



COLLEGE OF LAW AND MANAGEMENT STUDIES
SCHOOL OF LAW

**A critical analysis of the legal framework to deter illegal, unreported and unregulated
fishing in South Africa's maritime zones**

Submitted by:
Sinduja Bhana
215023447

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DECLARATION REGARDING ORIGINALITY

I, Sinduja Bhana declare that *A critical analysis of the legal framework to deter illegal, unreported and unregulated fishing in South Africa's maritime zones*:


A. Is my own original work, except in the circumstance where acknowledgements indicate otherwise.

B. Has not been submitted for any degree or examination at any other university.

C. All sources that have been used are footnoted or otherwise acknowledged by full references.

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Date: 23/08/2020

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LIST OF ACRONYMS

ACAP	Agreement on the Conservation of Albatrosses and Petrels
AEWA	Agreement on the Conservation of African-Eurasian Migratory Waterbirds
AIS	Automatic identification system
BCC	Benguela Current Convention
BCLME	Benguela Current Large Marine Ecosystem
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CCSBT	Commission for the Conservation of Southern Bluefin Tuna
CDS	Catch Documentation Schemes
CITES	Convention on International Trade of Endangered Species
CMS	United Nations Convention on Migration of Species
COFI	Committee on Fisheries
CoP	Conference of the Parties meeting
CPC	Contracting party and cooperating non-contracting party
DAFF	Department of Agriculture, Forestry and Fisheries
DDG	Deputy Director General
DEAT	Department of Environmental Affairs and Tourism
ECA	Environment Conservation Act
EEZ	Exclusive economic zone
E-logbook	Electronic fisheries logbook
EU	European Union

FAD	Fish Aggregating Device
FAO	Food and Agricultural Organisation of the United Nations
FIP	Forward inspection point
FMC	Fisheries monitoring centre
FPV	Fishery protection vessel
GDP	Gross domestic product
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICG	Intersessional Correspondence Group
ICM	Integrated Coastal Management Act
IOC	Intergovernmental Oceanographic Commission
IOESA	Atlantic turtles, Indian Ocean South East Asian Marine Turtles, Birds of Prey and Sharks
IOMOU	Indian Ocean Memorandum of Understanding on Port State Control
IONS	Indian Ocean Naval Symposium
IORA	Indian Ocean Rim Association
IOTC	Indian Ocean Tuna Commission
IPNLF	International Pole & Line Foundation
IPOA-IUU	United Nations International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated fishing
IPV	In shore patrol vessel
IUU fishing	Illegal, unreported and unregulated fishing
Lomé Charter	African Charter on Maritime Security and Safety and Development in Africa
MCS	Monitoring, control and surveillance

MDGs	Millennium Development Goals
MLRA	Marine Living Resources Act
MLRF	Marine Living Resources Fund
MOU	Memorandum of understanding
MPA	Marine Protected Area
MSC	Marine Stewardship Council
MSP	Marine spacial planning
MSY	Maximum sustainable yield
NDA	National Development Agency
NDP	National Development Plan
NEMA	National Environmental Management Act
NEPAD	New Partnership for Africa's Development
NGO	Non-governmental organisation
OECD	Organisation for Economic Cooperation and Development
OEEC	Organisation for European Economic Co-operation
OPV	Offshore patrol vessel
PIPO	Port-in-port-out
PSM	Port State Measures
PSMA	Agreement on Port State Measures
PSS	Processing statement system
RFA	Responsible Fisheries Alliance
RFMO	Regional Fisheries Management Organisation
RO	Royal Ordinance on Fisheries
SACU	Southern African Customs Union

SADC	Southern African Development Community
SADSTIA	South African Deep-Sea Trawling Industry Association
SAMSA	South African Maritime Authority
SAPFIA	South African Pelagic Fishing Industry Association
SBT	Southern Bluefin Tuna
SDG	Sustainable Development Goal
SEAFO	South East Atlantic Fisheries Organisation
SIOFA	Southern Indian Ocean Fisheries Agreement
SISO	Scheme of International Scientific Observation
SPRFMO	South Pacific Regional Management Organisation
SWIOFC	South West Indian Ocean Fisheries Commission
TAC	Total Allowable Catch
The Code	Code of Conduct for Responsible Fisheries
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environmental Programme
UNFSA	United Nations Fish Stocks Agreement
USAID	United States Agency for International Development
UVI	Unique Vessel Identifier
VGCDs	Voluntary Guidelines for Catch Documentation Schemes
VGFSF	Voluntary Guidelines for Flag State Performance
VMS	Vessel Monitoring System

