).

The identification of suitable facilitators and subject matter experts therefore needs to be approached in a pragmatic and regionally accepted manner in order to support the regional impetus.

The contribution of this study within the SADC context is unequivocal; specifically the importance of disseminating ocean governance information as it plays a crucial role in bridging the gap between government and science. It is postulated that the use of the Distance Learning Information Sharing Tool as a learning tool was found to be supportive in the regional development of integrated conservation and development planning frameworks. The contributions of various authors in this study support the notion that the focus of ICM policy development is on the respective organisational configurations such as the SADC that need to promote synergy among the different entities and user groups mandated to offer support and exercise authority over coastal areas and high seas resources.

The support rendered by subject matter experts in the development of a policy framework will, however, be futile if the following considerations are not integrated as part of the ICM policy framework process:

- Inter-sectoral integration;
- Intergovernmental integration;
- Spatial integration;
- Science-governance integration; and
- International integration.

This type of cross-sectoral and inter-sectoral integration requires littoral states with joining LMEs to address littoral issues by jointly undertaking strategic processes for analysing factual, scientific information on transboundary concerns, which will provide a platform for the development of a neo-regional-driven Strategic Action Programme. This phenomenon of

jointly addressing emerging neo-regional littoral issues of concern is not new to the SADC, but requires further in-depth research based on the information presented in this study.

It was found from this study that a clear thematic relationship existed between the evidence recorded from the respondents and the thematic patterns observed after analysing the literature on MPPs. All respondents were knowledgeable on the broad framework of AIMS 2050, Agenda 2063, and the blue economy concept, and suggested that there is, in their opinion, a need for political decision makers and policy developers at the political level to be informed of what role an NTMPPF could fulfil in terms of socio-economic improvement and overall maritime stability at sea. The inference is made that this will not only inform the frame of reference of policy developers but will also allow for more informed articulation by naval command appointees during engagement with political decision makers.

The discussion and analysis thus far have proven that an alignment of MPP only exists at the national level at best, but thereafter the most visibly enforced MPP is found in the SAN. The MPP of the Namibian Navy is being finalised, as was explained by NN1 in the following statement:

> *"Yes, through the Directorate of Maritime Affairs, which is part [of the] Ministry of Works and Transport. The Namibian Navy is part of the committee that deals with environmental protection at sea. As mentioned, Namibia is in the final stage of drafting the policy on marine protection. The Namibian Navy is in the final stage to establish its Maritime Domain Awareness Centre"* (NN1).

The status quo pertaining to a Mozambican MPP was confirmed in literature studies to only be observed in the regulatory framework at the national government level as the Mozambican Navy is not properly equipped or capacitated to develop an MPP framework. The inference is therefore made that the SADC SMC has the opportunity to use the concept of a blue economy and to articulate and configure a reformed maritime security framework that will be visibly aligned with the socio-economic benefits as defined in AIMS 2050 and Agenda 2063, but more specifically will provide social utility to the political decision makers who require support from their constituents.

6.8.1 The SADC Maritime Security Strategy (MSS) as the basis for policy framework development

The need and utility of operationally ready navies in the SADC were argued by the respondents to be a legal, economic, and ecological imperative, which is also reiterated by the regional and national regulatory frameworks of South Africa, Mozambique, and Namibia. The literature studies conducted in Chapters 2, 3, and 4 provided repeated scientific evidence that indicates the relationship that needs to exist between the UN, AU, and SADC in terms of securing the littoral domain of RECs such as the SADC. The antithesis was, however, also found to be true based on the same input from the same respondents in the sense that navies in the SADC are increasingly not capable of executing their national mandates due to budget constraints and lacking infrastructure. The blue economy drive by the AU and SADC in favour of improved maritime security is compromised by the reality that of the 54 African states, 38 are littoral states with weak or absent maritime patrol authorities such as navies. The regional littoral interaction between Namibia, South Africa, and Mozambique is therefore a regional imperative and for that reason the SADC SMC presents a diplomatic platform for all SADC navies to engage one another in ensuring peace and stability in the region. The maritime security challenges are both a challenge and an opportunity for the sustainable development of the respective economies, as well as for the rest of the AMD.

6.8.2 Aligning marine protection regulatory frameworks

The literature study took a wide approach to and assessment (in accordance with grounded theory) of relevant regulatory frameworks, which included the UN, AU, SADC, and all MPP-related frameworks of the three respective navies. The focus of the study was on the MPP framework of the respective SADC navies. The political intent in the SADC MSS provides clear evidence of the importance of ensuring maritime security within the SADC littoral domain. All the research participants reiterated this sentiment and voiced their commitment to be in support of a secure and protected SADC littoral zone. The gap is observed in the fact that it is only the SAN that has numerous policies relating to both maritime security and marine protection and that actually conducts constabulary patrols on the east and west coasts of the SADC.

The analysis found numerous references and literature on combined joint operations between the South African, Namibian, and Mozambican navies such as Ex COPPER, Ex GOLFHINO

and Ex OXIDE. Naval policies pertaining to marine protection exclusively are, however, not available in the Namibian and Mozambican navies. The study, however, found that a policy referred to as SADC Military Peace Support Operations (MPSO) 1: ISDSC provides guidance on how commanding officers must conduct their MPSOs. The basis for the development of an NTMPPF is posited to be found in a combination of the SADC MSS and SADC MPSO 1, which address aspects such as secure maritime trade, good governance in the littoral zone, as well as preventing and combatting maritime crime. The important factor is that a balance is required between the Atlantic Ocean and Indian Ocean in terms of marine custodianship and this poses a challenge as none of the three navies in this study are operationally ready to effectively conduct constabulary roles in their respective littoral zones. The gap still exists in the development of an NTMPPF as no visible alignment could be found other than that developed by the SAN for its own purposes.

Brits and Nel (2016) state that "South Africa's involvement rather seems to be aimed at the economic development of its oceans, in line with Operation Phakisa than at SADC's Maritime Security Strategy". The BCLME's five-year agreement reached between Namibia, South Africa, and Angola in 2014 is visibly given more political and scientific support than the consideration given to the maritime security utility found in the use of navies to secure a free maritime trading domain. The dependency of the SADC and specifically of South Africa on a secure maritime environment and the protection of its marine resources as expressed in the SADC Maritime Security Strategy and the National Environmental Management Act, supports the notion of this study that littoral states need to consider improved regional transboundary cooperation among navies. This situation is further exacerbated by the fact that South Africa as a littoral state has as yet not drafted any legal provision or form of governance to ensure that boarding, arrest, detention, or transfer of suspected transgressors captured at sea are properly planned and implemented as part of a maritime security policy framework or doctrine. A trilateral agreement exists between Tanzania, Mozambique, and South Africa (Brits & Nel, 2016) but this does not solve the legal challenges in terms of maritime security.

The geographic distance between the various SADC littoral stakeholders and the geographic divide of the Atlantic and Indian oceans emphasise the need to assess to what extent the SMC of the ISDSC is considering the improved integration of a transboundary MPP framework in support of both a blue economy and a secure maritime environment. There is documentary proof in the form of regional strategies and meetings held by the SADC SMC, within the context of AIMS 2050 and Agenda 2063 that shows commitment to a slow but gradual policy

progression towards the reform of the SADC MSS. This progression supports the focus of the study to bring MPP's and NTMPPF to fruition.

During the data analysis and while comparing scientific evidence, the thematic relationship between the respondents and the literature was observed and an inference can be made that, from a regional facilitation and cooperation point of view, the SAN is aware that specific focus needs to be placed on the long-standing and unrealised recommendation to help establish a dedicated and capable maritime policy instrument in the SADC. The question can be asked: With what and how? The SAN has its own political and economic challenges in the sense that various differences are observed among the three SADC navies. The observed and repeated theme is how contemporary global and regional trends and threats have escalated maritime security challenges as non-state role players are presenting new factors that influence maritime security in both an indirect and direct way.

The alignment of policies pertaining to maritime security and marine protection cannot be addressed without acknowledging the cross-sectoral and multi-faceted environment of member states and how governance through the intervention of policy decision makers needs to be weighed against political, economic, and natural resource considerations.

NN1, N2, and N3 proposed in similar ways the following objectives that an MPP policy framework should pursue:

- The policy must ensure that appropriate measures are put in place to prevent, reduce, combat, and control pollution caused by normal or accidental discharges or dumping by ships and aircraft.
- The policy must ensure effective application of internationally recognised rules and standards to control and manage marine pollution.
- The policy must as far as possible prohibit the importation, exploitation, circulation, and/or dumping of transboundary hazardous waste in the SADC littoral area.

The Namibian Navy, in conjunction with the SAN, is a custodian of Navigation Area VII (see Figure 6.2) as per the stipulations of the IMO. The response by NN1 reiterated this:

> *"As per IMO, South Africa is the custodian of NAVAREA VII which Namibia is part of. SA being responsible of NAVAREA VII, the SAN automatically plays a major role in terms of marine protection within Namibia and Mozambique … The Namibian Navy is in the final stage to establish its Maritime Domain Awareness Centre"* (NN1).

For this reason, the SAN, with the support of the Namibian and Mozambican navies, plays a significant role in the protection of this area. This area not only serves as mandate to patrol the area more effectively, but also support the study towards more collective regional ownership and protection of this SADC maritime domain. This study highlights the important role that an MDAC will fulfil in the SADC and that will allow for improved ocean governance, improved interoperability, and capacity building should the MDAC be utilised to its full potential.

The analysis of data pertaining to criminality at sea will not only provide SADC littoral states with the ability to improve their jurisdictional capacity at sea but also to jointly exercise their sovereign mandates to secure safe passage for all maritime users. The socio-economic utility that the SADC and its members states will benefit from is also the fact that MDACs will serve as a platform to improve the seminal contribution of marine scientists to the AIMS 2050 and Agenda 2063 strategic objectives. This would be possible through the proposed cross-sectoral approach posited in this study and by utilising ICZM, RSPs, MBPs, and SEAs in order to improve the sustainable protection of SADC marine resources. The littoral reality around the coastline of the SADC presents a bleak situation more specifically within the EEZ of Mozambique based on the literature studies and the reported military conflict in the Cabo Delgado District where extremist militia actions are disrupting ocean based economic sectors. The Stables Seas Index as previously discussed, highlights the poor governance in Mozambique and this exacerbates the protection of the collective SADC EEZ.