WTO

World Trade Organisation

WWF

World Wide Fund for Nature

ABSTRACT

Illegal, unreported and unregulated fishing (IUU fishing) is a significant threat to marine biodiversity and ecosystems globally. Despite efforts to manage fishery stocks, including conservation efforts, IUU fishing undermines these efforts. It is predominantly in the instance of weak enforcement frameworks that makes room for exploitation of marine resources and the coastal State being prone to IUU fishing within their maritime zones.

This dissertation examines IUU fishing in South Africa's maritime zones. The analysis considers South Africa's framework to deter IUU fishing which include global instruments to which South Africa holds obligations. These obligations include providing effective domestic legal and policy frameworks. South Africa's framework is then compared to the Thailand's effective fisheries framework. Thailand's framework has been constituted as effective by the Ministry of Foreign Affairs of the Kingdom of Thailand due to the presence of four factors in the framework and due to the action taken in accordance with these factors: fishery and fleet management, monitoring, control and surveillance (MCS) and traceability, adequate law enforcement and international cooperation. This comparison considers these factors and aims to point out any shortcomings in South Africa's framework. A brief analysis of Senegal's ineffective fisheries framework is contrasted to point out what is needed to be worked on to ensure a successful framework for the deterrence of IUU fishing. Finally, considering the four factors in Thailand's fisheries framework a discussion of the effectiveness of the South African framework for deterrence of IUU fishing is provided and recommendations to address the shortcomings that are identified in South Africa's framework to deter IUU fishing, including MCS shortcomings, are proposed.

This study ultimately seeks to determine whether South Africa's framework for deterrence of IUU fishing is effective. The analysis includes incidents of IUU fishing in South Africa's maritime zones, discussion of challenges and provides concluding remarks of relevant global instruments, domestic legislation and initiatives. In this manner the analysis provides a breakdown of these instruments, incidents, domestic legislation and initiatives to provide a better understanding and determine effectiveness in accordance with the four factors.

1. INTRODUCTION

1.1. Introduction and background

The following hypothetical scenario, adopted from various media reports, illustrates how illegal, unreported and unregulated fishing (IUU fishing) may occur in South Africa's maritime zones and lends to the understanding of what this dissertation aims to achieve: A fleet of ten Taiwanese vessels entered South Africa's exclusive economic zone (EEZ) without a valid foreign fishing licence. Illegal fishing gear including driftnets were used to fish illegally. Navigation signals and tracking beacons were shut down by the Taiwanese vessels. This was done in order to remain incognito and go unnoticed by the South African authorities. However, once these beacons were shut down the South African authorities were notified, and South Africa's monitoring, control and surveillance (MCS) vessels headed out to sea to seize the illegal vessels. All ten vessels attempted to flee immediately. These vessels had dispersed in opposite directions in South Africa's large EEZ making it difficult to seize all of them. Eventually, only two of the ten vessels were seized and brought to the harbour. Whilst searching the vessels, illegal fishing gear and marine living resources to the value of R10 million were found. The crew was charged with the offences of IUU fishing, environmental contraventions and use of illegal fishing gear in South Africa's maritime zones. They had initially denied committing any of the offences that they were charged with but eventually they confessed and pleaded guilty to the offences. The crew had also confessed to selling their catch to a local fisheries company in Durban. They were consequently charged for offences in accordance with the Marine Living Resources Act (MLRA).¹ Each vessel was fined R200 000 respectively. Furthermore, were charged R50 000 for non-compliance with the law, this was in relation to their attempt to escape, and a R1.3 million fine in relation to environmental contraventions. However, the total cost of this incident in South Africa's maritime zones is estimated to be worth R50 million.

¹ Marine Living Resources Act 18 of 1998 was amended by the Marine Living Resources Amendment Act 5 of 2014.