Figure 6.2: South African Navigation Area VII
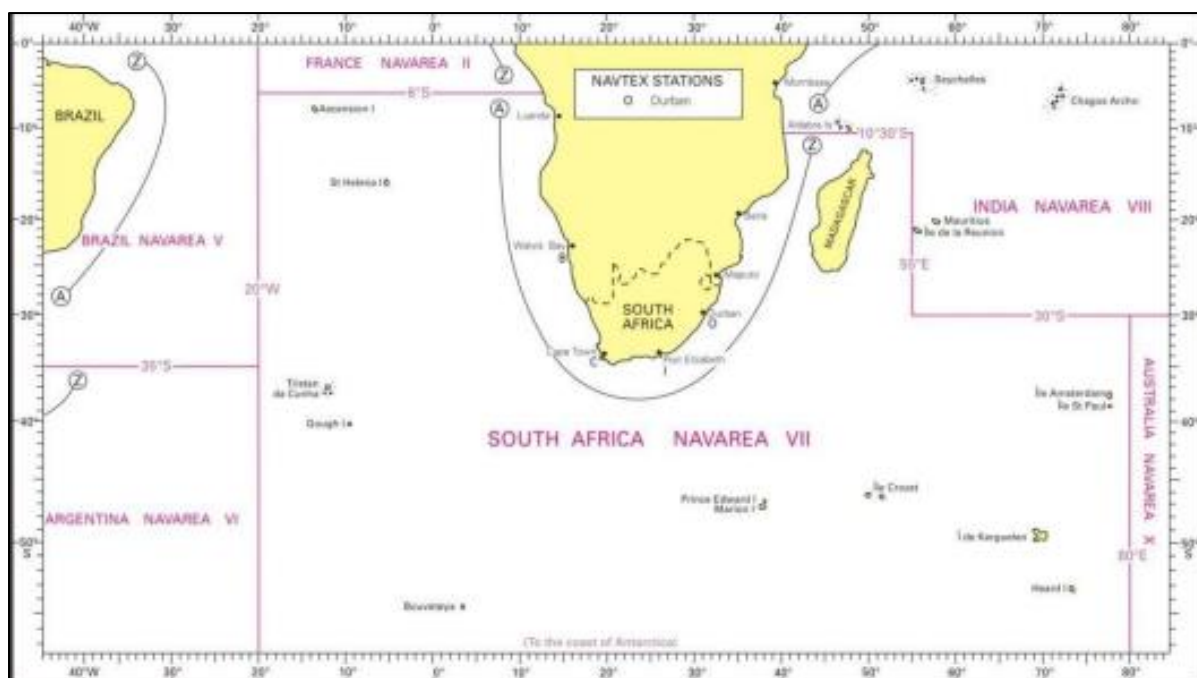
Source: International Hydrographic Office (2019)

6.8.3   Factors that limit the development of an NTMPPF

This research has provided substantial proof that political consensus and political stability among political parties are the cornerstone for improved governance. This was echoed by both the Mozambican and Namibian participants, as well as N1. Political consensus and support are, however, a panacea for all the littoral states in this study; given the impact of the COVID-19 pandemic. The one littoral state in the SADC that is the most affected in this study is Mozambique as it is increasingly under threat by extremist militia.

The research by Muchemwa and Harris (2019) discussed in Chapter 4 presented the facts pertaining to attempts to disrupt all efforts towards reconciliation in Mozambique. The ruling Mozambican government, with the support of the SADC, is compelled to consider negotiations with RENAMO if a political process is to be considered (Muchemwa & Harris, 2019).

The political situation in Mozambique and conflict between warring political parties over recent years have not had a favourable effect on the MDF and more specifically the Mozambican Navy. The literature study and related information analysed during this study showed a distinct pattern of how the Mozambican Navy follows ocean governance policy progress and SADC policies such as the ASCLME and SADC SMC MSS. Literature studies confirmed by the Mozambican respondent show that the Mozambican Navy lacks the financial and naval platforms to effectively contribute to a blue economy in the SADC. Politically and regionally, it carefully participates in SADC deliberations without having to expose and place unnecessary pressure on poor governance structures. The historic and current lacking naval infrastructure in Mozambique, the presence and conflict of extremist militia in its northern province, continued failing and corrupt governance frameworks, as well as a poor judicial system all complicate the establishment of sound maritime governance. The littoral area, with its recently discovered gas fields, as well as the ASCLME that is situated in Mozambique's EEZ, may represent the incentives that could be the catalyst for improved ocean governance.

The inference is made that the SADC navies will have to better articulate their neo-regional roles to their political principals in order to motivate how the navies can be utilised in support of the socio-economic upliftment and blue economy of the respective littoral states.

6.9   RESEARCH ANALYSIS

The successful analysis of the findings between the collected theory and the research data in this study is directly dependent on adhering to the research principles of grounded theory. The use of grounded theory guided the research towards exploring all possible theories, required all possible questions to be asked, and required an objective approach to prevent bias during the research. The primary and secondary sources analysed showed that the more inclusive and representative marine protection regional agreements and policy frameworks are, the higher the probability that they will receive the required political, socio-economic, and scientific support and informed input. The inclusivity factor during multi-party maritime agreements requires serious consideration as it promotes regional maritime stability and allows for increased political, economic, and ecological stability.

The literature on MPP development, as discussed in Chapters 2, 3, and 4 and as referred to by N2 and N3, states that policy making often occurs in circumstances where constrained entities need to match policy goals with policy means. The point of contention, however, is the three littoral states in this study that have different socio-economic and socio-political contexts and for that reason the necessity to review policies is interpreted and approached differently. The common denominator, however, is the fact that these three countries are directly affected by the maritime stability and security of their EEZs from a political, economic, and ecological perspective. For this reason, the effective ocean governance of their littoral coastlines is both a national and regional imperative.

Effective and efficient ocean governance by each littoral state within the frameworks of ICZM, AIMS 2050, and Agenda 2063 provides the parameters within which each government sector, as well as private industry, as part of a cross-sectoral initiative, can add value to the economic prosperity of the sovereign state and the region. This impetus, however, is constrained by overlapping littoral jurisdiction and for that reason it is a legal necessity to explore the possibility of an NTMPPF among the three navies of South Africa, Namibia, and Mozambique.

As South Africa is perceived and accepted as the leading naval force in the SADC, it is important to note that South Africa has no clear "opposite" states, but a maritime boundary delimits it from its coastal neighbours, namely Namibia and Mozambique. The current state of affairs in terms of military foreign defence policy is supported by the fact that Namibia places a great deal of emphasis on peaceful co-existence and cooperation such as past operations and naval exercises. The on-going cooperation that exists between the SAN and the Mozambican

Navy is also indicative of the neo-regional cooperation that supports further transboundary marine protection agreements. The gradual progression towards improved interoperability that has taken place over the past decade between the three navies of South Africa, Namibia, and Mozambique can be inferred as a possible policy basis for improved regional interoperability in the near future (Brits & Nel, 2016).

From a neo-regional perspective, the researcher finds it implausible to conceive that navies will not have a neo-regional MSS that promotes the protection and securing of all maritime activities within their respective but also collective littoral waters. This sentiment was echoed by all respondents in this study. The literature referred to in Chapters 2 and 3 proves that there is valid evidence that exists on a global level to support the notion of countries supporting one another in the protection of their natural marine resources. The cooperation that exists between environmental authorities within the TEMM projects is further strengthened by the integration of the local governments, researchers, academia, and youth from the three countries. This is proof that governments can converge towards the same policy mix. In the AMD, the compilation of the five key ASF policy documents ensured that doctrine, training and evaluation, logistics, command, control, communications and information systems, and standard operating procedures were addressed. What needs to be observed is the fact that all these policy documents were adopted by the ACDS and the AMDS. The researcher therefore finds that the sharing of ocean governance information, sharing of best practice, and giving consideration to cross-sectoral engagement will require processes such as MCDAs and SEAs to be considered by the SADC when developing an MPP framework.

The SADC interventions in the form of the SADC MSS and AIMS 2050 supports the possible development of an NTMPPF between the three navies identified in this research. It is, however, noted that, from an SADC perspective, there are numerous challenges and organisational constraints that each of the three littoral states with their respective navies is faced with. This requires the three littoral states with their respective government stakeholders, decision makers, and policy developers to be pragmatic and realistic should an NTMPPF be considered within the SADC naval context.

It has been established that sufficient capacity in terms of MPP development is lacking within the SADC SMC as it is part of the new drive towards a blue economy. It can be argued that the impact of a revised SADC marine policy that focuses on naval marine protection governance, interoperability, and integrated capacity building will increasingly create improved impetus for

naval marine protection custodianship. Conversely, the argument can be made that the current state of affairs among the littoral states in this study, based on volatile political and economic disparity, does not favour increased political support for naval involvement in a blue economy. Politically, the support that needs to be given to SADC navies as part of a blue economy is found to be lacking due to various historical and contemporary challenges. This, however, does not remove the regional onus that rests on the SAN as a member of the SMC and ISDSC to explore and facilitate the formulation and alignment of its own NTMPPF with that of the neighbouring Namibian and Mozambican littoral navies.

This increasing regional onus and opportunity presented to the SAN, as the lead naval entity within the context of the SMC, allow for expedited facilitation of reviewing current SADC naval MPPs where custodianship is executed through both constabulary and diplomatic roles. The facilitation of MPPs in terms of naval doctrine, however, suggests, and could be argued requires, guidance and input from subject matter experts who specialise in oceans governance and marine protection. A starting point is to consider the international drive towards SDG 14 as it speaks to the conservation and sustainable use of oceans, seas, and marine resources in support of sustainable development. The three respective navies, based on AIMS 2050 and Agenda 2063, therefore have a compelling MPP framework review to pursue in terms of acting as utilities in support of AU and SADC maritime security that also supports the social programmes of their respective littoral states and the SADC region.

It is, however, the complexity of combining the naval interests of three totally different states and merging them together that requires careful consideration in terms of the "right policy mix". The archaic concept of "fighting at sea" in terms of ocean protection while deployed at sea presents the greatest dichotomy as it requires a total review of the way that marine protection is integrated into the naval doctrine of all three navies. The adaptive management cycle presented in this research, however, allows for continuous review of the policy process and supports the notion of continuous improvement of ocean governance within the AIMS 2050 and Agenda 2063 frameworks.

Thematic saturation was observed in Chapters 3 and 4, based on the literature studies conducted, as well as in the documentary review of the SADC MSS that presents the current status quo where the three littoral states in this study share a historic land-focused economy. This type of economy is gradually being compared against the current and future benefits of a blue economy. A combination of the adaptive management cycle and the ecosystem-based

approach suggests that regional blue economy outcomes would include more effective governance structures that are aligned, an improved scientific maritime security database for a participative decision-making process (interoperability), and an improved capacity-building programme that allows for an optimal ecosystem-based management system that could support a policy framework that focuses on marine protection among the three navies. The value in MCDAs as utilities, together with participatory processes such as ICZM, is advocated worldwide as the preferred approach and for that reason is deemed as an option for SADC MPP integration into the SADC MSS. The challenge, as supported by N1, might be the communication and transfer of information to stakeholders of different languages, as well as stakeholders who do not share similar scientific backgrounds or organisational architecture. The mediation and arbitration that these differences might require need to be properly assessed as they might be the cornerstone for effective and efficient policy development and ocean governance.

Based on the different challenges between the three countries, it is expected that the three navies would have a distinct requirement for extensive stakeholder engagement before any type of consensus can be reached in terms of overlapping oceans jurisdiction. It is for this reason that the three littoral navies could consider simultaneously conducting individual SEAs for analysis and upon completion, to clarify complex and generic maritime security issues that include environmental issues such as regional and national marine protection. This process will identify and communicate the potential marine threats and consequences for higher-order planning and policy decisions that decision makers need to take heed of.

The literature studies in Chapters 2, 3, and 4, supported by the responses from N1, N2, N3, and NN1, confirm that cognisance taken by marine protection policy makers in terms of their respective regional and national policy concerns does not necessarily imply that they are mutually inclusive in their respective approaches. It is for this reason that a cross-sectoral and regional approach is a policy imperative if sustainable ocean governance and good marine custodianship are valued by all stakeholders involved. The practicality of such an NTMPPF development process is, however, influenced by the time spent by the stakeholders and may be compromised if it is prolonged unnecessarily. The development or review of regional MPPs from a historic point of view has proven to be more complex given the geo-political, socio-economic, and marine resource implications that it holds for developing littoral states in particular.

Evidence found in the literature studies in Chapters 3 and 4 showed that the ASCLME signatory countries are also signatories to most of the relevant international conventions, and are all members of the Nairobi Convention. Among the ASCLME member states, evidence collected in this study indicates the prevalence of governance inconsistencies within public and private regulatory frameworks. These inconsistencies consist of reoccurring generic "gaps" such as "overlapping jurisdictions", lack of cross-sectoral communication, and the failure to implement the provisions of international conventions after ratification, which are further exacerbated by inadequate funding and lack of capacity to implement. A neo-regional approach to transboundary marine agreements is also complicated by the fact that maritime borders are still seen as a contentious issue as they have not been agreed upon, as is the case with the Kudu Gas Field between South Africa and Namibia. The importance of securing and maintaining political will and synergy between littoral states is a policy imperative when considering transboundary marine agreements.

The internationally agreed-upon strategy to be more sustainable in the development of the blue economy is found in the 17 SDGs followed by governments, academic institutions, corporate businesses, and non-governmental organisations. None of the respondents were able to suggest a course of action in the development of an NTMPPF, but alluded to the fact that AIMS 2050 and the SADC MSS require consideration. The goals found in the 17 SDGs represent the mutually inclusive development aspirations and priorities for 2030 on a global scale. The SDG relevant to this study is SDG 14, which entails the conservation and sustainable utilisation of all oceans, seas, and other marine resources for sustainable development.

The goals set for SDG 14 by 2025 include, but are not limited to, the following:

- The prevention and significant reduction of all forms of marine pollution, especially from land-based activities;
- The sustainable management and protection of all marine and coastal ecosystems in order to prevent significant adverse impacts;
- The minimisation of all impacts that result in the acidification of the oceans, including improved scientific cooperation on a regional and international level;
- Striving to conserve at least 10% of coastal and marine areas;
- Improving all regulatory frameworks and systems in the fishing industry; and
- Assisting Small Island Developing States and Least Developed Countries in increasing their economic benefits from the sustainable use of marine resources.

The planned achievement and further improvement of SDG 14 are, however, a medium- to long-term strategy that will vary from one country to another. For this reason, it is important to consider different solutions that may serve to be effective for the possible achievement of the SDGs set by each respective country, and more specifically SDG 14 for littoral states such as Namibia, South Africa, and Mozambique for the purposes of this research.

It was observed that no previous studies exist on the subject matter of this study and the inference is made that this is the first study of its kind from a naval perspective in the SADC.

For that reason, the study identified key considerations that are supportive of the development of an NTMPPF, namely:

- clearly defined objectives in AIMS 2050;
- the intent to consider the impact of a CEMZA in the NTMPPF;
- the shared regulatory framework found in the Abidjan and Djibouti conventions, as well as AIMS 2050;
- the use of the SADC MSS to include an enclosure to address an NTMPPF;
- the political intent expressed by the AMDS and the ACDS to address maritime security and marine protection in the SADC MSS;
- the vast amount of resources and research invested in the ASCLME and BCLME on the western and eastern coastal borders of the SADC;
- the political support behind Operation Phakisa in the South African government, specifically Outcome 10;
- the utility of making use of the GOC to promote and possibly create sufficient continuity for an NTMPPF to also affect other RECs in Africa;
- existing maritime boundaries in the WIO that have already been agreed upon;
- the Lomé Charter that supports maritime security, safety, and development in Africa;
- the reoccurring theme of ecological, economic, and social problems that unite the three littoral states in this study and therefore also their navies; and
- the establishment of an MDAC, as well as the appointment of an MSS representative at SADC headquarters.

This chapter reached theoretical and thematic saturation when no new emerging theories or patterns emerged and a conclusion was therefore reached as all the observations produced the same reoccurring theories and repeated patterns. It is for this reason that the researcher can

argue in favour of an NTMPPF that is similarly aligned with the blue economy policy model as depicted in Figure 4.7.

6.10   RECOMMENDATIONS: NTMPPF

The following policy framework is proposed for the identified navies. To develop an SADC naval NTMPPF, the following steps are proposed, as shown in Figure 6.3.

The proposed steps indicated in Figure 6.3 are based on the guidance provided by UNECA (2016) and were adapted to ensure that an inclusive cross-sectoral, multi-stakeholder approach is taken in the policy-development process, with specific emphasis on political and financial support and ownership. The Blue Economy Policy Handbook from UNECA provides guidance how the policy development process needs to be approached. The focus is on inclusivity, planned execution and constant communication between all stakeholders.

The proposed policy framework that will improve neo-regional transboundary marine protection among the Namibian, South African, and Mozambican navies is indicated in Figure 6.4.

Figure 6.3: Proposed steps for an NTMPPF
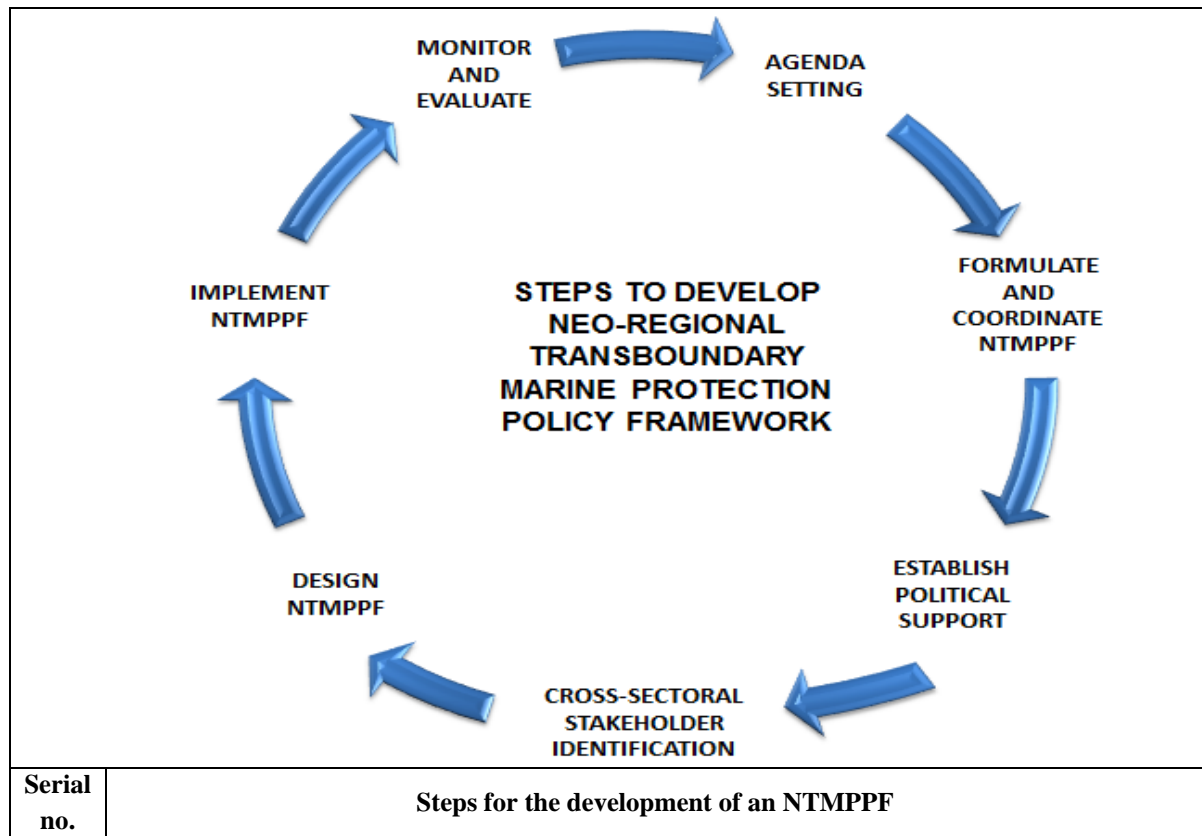
Serial no.	Steps for the development of an NTMPPF

1	Agenda setting, awareness, and sensitisation between the three navies based on the respective maritime security policy frameworks, naval doctrine, and inherent characteristics that need to be aligned within the SADC parameters.
2	Coordination in formulating the NTMPPF, considering the respective variables.
3	Building national ownership of the NTMPPF formulation process.
4	The MSS sector is the identified sector.
5	Designing the NTMPPF.
6	Implementation of the NTMPPF over a period of time as agreed upon by the three navies.
7	Monitoring and evaluation by the three navies.

Source: Adapted from UNECA (2016)

From the onset of this study, the focus was on using ocean governance, interoperability, and capacity building as the key factors to determine the status quo of MPP in the three identified navies and to develop an NTMPPF. The research found that organisational architecture and committed funding at regional political level are important factors that determine the successful development of an NTMPPF.

The political and economic will of the SADC is of regional and strategic importance for the review of the current SADC MSS/objectives should an NTMPPF be considered for the value it presents across all sectors and within the CEMZA framework. Not only will this transboundary policy framework allow renewed agenda setting (see Figures 6.3 and 6.4), engagement, and possible synergy on maritime jurisdictional matters, it will also promote a multi-stakeholder, cross-sectoral, and inclusive approach that will create impetus for regulatory agreement in terms of maritime security and marine protection. The research has found specific marine protection projects and ocean governance systems such as the IOM, ASCLME, BCLME, and ICZM that could be integrated into the policy frameworks of the SADC and that of the MSS of the SADC.

Figure 6.4: Proposed SADC naval NTMPPF
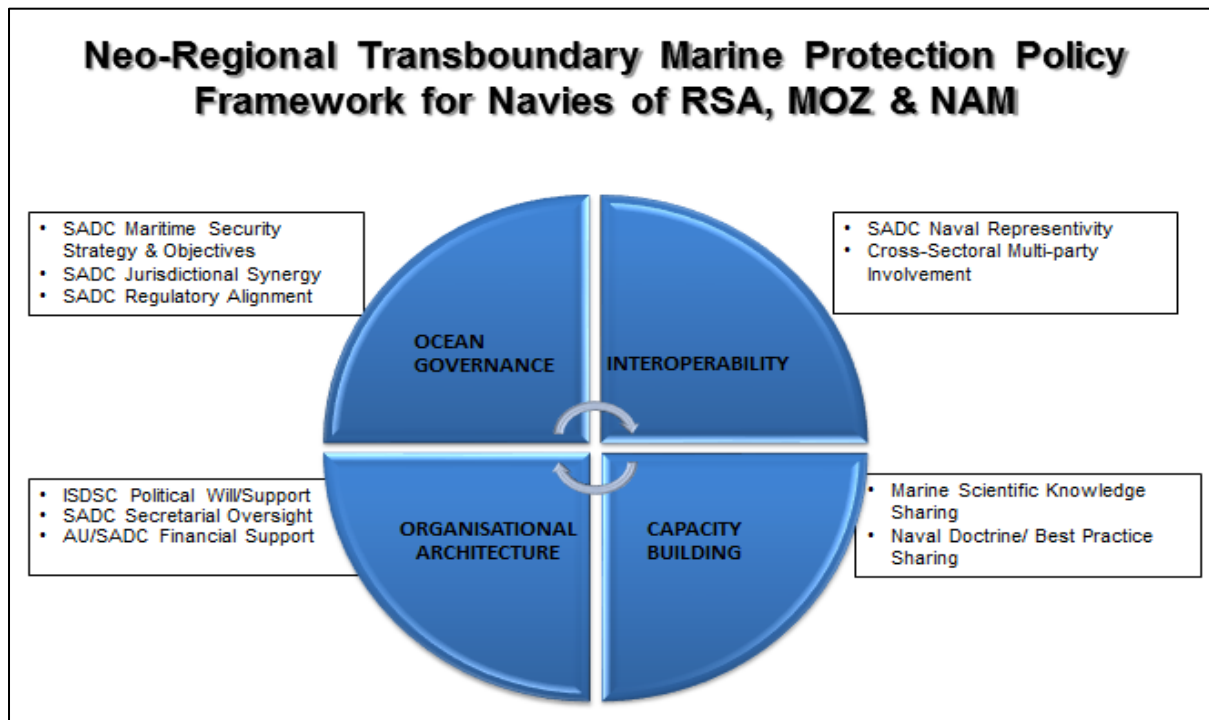
Source: Author's proposed NTMPPF (2020)

The overarching factor of ocean governance encompasses all the above mentioned aspects as it creates maritime security and stability. Ocean governance has also proven to be important to create an environment that is conducive for policy development and implementation.