This incident demonstrates the need to have a well-constructed legislative framework followed with effective enforcement initiatives. This is critical to ensure a sustainable blue economy.

(a) The concept of sustainability

It is crucial to understand the concept and the need for sustainability in order to fully comprehend and combat IUU fishing. Sustainability embodies the concept of necessity.² These necessities are essential for our survival such as food and water.³ It is trite that society's existence has been dependent on sustainable ecological systems which provides these human necessities as well as the livelihoods of many individuals.⁴ Four factors have been identified to contribute to the breakdown of civilisations: including, 'environmental problems and society's response to its environmental problems'.⁵ Sustainability therefore, ensures the welfare of human beings by three primary activities: 'economic growth, social development and environmental protection'.⁶ Therefore, essentially the concept of sustainability is ensuring there is a balance in utilising these necessities, which are essential for our survival, and preserving the environment which provides these necessities by carrying out these three primary activities.⁷

The concept of sustainability was first introduced in 1987 in the Brundtland Report⁸ and is used in several global treaties including the Rio Declaration, Agenda 21, the Millennium Development Goals (MDGs), the Johannesburg declaration and Johannesburg Plan of Implementation.⁹ In accordance with the Rio Declaration 'in order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it'.¹⁰ The Johannesburg Declaration and Plan of Action recognises the concept of sustainability as 'our responsibility to one another, to the greater community of life and of our children'.¹¹

² K Bosselmann *The Principle of Sustainability, Transforming Law and Governance* (2008) 32.

³ *Ibid.*

⁴ *Ibid.*

⁵ J Diamond *Collapse: How Societies Choose to Fail or Succeed* (2005) 15.

⁶ USLegal 'Sustainable Development Law and Legal Definition' available at <https://definitions.uslegal.com/s/sustainable-development/>, accessed on 21 November 2019.

⁷ *Ibid.*

⁸ *Ibid.*

⁹ See note 2 at 35.

¹⁰ *Ibid.*

¹¹ Johannesburg Declaration on Sustainable Development, 4 September 2000, UN Doc. A/Conf.199/20, 2002.

Ensuring sustainability of the oceanic environment is therefore both a necessity and responsibility that all nations share. Practices such as IUU fishing cause environmental repercussions. These include the destruction of biodiversity and ecosystems as IUU fishing causes a decline in fishing stocks. According to the international non-profit organisation Sea Shepherd, around 20-50 percent of the world's fishing stocks is subject to the IUU fishing catch.¹² Sustainability and protection of the ocean consists of the requirement of sustainable fishing which is ensuring there are enough oceanic species in our oceans in the present as well as for future generations to approach. It is a necessity for the conservation of the ocean's biodiversity and for individuals who rely on their daily livelihoods by utilising the ocean's resources.¹³

(b) Defining IUU fishing

IUU fishing comprises of the words 'illegal, unreported and unregulated'. It is important to understand the definition of each word, although they stand as different concepts, each concept consists of activities which, often, are linked in a single event and constitute of the act, IUU fishing.

Illegal fishing refers to the contravention of fishing laws and regulations of a state or the contravention of fishing rules in accordance with international law.¹⁴ These occurrences takes place when fishing vessels enter the maritime zones of a coastal state without a valid licence, such as those held by foreign or domestic fishing vessels which is a requirement under that States law to enter the maritime zones of that State. For example, in terms of legislation such as South Africa's MLRA¹⁵ it is a requirement for all fishing vessels to possess a licence to fish. However, illegal fishing may also occur by licenced vessels which may engage in, *inter alia*, the activity of fishing beyond their catch limits or using prohibited fishing gear. Illegal fishing results in unfair competition, as illegal seafarers avoid all fees for licences and in some instances carry out fishing activities under false documentation. Illegal fishing also has an effect on the population of fish stocks as illegal seafarers do not bind themselves to the fishing laws and policies by relevant authorities. In these instances, illegal seafarers may bring in illegal vessels in maritime zones, rivers and inland waters of a coastal state and fish beyond the

¹² Sea Shepherd 'About IUU fishing' available at <https://seashepherd.org/campaigns/iuu-fishing/about-iuu-fishing/>, accessed on 14 October 2019.