The navies in this study will, however, not be successful as neighbouring littoral states if interoperability does not exist among them. This lacuna exists especially in the poor Mozambican navy but can be bridged with the SMC of the ISDSC of SADC.

The SMC of the ISDSC within the SADC is instrumental when the interoperability of navies is considered. The research has confirmed that the SAN is the current leading stakeholder and is expected to provide the impetus that will promote regional maritime security in the EEZs of the SADC maritime domain. The challenge, however, lies in the fact that a multi-party, cross-sectoral, and inclusive approach needs to be followed over a given period of time in order to fill the lacuna where marine protection scientists, government departments, politicians, and navies need to find a common agreement on what is required to develop an NTMPPF. The needs of all the stakeholders will elucidate the capacity building that is required at the various levels in governments, defence forces, and their navies.

The findings of this study have repeatedly emphasised that capacity building is the cornerstone of a developing economy and for the purposes of this research, for SADC navies specifically. Sharing knowledge and best practice among SADC naval forces has allowed for naval doctrine to be developed for African navies by African navies. The proposed NTMPPF is, however, a topic that will have to be facilitated by subject matter experts who do not necessarily have in-depth knowledge of the capacity-building needs of each navy in this study. This will require navies, government departments, and marine scientists to find the "right policy mix" without compromising the MSS or the objectives of the SADC SMC. The design of the NTMPPF will have to consider AIMS 2050, Agenda 2063, The Stable Seas Index, the UNECA Blue Economy Policy Handbook and the SADC SMC Maritime Security Strategy that precedes this proposal. The design process will have to be timeous as not to lose the impetus and political will that allowed for funding and resources to be made available. The design of the NTMPPF is expected to be phased and staggered base on the different stages of stakeholder identification, planning, implementation, monitoring, and review.

The stages are, however, directly dependent on carefully planned and considered organisational architecture that the SADC SMC will determine based on the guidance received from their political principals. Political support and involvement are central to the successful development of the NTMPPF as they require SADC SMC secretarial oversight to ensure that the multi-party stakeholder process is managed effectively and efficiently and in a transparent manner.

The proposed development of an NTMPPF (see Figures 6.3 and 6.4) is possible based on the fact that the SADC SMC is fully committed to a blue economy and to improving the littoral maritime security and protection of marine resources of all member states. The effective management and implementation of ocean governance are dependent on the following key performance areas:

- The SADC SMC MSS and objectives will provide the framework for the timeous achievement of strategic outcomes. This will be based on the facilitation provided by SADC SMC-vetted marine protection subject matter experts.
- SADC SMC jurisdictional synergy needs to be established and documented based on the maritime spatial considerations that maritime borders present when addressing irregular and criminal activities at sea.
- SADC SMC regulatory alignment needs to be addressed by the relevant stakeholders in order to provide a regulatory framework and mandate for the NTMPPF to be based upon.

The effective management and implementation of organisational architecture will be dependent on the involvement and ownership taken by the SADC SMC. The architecture will be dependent on the following key performance areas:

- ISDSC SMC political will and support;
- SADC SMC secretarial oversight; and
- AU/SADC financial support.

The proposed development of an NTMPPF, as indicated in Figures 6.3 and 6.4, requires a more ocean-focused orientation and not the archaic land-based focus. The global trend necessitates the SADC SMC to consider how to use navies not as aggressors but as defenders of the oceans in support of the economic welfare of countries and regions. The integration of a blue economy drive (such as CEMZA, AIMS 2050, and Operation Phakisa) among navies and their political principals will assist in articulating the need for navies to serve at sea in support of a secure and stable regional and national economy. The ocean leg of Phakisa is suggested to provide a policy baseline for Namibia and Mozambique to connect to or use as an extension. From an emerging navy point of view, it is important to take cognisance of the limitation that sea blindness towards blue economy policies might have on naval NTMPPF development. Maritime security sector reform will therefore have to be considered in support of the security programme acting as a utility in support of the social programmes within the governmental socio-political and socio-economical frameworks of different littoral states. The security programmes, more so of the navies of African littoral states, are therefore at a crossroads to realign themselves to ensure that the focus is on securing and protecting the economic upliftment and sustainable maintenance of these economies as part of AIMS 2050 and Agenda 2063.

The repercussions for this NTMPPF not to be considered and accepted would be that it would be to the detriment of all stakeholders, both directly and indirectly. This implies risks at SADC level, national defence level within each country in this study and the respective navy. The strategic risks would include the following:

- The reluctance of international stakeholders to invest and support SADC navies studied in this dissertation that will compromise their operational readiness both nationally and regionally to maintain a naval presence in the SADC littoral maritime domain in support of maritime security and marine protection.

- Preventing the available national and regional capacity building agencies to improve shared naval doctrine on ocean governance and interoperability.

- The inability of the SADC navies studied in this dissertation to support the SADC and AU in the AIMS 2050 and Agenda 2063 strategic objectives. This would also result in the three navies not to being able to support their respective governments towards a blue economy.

This research used grounded theory in order to ensure that scepticism and a critical approach would allow the researcher to explore all options until a saturation point was reached. The level of scepticism proved to be useful as the question arose why the respondents in the study all shared the same opinion on why blue economy policy considerations and more specifically the protection of marine resources are increasingly important. It is posited that a plethora of reasons could answer the question but that political pressure and constrained military environments compel the respondents to adhere to weak guidance provided by higher command.

The navies of Namibia and Mozambique, although relatively recently established, are in the process of naval force preparation and can therefore not compare to the more established navy of South Africa. It is for this reason that policies relating to marine protection within the Namibian and the Mozambican navies are not as integrated as those of the SAN and more declaratory, than operational. The need for capacity building and knowledge sharing is once again part of the pattern observed throughout the study. The navies themselves, however, are not sufficiently capacitated to facilitate the integration of ICZM, MSP, MDA, and SEAs into the current policy frameworks of the respective navies. The notion that an integrated approach with the inclusion of various subject matter experts, including marine scientists, should be considered for the sake of regional synergy thus supports the research objectives and underlines the gap in the research questions. This will not only allow for improved ocean governance policy development in the respective navies, but will also address the three main factors of this study, namely ocean governance, interoperability, and capacity building, which are also supported by the AU and SADC.

The benefits of the proposed NTMPPF outweigh the perceived restrictions and challenges that the three navies in this study experience. The political infrastructure, such as the SADC SMC, allows this research to be discussed and considered without excessive political negotiations and costs.

The primary research question of this study revolved around the regional and national importance of having to develop an SADC NTMPPF for the navies of South Africa, Namibia, and Mozambique.

From a research point of view, and aligned with the research objectives, the evidence indicates that an MPP framework is possible if the following prerequisites are met:

- All three navies must unilaterally agree that government stakeholders, scientists, and naval command cadre participate in the development of a neo-regional MPP framework.
- Political (SADC SMC) representation and support by the three littoral states need to form part of the policy process.
- The policy-development process needs to be conducted according to agreed-upon organisational architecture based on structured and time-based milestones and an output-driven approach.

The best practice policy options in terms of management approaches point to a combination of transboundary MPP options and do not favour a "one-size-fits-all" approach. The seven-step blue economy process could be considered as the broad framework in combination with the ecosystem-based management approach. It is posited that the organisational, legal, political, and ecological imperatives need to be considered and agreed upon by the SADC navies before the mutually inclusive collective of policy developers and policy makers be requested to assist in the development of the proposed transboundary MPP framework.

The development of such an NTMPPF is, however, acutely dependent on regional cooperation between political decision makers, policy advisors, marine scientists, the command structures of the three navies, and the subject matter experts per country appointed for the process.

6.11   CONCLUSION

The scientific evidence in this research study supports the notion that navies need to be more social-utility orientated than purely security focused as this "new thinking" also supports the notion of a multi-disciplinary and multi-functional security force in support of their nations and their region (SADC). The outcome-orientated thinking that is postulated in this research is based on the integration of all the facets of policy development, policy integration, and policy implementation.

The repercussion in terms of cost is immeasurable as the global need for food is exacerbated by competition for resources in and under the oceans. The proposed NTMPPF provides proof that all littoral stakeholders need to share in an NTMPPF in order to protect the respective national natural marine resources. This holds true especially in the case of fishing within the African context where fishing is an important source of both protein and income to Africans. From an employment point of view, the fishing industry provides employment and a source of income to an estimated 10 million people.

This study has proven that African countries are the most susceptible to exploitation and plundering of marine resources due to the fact that they lack the ability to effectively and continuously patrol their own EEZs due to their weak emerging economies and insufficient maritime capabilities. The financial contribution to GDP by commercial fishing is significant in Namibia and Mozambique and to a lesser extent in South Africa. From a blue economy perspective and considering the fact that the navies in this study are all part of emerging littoral states, any ignorance shown to the opportunities of an NTMPPF would be short sighted and not be aligned with AIMS 2050. It therefore stands to reason that the aforementioned littoral states are more dependent on a secure and stable EEZ and require a maritime force to protect the sovereign marine resources. The current regional inclination towards a land-based economy and lagging impetus towards an oceans economy strongly compel SADC navies to explore an NTMPPF that could strengthen their ability to support one another in constabulary roles and to support their national lead agencies in protecting littoral coastlines and oceans within their respective EEZs.

CHAPTER 7:
SUMMARY AND CONCLUSION

7.1 CONCLUSION

The preceding chapter set out to analyse the data and to synthesise the data with both the literature review and the theoretical framework. This was done to summarise the research findings and to propose a policy framework as set out in the research objectives. The finalisation of scientific research requires confirmation and verification of whether the research objectives for the study were achieved. This concluding chapter therefore uses the research aim and objectives as the reference framework to determine if the research results were successfully achieved. This is followed by the next step of the research process, namely drawing conclusions and making recommendations to allow the study to contribute to the existing body of knowledge.

7.2 MAIN FINDINGS AND OBSERVATIONS OF THE RESEARCH

The main findings and observations are discussed in the following three parts:

- The first part intends to provide the reader with an informed synopsis of the main findings based on reoccurring themes that originate from the literature and documentary study, as well as from the input from the respective sub-sample groups.
- The second part combines the collected evidence with the theoretical knowledge and assesses the relevance thereof to the research problem and research objectives. The gaps identified and supported by the research then provide the MPP framework for future theoretical and scientific contributions.
- The chapter concludes with the limitations relevant to the research. Specific focus is placed on contemporary and future obligations, opportunities, and challenges that were highlighted by this dissertation.

7.3 AIM OF THE STUDY

The aim of this research study was to develop an NTMPPF between the navies of South Africa, Namibia, and Mozambique. After reviewing the various related literature, policies, and positions of stakeholders, the aim was achieved by drafting an NTMPPF that provides a policy

framework for the three respective navies. In order to achieve the research aim, the following guiding objectives were set:

7.4 RESEARCH OBJECTIVES

The main research objective was to develop an NTMPPF between the South African, Namibian, and Mozambican navies. To achieve the primary objective, it was important to assess the current status quo of MPP frameworks in the Namibian, South African, and Mozambican navies as part of the secondary objectives. Two sub-research objectives aimed at reaching the main research objective were set.

Secondary Research Objective: *To assess the status quo of MPP within the Namibian, South African, and Mozambican navies.*

The study successfully achieved the secondary research objective. It was found that the MPP framework of the SAN is promulgated by and integrated into the command-and-control system of the SAN. The execution thereof both within the national and regional context is, however, constrained by financial and political imperatives. The Namibian Navy relies on the Namibian Ministry of Works and Transport for the drafting and review of an MPP but it does not have a marine policy framework that is drafted exclusively by the NDF. The research found clear command commitment by the Namibian Navy towards littoral protection and regional marine custodianship, although constrained by financial and political factors. The Mozambican Navy is still in the development process and no evidence could therefore be found of an existing MPP framework, although the regulatory framework towards improved ocean governance does indicate commitment to national and regional marine protection.

Sub-Research Objective: *To determine to what extent the policy frameworks of the three navies are aligned.*

Repeated regulatory and literature evidence was found that elucidates and corroborates the regional commitment by the three navies to marine protection in their respective EEZs. It is, however, at the national level where the three navies are not aligned with one another and where it is clear that an opportunity exists for improved transboundary agreements towards improved policy framework development.

The main objective of developing an NTMPPF was achieved. The use of grounded theory as the research methodology elucidated how political will and economic will are the key

determining factors at both the national and SADC level for the review of the current SADC MSS and its objectives and within the CEMZA framework. The research found marine protection projects and ocean governance systems such as the IOM, ASCLME, and BCLME that could be integrated into the policy frameworks of the SADC and that of the SADC MSS. The key factors of ocean governance, interoperability, and capacity building proved to be imperative for both the development of an NTMPPF and a regional challenge within the highly constrained naval contexts of each of the littoral states in the study.

7.5 RESPONSE FROM THE NAVIES REGARDING AN NTMPPF

The three respective navies in this study were presented with semi-structured, open-ended questions (see Questions 3.1 to 3.7 in Appendix D), and their responses were as follows:

7.5.1 Ocean governance as a determining factor for an NTMPPF

All the respondents experienced and expressed similar views on the need for a policy framework that will protect the regional littoral zone and that will bring about improved interoperability and capacity building. The view of the respective respondents was that the organisational architecture needs to be addressed by means of improved governance that will allow SADC navies to serve both their citizens and the littoral zone in a more effective and visible manner. The views expressed by N1, N2, N3, MA1, NA1, and NN1 validated and supported the research aim and Research Objectives 1 and 2, but more importantly, the views expressed by the respondents showed alignment with the theories and ocean governance systems.

The respondents repeatedly responded in similar ways that the SADC in its drive towards AIMS 2050 and a blue economy will have to influence and articulate the role of the navies to their "landward-thinking" political principals and motivate the need for increased utilisation of navies within the SADC as a regional opportunity.

The use of grounded theory during the analysis of the datasets presented the following thematic patterns:

- The respondents indicated that they were not at all informed of what marine protection within a naval context should comprise. The SAN respondents acknowledged their

knowledge of SAN environmental policies but indicated that more research and cross-sectoral alignment between maritime stakeholders needed to take place.

- All the interviewees presented the thematic pattern that the SAN would be compelled to lead the process and that both the AU and SADC will have to create the impetus for all navies to focus increasingly on interoperability and capacity building in support of improved maritime security and better protection of marine resources.

- The South African, Namibian, and Mozambican navies are intricately dependent on one another within the suggested MPP framework of the SADC SMC.

- The navies in this research require more support in terms naval research on how to improve their MDA and ocean governance policies and how to improve their commitment to the protection of national and regional marine resources.

It became increasingly apparent throughout the interviews that synergy by means of effective ocean governance and increased interoperability within the SADC maritime domain was of the utmost importance as it affected all maritime stakeholders nationally, regionally, and internationally, from a blue economy perspective.

7.5.2   Interoperability as a determining factor for an NTMPPF

The interviewees were asked, with reference to Questions 1.7 to 1.8 and Questions 2.4 and 2.8, how they perceived inter-defence engagement and the role of SADC navies within EEZs. The inference that was made was that the geo-strategic position of Namibia, South Africa, and Mozambique in the SADC presents very specific trade advantages but also a responsibility for the SADC navies to protect and maintain the necessary levels of maritime security, which invariably would require effective interoperability among the naval platforms. This therefore necessitates these navies to constantly revise and improve their regional naval interoperability by means of intermittent exercises and operations.

The SAN respondents indicated that not only was enhanced interoperability with its regional naval forces important but also with a national department such as the Department of Environmental Affairs in terms of a cross-sectoral approach. The Mozambican and Namibian Navy respondents had similar views in terms of SADC naval forces that need to share best practice and co-opt subject matter experts who will improve capacity building and the level of interoperability during operations and naval exercises. The SAN and CSIR respondents pertinently referred to the SADC MPSO 1 doctrine of the ISDSC, as well as the Instructions

for Officers Commanding on the Conduct of Maritime Peace Support Operations Joint Doctrine.

The reality at operational and regional levels, as supported by both the respondents and the literature studies, dictates that a regional responsibility rests upon an already constrained SAN. The views of both NN1 and N4 echoed the progress made by the SADC SMC towards the integration of improved interoperability into its command structures. The concern expressed by N3 regarding a decreasing budget that he predicted to become the "Achilles heel" of the SAN will increasingly impede and undermine the national and regional expectations of the SAN playing a leading role towards a blue economy and creating the stimulus for the development of an NTMPPF. This notion of worsening economic woes in South Africa, Mozambique, and Namibia was found to be present in the views of all of the respondents in the study. It more specifically centred on the national and regional political and naval support for an MDAC within the SADC. It is for this reason that current intellectual capital, both within the naval context as well as external subject matter experts, needs to be sourced for capacity building in support of an NTMPPF.

7.5.3 Capacity building as a determining factor for an NTMPPF

The use of the grounded theory approach allowed the researcher to assess whether there is a relationship between the different themes and if certain themes are deemed more important than others. The observation made in respect of the responses received from N1, N2, N3, N4, G1, and NN1 highlighted the importance of integrating the concept and regional drive towards a blue economy approach into the joint training curriculum of all SADC naval forces. The views of G1 and NN1 reiterated the need to change the current land-based archaic capacity-building approach to include an ocean-focused approach that is aligned with Operation Phakisa and AIMS 2050. The position held by both the Mozambican and Namibian respondents indicated that a thematic relationship existed with all other respondents, and a correlation was observed that proved the importance of marine protection capacity building. The role of the SAN was once again observed to be critical in terms of sharing best practice with regard to capacity building within the SADC context.

The gradual decline in funding for the SAN, as mentioned by the SAN respondents, is a sign that political decision makers and their policy developers lack knowledge and comprehension of the value of securing the littoral zone and protecting the marine resources that strengthen

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the economies of littoral states. The absence of synergised capacity building towards marine protection among SADC naval forces was perceived by all the respondents as a key factor that negatively affects the support required from the respective governments and relevant subject matter experts.

7.6   LIMITATIONS OF THE STUDY

The researcher encountered the following limitations during this qualitative study:

7.6.1   Occupational involvement in SAN environmental management

The researcher has been employed by the DOD for 29 years, of which the last 18 years were with the SAN. This might be considered as a factor that could affect the researcher's judgement and position towards the strategic and operational needs of the SAN and therefore could have possibly influenced the required unbiased approach to the research. The researcher countered this with an approach to take on the role of the "disinterested observer" throughout the research.

7.6.2   Limiting influence of the COVID-19 pandemic

The biggest constraint that affected the research was the impact of the COVID-19 pandemic on the availability of research participants and the national restrictions imposed on travel that affected the movement of the researcher. The researcher did attempt remote data collection but it was not successful. The impact of COVID-19 also negatively affected the data collection process as all movement was suspended and did not allow for sufficient respondents to be interviewed in order to support saturation and the grounded theory approach.

7.6.3   Conflict in Mozambique

The escalating conflict in Cabo Delgado, situated in the northern part of Mozambique, affected the planned follow-up interview with a Mozambican naval respondent as arranged by the researcher with Navy Headquarters in Pretoria. The political sensitivity and increased scrutiny by the SADC of Mozambique due to the conflict in Cabo Delgado complicated any further voluntary research engagement. To achieve saturation the researcher had to rely more on literature studies than on the input from the Mozambican respondent.

7.6.4   The influence of available research respondents

The researcher understood from the onset of the study that the subject matter was relatively new to the both the SAN and the SANDF. It is for this reason that the study included the use of an approved questionnaire framework, interviews, policy analysis, and statutory analysis in order to collect data. During the literature review and more specifically during the field research, the researcher observed that NTMPPFs among SADC or AU navies have not been researched. The shortage of data obtained from the MDF and the Namibian Navy were expected but was negated by the strategic intent declared by the SADC SMC, the of which Mozambique and Namibia forms part of. It also did not have any specific influence on the quality of the findings as critical realism required theoretical saturation and the collected data proved to be sufficient to reach meaningful findings. The requirement for saturation was addressed by ensuring that a combination of both primary and secondary sources was used in support of the research objectives.

7.7   CONCLUDING REMARKS

The research process must be completed by assessing to what extent the study addressed the research objectives. The following conclusive research findings provide the assessment that was made during the study.

7.7.1   To develop an NTMPPF between the navies of South Africa, Namibia, and Mozambique

An NTMPPF was developed for the navies of South Africa, Mozambique, and Namibia. The study found no evidence or literature on NTMPPFs among navies at regional level. The researcher therefore postulates that the subject matter in this study is a new policy concept not only among the three navies in the study, but also among navies in the rest of the world. Should this policy-development proposal be accepted by the SADC SMC, then the SAN will have to be the leading stakeholder during the policy-development process.

7.7.2   To assess the current status quo of MPP in the Namibian, South African, and Mozambican navies

The study, as discussed in Chapter 6, used ocean governance, interoperability, and capacity building as the key factors to determine the status quo of MPP in the three identified navies.

The study found that only the SAN had an MPP developed by its command cadre. The Namibian Navy has drafted an MPP framework with another government department and the Mozambican Navy has only adopted SADC policy frameworks but its navy is not at the level of the Namibian Navy or the SAN.

The overarching political and economic will in the SADC, based on available literature found during the study, provided strong evidence that maritime security and the protection of marine resources are of the highest importance. The current absence of an MPP framework in the Mozambican Navy provides both a compelling reason for policy review and a good opportunity for further neo-regional engagement and support to be provided by the neighbouring SADC littoral member states towards improved ocean governance.

The factors and drive towards improved ocean governance were found in all of the regulatory frameworks of the three navies and provided the framework for maritime security, marine protection, and regional policy stability. It is interoperability among these naval forces that is required and of which evidence was found in the form of recent naval exercises and operations such as Operation COPPER and Exercise GOLFINHO.

The SMC of the ISDSC views interoperability among navies as very important and this is even more important for combined exercises and operations in order to support and achieve a secure CEMZA. The study highlighted the need for a multi-party, cross-sectoral inclusive approach to address the lacuna where marine protection scientists, government departments, politicians, and navies interact and address capacity building that is required at the various levels in governments, defence forces, and their navies. The development of an NTMPPF requires active involvement and support by each of the three navies, especially Mozambique, where language is a barrier.

This study found that capacity building in ocean governance and interoperability will address the sharing of knowledge and best practice among SADC naval forces but that it will have to be facilitated by subject matter experts who do not necessarily have in-depth knowledge of the capacity-building needs of each navy in this study.

The stages are, however, directly dependent on carefully planned and considered organisational architecture that the SADC SMC will determine based on the guidance received from their political principals. Political support and involvement are central to the successful development

of the NTMPPF as it requires SADC SMC secretarial oversight to ensure that the multi-party stakeholder process is managed effectively and efficiently in a transparent manner.

7.8   RECOMMENDATIONS

Based on the documentary evidence and the input of the interviewees, it is recommended that the available marine protection studies, ICZM programmes, marine protection conventions, marine protection protocols, the SAN MPP, and AU-led programmes are sufficient to support the navies towards NTMPPF. The need for greater AU and SADC regional cooperation was also clearly stated in this study through strategies such as AIMS 2050, Agenda 63, BCLME, ASCLME, and the SADC MSS. The recommendation is to consider the benefit of conducting hydrographical surveys of the respective coastlines and by implication address tension regarding maritime borders.

The contemporary regional role that the SAN is playing with the support of the Namibian and Mozambican navies as part of the SADC SMC towards the review and reform of the SADC MSS suggests that an NTMPPF must be addressed at REC level and then cascaded down to SADC and national levels. The maritime security reforms that are presupposed through the respective AU and regional agreements will therefore be indicative of the gradual governmental, economic, social, and ecological expectations that the AU and SADC and its navies are experiencing and are expected to gradually integrate into their mandatory policy frameworks.

The SAN is in a favourable position to share best practice and provide support to its neighbouring littoral navies but needs to consider the political and economic imperatives that these littoral zones represent both at national and regional levels. The shared national and regional interests are compared with the conflicting economic and ecological maritime resources that each littoral country in this research study possesses. The reality of jurisdictional overlapping on the oceans, as there is no clear boundary and the fact that the three navies in this research paper are directly dependent on one another for regional cooperation, justifies the argument for ocean governance, interoperability, and training to be considered towards improved marine protection from a policy perspective. It is recommended that a comprehensive and all-inclusive jurisdictional assessment be drafted during the creation of the NTMPPF in order to address possible jurisdictional challenges and ocean governance factors.

It must be reiterated that good ocean governance, supported by sound organisational architecture, is the determining factor that is instrumental in ensuring the effective and timeous planning and development of an NTMPPF. The interpretation of governance, however, varies from one littoral state to another and the absence of coercive state power in the SADC is accepted as a sign towards improving governance and allows for improved regional cooperation such as the RSP but applied in an REC such as the SADC. It could be argued that the respective SADC littoral states of this study can prove to be the proverbial instruments for "collective action towards marine custodianship". This policy initiative is, however, compromised by the impact of varied levels of communication obstacles, a lack of capacity building, emerging ocean governance architecture, volatility in political will, financial constraints, and limited interfacing or interoperability among the three navies.

7.9   FUTURE RESEARCH PROSPECTS

The relevance of the research problem set in the context of a developing REC such as the SADC still needs to be assessed based on the analysed documentary evidence and the input from the respondents, combined with the theoretical knowledge. The researcher posits that the lacunas identified based on repeated patterns in the study will allow for the development of an NTMPPF in other RECs such as ECOWAS and ECCAS and create scientific impetus for future theoretical and scientific contributions.

The recent commitment shown by countries such as Tanzania to marine protection also needs to be considered for possible extensions on the findings of this study. The objectives of Agenda 63 and AIMS 2050 serve as a unifying platform for all AU navies to consider the benefits of a CEMZA and improved maritime security.

7.10   SYNOPSIS OF THE CHAPTERS

The research is summarised by providing a synopsis of each respective chapter, as follows.

7.10.1   Chapter 1

Chapter 1 set out to provide the background for the research, and explained the problem statement, the objectives of the research, and the research questions. It was followed by the limitations and the ethical considerations of the research.

The increasing littoral reality of developing countries such as South Africa, Namibia, and Mozambique is that more emphasis is placed by decision makers and industry on the importance of the respective governments drafting public policy in order to deal with the complexities and requirements for prosperity and economic growth. Alignment with the strategic objectives of AIMS 2050 and the respective regional economic bodies such as the SADC is advocated by political leaders and marine scientists alike. This chapter elucidated the challenge thereof that constrained entities such as South Africa, Namibia, and Mozambique need to match their policy goals with policy means as a way of problem solving and strive to regional policy synergy. The similar economic challenges faced by South Africa, Namibia, and Mozambique provide a compelling agenda for shared regional interaction and support. It is, however, the interpretation of public policy and how it is sustainably implemented to the advantage of the citizens from a socio-economic perspective, as well as to the advantage of the region, that requires more clarity and political will.

This chapter also presented the theoretical framework on how to utilise a combination of the environmental management sciences in conjunction with the public administration domain to achieve the research objectives and to answer the research questions. The chapter highlighted on the effort made by the international community to commit both diplomatic effort and political capital to establishing policy commitments aimed at reversing ocean degradation. Evidence was provided that a gap still exists between the political will, policy documents, and the actual implementation thereof; the research question was therefore addressed.

7.10.2   Chapter 2

Chapter 2 elaborated on the background of the research. The focus of this chapter was to provide a literature study that would allow a better understanding of the MPP stance of governments in developed and developing states and the approach they opted for in order to protect their littoral areas.

Clarity was sought on how policy is developed and what process is followed when developing a policy. Theoretical and documentary research was conducted on the importance placed by international, regional, and national organisations on policy development. The researcher continued to collect the data related to policy development within the context of marine protection in order to align it with the research questions and objectives of this dissertation. The literature review considered how policies relating to marine protection are affected by

factors such as governance and capacity building among developed and developing littoral states with the focus on a NTMPPF. The various ocean management approaches that seek to address mitigating measures, as well as the limitations and opportunities thereof, were researched. The research emphasised the importance of how a region such as the SADC would have a different policy framework than that of a developed littoral region.

The theoretical and documentary data that were researched presented strong evidence that consideration needs to be given to the relation between MCDAs and participatory processes, especially in the context of emerging littoral states and RECs with constrained economies such as the SADC. The use of MCDAs is often advocated for complex environmental issues on the grounds that they do not assume commensurability of different dimensions of value. MCDAs are well suited for integration into participatory processes in the design of new strategies to address environmental and sustainable development issues.

The objective of Chapter 2 was achieved as it provided a broad but well-understood framework of the MPP stance of governments in developed and developing states. It highlighted the best practice approaches in order to protect littoral areas. The aim of the chapter allowed the researcher to incrementally build the grounded theory in order to achieve the research objectives and to answer the research questions.

7.10.3   Chapter 3

Chapter 3 set out to clarify how global MPPs through the use of governance and training have reinforced and facilitated "symbiosis" between the various emerging littoral states, as well as the important transboundary marine protection role that emerging countries are expected to play and maintain on the high seas. This chapter furthermore attempted to explain the ever-increasing important position of Africa's emerging role in advancing the securing of neo-regional integration of MPP frameworks among African states within the AMD.

7.10.4   Chapter 4

In Chapter 4, the researcher posited the importance of the neo-regional contribution of SADC littoral navies such as the Namibian, South African, and Mozambican navies within the AMD. The researcher argued that although constrained, there is an opportunity for a possible gradual move towards transboundary MPP development aspects such as sustainable marine protection, naval assistance in the governance of the littoral zone, improved regional interoperability with

neighbouring littoral states, and improved naval cross-training opportunities. The challenge that landlocked states with landward economies face versus the benefits of littoral states that have increasing access to a blue economy must be seen as an opportunity for improved transboundary agreements and not as a point of conflict.

This chapter presented compelling evidence that the SADC navies concomitantly have both a strategic advantage in terms of their geo-strategic position and a compromising military-political challenge to bridge towards establishing an NTMPPF that is both supportive of a secure maritime domain as well as protective of the marine environment with its natural resources. The challenge lies in agreeing to such a policy framework and sustainably maintaining synergy for the possible further escalation into the rest of the AU.

7.10.5   Chapter 5

In this chapter, the qualitative research approach was described. The motivation for the research within a naval environment was contextualised. The choice and application of grounded theory were explained, as well as how interviews and questionnaires as research methods supported the research. The types of data-collection techniques were expanded upon, as well as how the researcher set out to analyse the collected data. Critical factors such as quality, validity, dependability, credibility, and ethics were explained as prerequisites for research. The use of an inductive research approach using grounded theory towards the development of a theme or codes from the various sub-samples was clarified. The need for the categorisation of the collected data that were based on the research questions and the research objectives was emphasised.

7.10.6   Chapter 6

The contribution of Chapter 6 involved a gap analysis of the emerging neo-regional role of the Namibian, South African, and Mozambican navies, as well as the need for improved transboundary MPP frameworks. For the purposes of this chapter, the problem statement of this research focused on the absence of a transboundary MPP framework among the navies of Namibia, South African and Mozambique, with specific reference to ocean governance, interoperability, and training as key performance factors. It is the gaps that may or may not exist among the aforementioned factors that should enable improved regional cooperation in terms of an NTMPPF between the abovementioned three SADC navies.

The mandate of the three navies directly originates from the ministerial tasking given to each respective national defence force and is a reflection of the national security regulatory framework ratified by each government. It is a research objective to first assess the respective legislative frameworks (as they create the foundation for governance) applicable to the AU as the overarching organisation that serves as a guiding organisation for all African states such as the SADC member states.

The more inclusive and representative that marine protection regional agreements and policy frameworks are, the higher the probability that they will receive the necessary political and socio-economic support.

The importance of creating a nexus for continued development of maritime security and improved ocean governance frameworks across the AMD and for the purposes of this research in the SADC is key to the sustainable management of the African littoral domain.

The subsequent interaction over the past decade between Namibia, South Africa, and Mozambique was therefore inevitable and for that reason the SADC SMC presents a diplomatic platform for all SADC navies to engage one another in ensuring peace and stability in the region. The maritime security challenges are key to the sustainable development of the respective economies.

The realist interpretation views the oceans as a domain where the superpowers exert varying levels of naval power. The plurality of Africa's navies necessitates the acknowledgement of a plethora of different national defence mandates, defence strategies, defence capabilities, doctrines, ability to engage in interoperability, and ultimately the focus on capacity building. For many navies this is but one part of their mandate and for some almost a peripheral matter with secondary roles manifesting as their only mandate or where they are most operational.

This study has unequivocally proven that a crisis is pending in the littoral zone of the SADC based on the statements made by the South African Minister of Defence and Military Veterans, as well as the Chief of the SAN, from a South African perspective. This is supported by the request by the president of Mozambique to the SAN and the Defence Minister of Namibia for assistance in safeguarding the Mozambican maritime resources. The response by the Chief of the SAN in 2018 as the leading naval nation again emphasised the critical challenges that the SAN faces in protecting the maritime sovereignty of South Africa, as well as those of the SADC. The challenge lies in the fact that in order to ensure sovereignty, it must be exercised

in order to be recognised. The constabulary and diplomatic roles are not only at risk that could result in organisational inertia, but the overall SADC MDA is compromised, and so is the probability of increased illicit activities and littoral sovereignty being compromised.

This study contributes to the body of knowledge by proving that there is indeed a regional need for a shared transboundary policy framework on marine protection between the navies of Namibia, South Africa and Mozambique. This study adds to the internationally accepted model of a blue economy by means of a NTMPPF for SADC navies that does not currently exist.

The plurality of SADC navies necessitates the acknowledgement of a plethora of different national defence mandates, defence strategies, defence capabilities, doctrines, ability to engage in interoperability, and ultimately a focus on capacity building. The South African government, and more so the SAN, realises the importance of coordination and cooperation between the different SADC navies. The concept of interoperability is the binding factor after shared governance and share capacity building are confirmed.

The researcher therefore postulates that the neo-regional regime of cooperation and integration of maritime powers, notwithstanding the importance of contemporary studies of sea power, maritime law, conventional operational planning, and the increasing emergence of asymmetric warfare, is concomitantly a political and sociological imperative to move to a more multi-disciplinary and interdisciplinary perspective and MPP reform.

From a research opportunity point of view, the researcher is confident that extensive research can still be conducted on the subject matter as postulated in this dissertation. It is, however, prudent to be reminded that a staggered approach needs to be considered should a simplistic and realistic policy framework be envisaged.

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APPENDICES

Appendix A: Approval for Continuation of Doctoral Research

sa navy
Department
Defence
REPUBLIC OF SOUTH AFRICA

NBS/C/86604071
NBS/R/401/1/3/9

Telephone:	(021) 787 4215	Naval Base Simon's Town
Facsimile:	(021) 787 4214	Private Bag X1
Mobile:	+27 844852020	Simon's Town
E-Mail:	wernerkwak@gmail.com	7995
Enquiries:	Cdr G.W. Kwak	اذ June 2019

86604071 PE CDR G.W. KWAK: COMMENCEMENT OF POST GRADUATE DOCTORAL STUDIES FIELD RESEARCH

1.   Approval granted to Cdr G.W. Kwak by Directorate Fleet Human Resources in completing a Doctorate in Philosophy has reference.

2.   The Faculty of Military Science as part of the South African Military Academy has granted Cdr Kwak, under the supervision of his Doctoral Supervisors, Lt Col (Prof) W.J. Janse Van Rensburg and Cdr (Dr) K.I. Theletsane, approval to continue with his field research as part of his doctoral research. Part of the field research includes the conducting of open-ended interviews with various Subject Matter Experts.

3.   The doctoral research will focus on the possible "Development of a Neo-Regional Transboundary Marine Protection Policy Framework between the Navies of South Africa, Namibia and Mozambique". These interviews, once approved and agreed to, will be conducted with senior principals such as South African Navy Command and Staff appointees, Director Generals at Department Environmental Affairs (Oceans and Coasts), the respective Defence Attachés from Namibia and Mozambique as well as legal Subject Matter Experts at Nelson Mandela University (Prof D. Swartz) Prof J. Glazewski (University of Cape Town), Dr N. Malan (ret) Department Environmental Affairs and Prof J. Hare (University of Cape Town).

4.   It is however important to note that the interviews with the Namibian and Mozambican Naval Attachés can only be permitted with the support and approval granted by Chief Director Maritime Strategy (CDMS), Rear Admiral D.M. Mkhonto for further administrative processing.

5.   Once approval from CDMS has been obtained as well as that from South African Navy Foreign Relations and Department International Relations and Cooperation, the prescribed academic process will be followed to contact and inform the respondents/interviewees on their rights and nature of the planned interviews.

6.   The favorable consideration and approval of this request is therefore requested in order to allow Cdr G.W. Kwak to complete his post-graduate doctoral studies and allow him to continue to add value to his naval vocation.

(G.W. KWAK)
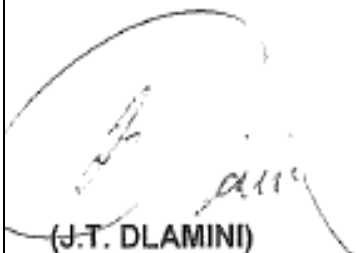ENVIRONMENTAL MANAGER NAVAL BASE SIMON'S TOWN

Remarks _The member request is supported and recommended that these interviews are conducted in order for him to complete his doctoral Studies_

(K.M. PATRICK)
FACILITIES OFFICER IN CHARGE NAVAL BASE SIMON'S TOWN: CAPT (SAN)

Remarks _Strongly Recommended_
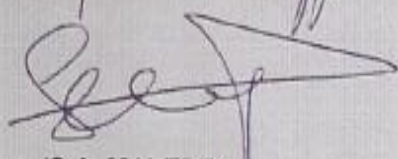
(J.T. DLAMINI)
FLAG OFFICER COMMANDING NAVAL BASE SIMON'S TOWN: R/ADM (JG)

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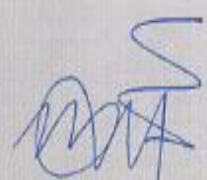
86604071 PE CDR G.W. KWAK: COMMENCEMENT OF POST GRADUATE DOCTORAL STUDIES FIELD RESEARCH

Remarks *Member was approved to study at state expense. For the Member to complete his research he needs to interface with International entities to do authority is is needed from Navy HQ Request is supported.*

(S.A. MALEPE)
SENIOR STAFF OFFICER FLEET EDUCATION, TRAINING AND DEVELOPMENT: CAPT (SAN)

Remarks *The Study will add value in the maritime security environment within the Southern African maritime region. The request is therefore fully supported.*

(D.M. MKHONTO)
CHIEF DIRECTOR MARITIME STRATEGY: R/ADM

Appendix B: Informed Consent Form

STELLENBOSCH UNIVERSITY

CONSENT TO PARTICIPATE IN RESEARCH

Dear Sir/Madam

My name is Commander Werner Kwak, and I am a postgraduate student at the Faculty of Military Science, Saldanha Military Academy. I would like to invite you to participate in a research project titled "The Development of a Neo-Regional Transboundary Marine Protection Policy Framework for the Navies of South Africa, Namibia, and Mozambique".

Please take some time to read the information presented here, which will explain the details of this project. Please contact me if you require further explanation or clarification of any aspect of the study. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

I am conducting research on the possible development of a neo-regional transboundary marine protection policy framework for the Namibian, South African, and Mozambican navies with specific focus on the following:

- An assessment of the current state of corporate governance such as existence of environmental policy on naval strategic and operational level specifically with marine protection as a focus area within the three countries.
- An assessment of interoperability as a concept within the policy/naval doctrine framework during regional exercises/operations and if provision is made for alignment with other navies.
- The existence and extent to which naval marine protection policy per country focuses on environmental education and training and development of own forces and if it conforms to international regulations.
- To determine to what extent correlation exists between the policies of the three countries.
- The researcher will then develop a transboundary marine protection policy framework that will promote the deployment of naval forces on an environmentally sustainable manner and simultaneously protect the regional marine resources entrusted to it.

Assurance can be given that all efforts will be made to prevent any discomfort, inconvenience and/or psychological stress during the interview.

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The benefits of this research reach further than just for the organisation, but will also provide a baseline for further regional cooperation among the Southern African Development Community navies of Namibia, South Africa, and Mozambique as well as sustained management of the marine environment entrusted to these naval forces.

All interviews will be recorded with a digital voice recorder and the storage thereof will be at the Faculty of Military Science for future possible access after permission by the faculty was obtained.

The information acquired during the interview will be deemed private and confidential. The information, as stated, will be stored at the Faculty of Military Science and can be accessed once approval has been granted by the Faculty of Military Science. Due to the nature of the information being collected that relates to marine protection, it is possible that further research might be initiated to explore other discourses.

It must be reiterated that participation is completely voluntary and withdrawal at any time during the research study is possible without any negative consequences and that you may choose not to answer certain questions and still remain in the study.

RIGHTS OF RESEARCH PARTICIPANTS: You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights, or remedies because of your participation in this research study. If you have questions regarding your rights as a research participant, contact Mr Werner Kwak on +27 84 485 2020, wernerkwak@gmail.com or his supervisor, Lt Col (Prof.) W. Janse van Rensburg, on +27 84 583 8603 or email Wikus@ma2.sun.ac.za. You have the right to receive a copy of the information and consent form.

If you are willing to participate in this study, please sign the declaration of consent.

DECLARATION BY PARTICIPANT

By signing below, I ………………………………………………….……………. agree to take part in a research study titled The Development of a Neo-Regional Transboundary Marine Protection Policy Framework for the navies of South Africa, Namibia, and Mozambique and conducted by Mr Werner Kwak.

I declare that:

- I have read the attached information leaflet and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressured to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.
- All issues related to privacy and the confidentiality and use of the information I provide have been explained to my satisfaction.

Signed on …………....………………...

....

Signature of participant

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____. The interviewee was encouraged and given ample time to ask me any questions. This conversation was conducted in English/Afrikaans/Portuguese. *No translator was used / This conversation was translated into _____ by _____.*

_____   _____

Signature of Investigator   **Date**

Appendix C: Stellenbosch Research Ethics Committee: Notice of Approval

UNIVERSITEIT STELLENBOSCH UNIVERSITY

NOTICE OF APPROVAL

REC: Social, Behavioural and Education Research (SBER) - Initial Application Form

26 November 2020

Project number: 0839

Project Title: Developing a Neo-Regional Transboundary Marine Protection Policy Framework Between the SADC Navies of Namibia, South Africa and Mozambique

Dear Mr Gerrit Kwak

Your REC: Social, Behavioural and Education Research (SBER) - Initial Application Form submitted on 9 November 2020 was reviewed and approved by the REC: Social, Behavioural and Education Research (REC: SBE).

Please note below expiration date of this approved submission:

Ethics approval period:

Protocol approval date (Humanities)	Protocol expiration date (Humanities)
26 November 2020	25 November 2023

GENERAL REC COMMENTS PERTAINING TO THIS PROJECT:

INVESTIGATOR RESPONSIBILITIES

Please take note of the General Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

If the researcher deviates in any way from the proposal approved by the REC: SBE, the researcher must notify the REC of these changes.

Please use your SU project number (0839) on any documents or correspondence with the REC concerning your project.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

CONTINUATION OF PROJECTS AFTER REC APPROVAL PERIOD

You are required to submit a progress report to the REC: SBE before the approval period has expired if a continuation of ethics approval is required. The Committee will then consider the continuation of the project for a further year (if necessary).

Once you have completed your research, you are required to submit a final report to the REC: SBE for review.

Included Documents:

Document Type	File Name	Date	Version
Informed Consent Form	SU HUMANITIES Consent Form_Declaration_2019	15/10/2019	1
Data collection tool	INTERVIEW FRAMEWORK	03/11/2020	1
Informed Consent Form	img-Z11085237	04/11/2020	1
Informed Consent Form	img-Z11085339	04/11/2020	1
Informed Consent Form	Signature page	04/11/2020	1
Default	img-Z11085237	04/11/2020	1
Default	img-Z11085339	04/11/2020	1
Default	Signature page	04/11/2020	1

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| Research Protocol/Proposal | WERNER_PHD_RESEARCH_PROPOSAL_Nov_2020 | 04/11/2020 | 2 |
| Default | Application for Ethical Clearance_Nov 2020 | 04/11/2020 | 1 |

If you have any questions or need further help, please contact the REC office at cgraham@sun.ac.za.

Sincerely,

Clarissa Graham

REC Coordinator: Research Ethics Committee: Social, Behavioral and Education Research

National Health Research Ethics Committee (NHREC) registration number: REC-050411-032.
The Research Ethics Committee: Social, Behavioural and Education Research complies with the SA National Health Act No.61 2003 as it pertains to health research. In addition, this committee abides by the ethical norms and principles for research established by the Declaration of Helsinki (2013) and the Department of Health Guidelines for Ethical Research: Principles Structures and Processes (2nd Ed.) 2015. Annually a number of projects may be selected randomly for an external audit.

Appendix D: Planned Interview Framework

sa navy
Department:
Defence
REPUBLIC OF SOUTH AFRICA

NBS/R/401/1/3/9

MEMORANDUM

Telephone:	021 787 4215	Naval Base Simon's Town
Fax:	021 787 42147	Private Bag X1
Enquiries:	Cdr G.W. Kwak	Simon's Town
		7995
		17 April 2019

From: Environmental Manager

To: Lt Col (Prof.) W. Jansen van Rensburg

PHD INTERVIEW FRAMEWORK

Appendix A: Planned Interview Framework

1.   Discussion between Lt Col (Prof.) W. Jansen van Rensburg and Cdr G.W. Kwak dd 11 Apr 19 has reference.
2.   The attached document (see Appendix A) with the relevant open-ended questions is envisaged for the respective interviewees as part of the data-collation and -analysis process, once approval has been granted by the Ethics Committee of Stellenbosch University.
3.   The first set of questions (Serial 1) are posed to Regulatory Bodies such as Department Environmental Affairs (Oceans and Coasts), the respective Defence Attachés from Namibia and Mozambique as well as legal Subject Matter Experts at Nelson Mandela University (Prof. D. Swartz) Prof. J. Glazewski (UCT), Dr N. Malan (ret) Department of Environmental Affairs and Prof. J. Hare (UCT).
4.   Serial 2 will be presented to Command and Staff Functionaries at SANDF, Naval Headquarters, and Command and Staff Functionaries at Directorate Joint Operations. The researcher will further attempt to gain insight from Fleet Command and Staff Functionaries that reside in Simon's Town.

(G.W. KWAK)
ENVIRONMENTAL MANAGER NAVAL BASE SIMON'S TOWN: CDR

Planned Interview Framework

S/No.	Regional Level	Questions
1	**SADC littoral states in terms of RSA/NAM/MOZ**	1.1 Does legislation exist in terms of marine protection awareness or marine resources protection in Mozambique, and Namibia, and, if so, kindly mention what.
		1.2 Does Southern African Development Community (SADC) marine protection transboundary policy exist, and what does it entail within the SADC context?
		1.3 If so, which White Papers on marine protection exist in Namibia and Mozambique?
		1.4 Do Namibia and Mozambique have a coastal policy that provides a regulatory framework for coastal development/protection as what exists in South Africa (the National Environmental Management: Integrated Coastal Management Act, No. 24 of 2008)?
		1.5 Is it important for the three countries to ensure protection of the marine environment within the SADC EEZ and shared governance of high seas?
		1.6 Do the governments of the three states value contribution of the navies with regard to EEZ constabulary, diplomatic, and survey roles?
		1.7 Is there a need from a (inter)governmental point of view in the future within the SADC to show / be committed to / be involved in naval force projection/presence towards marine resources protection?
		1.8 What have the three countries done to utilise the role of the navies in their EEZs?
		1.9 Is there political support for navies to take custodianship of marine environment protection, on state level and regionally, such as within the SADC and AU?

2	**Navies from the defence perspective**	2.1	Do the SADC navies (South Africa, Mozambique, and Namibia) show strategic commitment / regional ownership towards marine protection and coastal security?
		2.2	What would the typical marine protection policy (MPP) framework objectives be that will be pursued by the three littoral states/navies?
		2.3	Have there been any evolutions in terms of ICM / marine protection towards/among or within the three countries, and, if so, what?
		2.4	Do navies play a role in the marine protection of EEZs and high seas within the SADC, and, if so what?
		2.5	Does synergy exist between political and military views in terms of an MPP framework?
		2.6	Does synergy (agreement) exist between political and military views in terms of MPP development?
		2.7	What, if any, influence, do SADC navies have on the west and east coasts of Southern Africa in terms of constabulary and diplomatic roles?
		2.8	Is there sufficient naval similarity in terms of governance, training, maritime security, and interoperability among the three navies to promote synergy towards an MPP framework?
		2.9	What are the major challenges in terms of developing an MPP framework (such as funding, training resources, law enforcement, and jurisdiction)?
		2.10	Would the promotion/development of marine protection within a naval context provide enough opportunities and naval partnerships for political support?
		2.11	What tailor-made actions have to be taken to meet country-specific needs and priorities in terms of an MPP framework?

3	**Naval Perspective**	3.1	What would the typical MPP framework objectives be that will be pursued by the three littoral navies?
		3.2	Role of the South African Navy (SAN) in terms of marine protection within a Namibian and Mozambican context?
		3.3	Role of SAN in terms of Maritime Domain Awareness (MDA) within a Namibian and Mozambican context?
		3.4	What is the view of the SAN on the Combined Exclusive Maritime Zone of Africa (CEMZA)?
		3.5	Do the three navies have an environmental protection policy?
		3.6	Would the promotion and the development of marine protection within a naval context provide enough opportunities and naval partnerships for political support?
		3.7	Would all three navies agree to a combined trilateral development of an MPP framework?
4	**Operation Phakisa**	4.1	What is the importance of Operation Phakisa for the SAN in terms of strategic objectives?
		4.2	Do Namibia/Mozambique have similar economical projects?
		4.3	Is Operation Phakisa communicated to SAN employees in terms of a blue economy?
		4.4	How is the importance of oceans communicated to Namibian/Mozambican naval forces?
		4.5	Has the SAN received any taskings from the Ministry of Defence or the Chief of the South African National Defence Force in terms of Operation Phakisa, i.e., blue economy?
		4.6	Is there government support for the SAN to take ownership of ocean governance?
		4.7	What is the view of the SAN on the CEMZA? Also Namibia/Mozambique?
		4.8	How does the Integrated Coastal Management Act within national environmental management compare to the other two littoral states?
		4.9	What would be required to ensure continuity throughout the process of such a development process?

		4.10	How would improvement/success be measured in terms of the policy development process?
5	**Governance**	5.1	What role would cooperative environmental intergovernance play within the formulation of an MPP framework?
		5.2	Is the SAN involved in governance of high seas, and, if so, how, within the Namibian and Mozambican context?
		5.3	What role does the SAN play in supporting other governmental organisations and non-governmental organisations in governance of the high seas?
6	**Capacity building**	6.1	Is marine protection, e.g. marine pollution accords and environmental management education, an important factor for all command and support functionaries?
		6.2	Can the SAN's specific knowledge among the SADC navies in terms of marine protection be merged to develop a neo-regional transboundary marine protection policy framework (NTMPPF)?
		6.3	What is the importance of sharing training doctrine among SADC navies in terms of MPP?
		6.4	What is the importance of educating the senior command cadre on marine protection within a Namibian and Mozambican context?
		6.5	What should MPP training address?
7	**Interoperability**	7.	What is the importance of interoperability in terms of combatting marine degradation?
8	**Maritime security**	8.1	What is the view of the naval command of maritime security vs MPP?
		8.2	Would the MPP framework contribute to maritime security within a regional context?

Appendix E: Environmental Evaluation of Policies, Plans, and Programmes of the DOD based on the National Environmental Management Act

Ser No	Section 2 Principles of NEMA	Policies, Plans and Programmes
	a	b
01	(4)(a)(i) *"That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied."*	In preparing and employing combat ready forces, potential impacts affecting the environment are inherent. The potential adverse impact of military activities as a threat to biodiversity can be anticipated during the processes of training of personnel, maintenance, support and deploying military personnel. Guidelines on Environmental Considerations during Military Operations (ECOps) are implemented in territorial as well as regional military operations. The military training areas used for force preparation are managed as multiple-use conservation areas, some of which have been granted additional forms of statutory or non-statutory conservation status. Management plans exist to account for ecological resources on these properties and to harmonise military activities with sensitive ecosystems.
02	(4)(a)(ii) *"That pollution and degradation of the environment are avoided, or, where these cannot be altogether avoided, are minimised and remedied."*	In preparing and employing combat ready forces, potential impacts affecting the environment are inherent. The potential adverse impact of military activities as a source of pollution and environmental degradation can be anticipated during the processes of training of personnel, maintenance, support and deploying military personnel. The system of Integrated Training Area Management (ITAM) integrates military training activities with constraints posed by the natural environment. ITAM presents guidelines for managing the environmental impacts of such activities on the environment in compliance with regulatory obligations. It also provides guidelines for retaining the required military characteristics of military training areas through measures of management. It is a management tool, the principles of which are yet to be established for implementation. Guidelines on ECOps are implemented in territorial as well as regional military operations. The potential of projects, products, processes, services or activities, as elements of support, as a source of pollution can be anticipated and managed during the processes of acquisition, utilisation or operation, maintenance or support until and beyond decommissioning or disposal.

Ser No	Section 2 Principles of NEMA	Policies, Plans and Programmes
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03	(4)(a)(iii) *"That the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied."*	In preparing and employing combat ready forces, potential impacts that affect landscapes and cultural heritage sites are inherent. Landscapes and sites of cultural significance are located on various Defence controlled properties. This provides a powerful imperative to acknowledge these resources in the national interest. Various sites, located on Defence controlled properties, have been awarded statutory and non-statutory conservation status such as national monuments, cultural conservation areas and SA Natural Heritage Sites. Measures for the management and protection of these sites are implemented inclusive of the associated process of policy development. The DOD is bound by international legislative provisions regarding the protection of national and world heritage. Furthermore, the guidelines for ECOps, which are implemented in territorial as well as regional military operations, will apply to acknowledging cultural resource prior or during employing forces.
04	(4)(a)(iv) *"That waste is avoided, or, where it cannot be altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner."*	In providing and employing combat ready forces, potential impacts that effect the environment are inherent. The potential adverse impacts of military activities and exercises as a source of waste generation can be anticipated during the processes of training of personnel, maintenance, support and deploying military personnel. The potential of projects, products, processes, services or activities as a source of waste can be anticipated during the processes of acquisition, utilisation or operation, maintenance or support until and beyond decommissioning or disposal. Up to 1991, concession was granted to the DOD for the disposal of obsolete ammunition at sea. At present, the disposal of any solid waste at sea is prohibited by the London Convention (1972), to which South Africa is a signatory. Policy development by the DOD explores alternative options for disposal of obsolete ordnance in compliance with the guidelines of the International Maritime Organisation (IMO). The development of contemporary Defence policy on integrated waste management (IWM) is conducted consistent with national objectives set by the Department of Water Affairs and Forestry (DWAF) and in consultation with private enterprise. The most profound account of solid waste issues associated with providing forces is that of the accumulation of unexploded ordnance as well as the remains of discharged ammunition on military training areas. Policy development for clean-up of training areas is conducted in consultation with the responsible authorities in defence, South African Police Service (SAPS) expertise, environmental Non-governmental Organisations (NGO's) and neighbouring communities. Procedures for IWM on deployment are in development for consideration during pre-mobilisation for implementation during intervention, stabilisation and demobilisation phases of operations.

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12	(4)(e) "Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle."	Environmental health and occupational health and safety (OHS) considerations, is entrenched in policies governing provide, support and employ forces. A DOD Environmental Health Service capacity presiding over issues concerning environmental health, a DOD OHS capacity, addressing all OHS issues and a DOD Environmental Services capacity which addresses MIEM have evolved into distinct functions in the DOD. These three functions, despite their defined distinction, have supplemented and complemented each other in the past. Policy development toward environmental health and safety consequences in the life cycle of systems has commenced and requires further endeavour to ensure implementation. Furthermore, a pilot initiative has commenced to develop standard operating procedures for the safety, health and environmental consequences associated with military exercises on training areas. A Standing Liaison Forum (SLF) ensures co-ordination between these functions.
13	(4)(f) "The participation of all I&AP in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills & capacity necessary for achieving equitable and effective participation, and participation by vulnerable & disadvantaged persons must be ensured."	In the spirit of healthy civil-military relations and the constitutional order, the DOD is compelled to promote the participation of all sectors of the society, which is served during the process of planning military activities. For regional operations beyond national borders, a Status of Forces Agreement (SOFA) or multi-national agreements are forged according to which military intervention will be conducted. The guidelines on ECOps acknowledge liaison with environment related interested and affected parties (I&AP) as part of environmental support during operations.
14	4)(g) "Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes all forms of knowledge, including traditional and ordinary knowledge."	In the spirit of healthy civil-military relations and the constitutional order, the DOD is compelled to take into account the interests, needs, norms and values of I&AP in all sectors of the society during the process of decision-making. This principle of NEMA is consistent with the philosophy of the DOD concerning civil-military relations in which the military is subject to the standards, norms and values dictated by civil society. Environmental reporting will provide public access to relevant information concerning the environmental performance of the department. For regional operations beyond national borders, SOFAs or multi-national agreements are signed according to which military intervention will be conducted. The guidelines on ECOps acknowledge liaison with environment related I&AP, as part of environmental support during operations.

Source: RSA: DOD (2007)