¹³ Marine Stewardship Council 'What is sustainable fishing' available at <https://www.msc.org/what-we-are-doing/our-approach/what-is-sustainable-fishing>, accessed on 18 April 2019.

¹⁴ InforMEA 'Illegal fishing' available at <https://www.informea.org/en/terms/illegal-fishing>, accessed on 22 November 2019.

¹⁵ Marine Living Resources Act 18 of 1998.

set catch limit by relevant authorities. These illegal seafarers also fish in marine conservation areas, may use forbidden fishing gear or catch marine species which are protected and prohibited from being fished.¹⁶

Unreported fishing refers to fishing activities which are not reported or misreported to relevant authorities such as reporting the false number of fish which has been caught.¹⁷ A misreport or a catch which is not reported may even take place by vessels which have legal licences to fish within the maritime zones in question. This influences the count of fishing stocks estimates and in return has an effect on the management of fishing populations as the reported estimates are used accordingly by relevant authorities to determine catch limits for seafarers. Therefore, fishery management mechanisms and catch limits set by the relevant authorities become ineffective to ensure sustainable fishing.¹⁸

Unregulated fishing refers to fishing by seafarers in maritime zones where no applicable management mechanisms or conservation plans are enforced. Fishing takes place in an approach that is inconsistent with the State's obligation to conserve marine resources under international law, in that State's maritime zones where the catch is being fished. Unregulated fishing also occurs in the instance where Regional Fisheries Management Organisations (RFMOs) monitor and manage fishing areas however, vessels fish in these areas without observing the conservation regimes of this area in accordance with the applicable RFMOs. Unregulated fishing may also include seafarers who fish without a flag or the flag of a state which is not party to these RFMOs.¹⁹

IUU fishing furthermore, consists of an extensive number of activities, in addition to those discussed above including, *inter alia*, operating without a valid vessel monitoring system (VMS), fishing for endangered species, entering unauthorised ports, fishing without an observer on board, the overfishing of the maximum allowable catch and illegal transshipping.

Further repercussions of IUU fishing include the destruction of marine habitats, depletion of fishing stocks, reduction in biodiversity, revenue loss, an uncertain plight in food security, has a negative economic impact on the livelihoods of those who rely on the fishing

¹⁶ FAO 'What is IUU fishing' available at <http://www.fao.org/iuu-fishing/background/what-is-iuu-fishing/en/>, accessed on 30 October 2019.

¹⁷ Alen Soldo 'Evolution and realities of the illegal fishing' available at <http://www.europarl.europa.eu/document/activities/cont/201409/20140925ATT89814/20140925ATT89814EN.pdf>, accessed on 14 October 2019.

¹⁸ FAO 'What is IUU fishing' available at <http://www.fao.org/iuu-fishing/background/what-is-iuu-fishing/en/>, accessed on 30 October 2019.

¹⁹ *Ibid.*

industry as a source of income, impacts on by-catch species, sources ghost-fishing²⁰, contributes to overfishing, threatens management and conservation regimes, undermines laws and policies related to fisheries and results in disastrous effects when driftnets and bottom sea trawlers are used including detrimental effects on non-commercial marine species and impeding the pathways of other vessels including pleasure craft.²¹ IUU fishing may also be the underlying cause of maritime piracy and transnational organised crime.²²

(c) Understanding the concept of IUU fishing

IUU fishing is considered to be a low risk yet a high rewarding profit activity.²³ IUU fishing is driven solely by its high profit rewards.²⁴ The reality is that where there are large profit gains available, the need for such profit gain is despairingly put ahead of sustainability of the marine environment. Weak enforcement frameworks make IUU fishing a low risk activity. IUU fishing occurs in the high seas, EEZ, territorial sea of a coastal state and other inland waters. There are several IUU fishing ‘hotspots’ globally within these maritime zones and inland waters, which dependant on weak enforcement frameworks and on the availability of fishing stocks within those regions. These ‘hotspots’ shift in accordance with these factors.²⁵

IUU fishing exists in both the small-scale fishing sector and the commercial fishing sector. IUU fishing is furthermore carried out by both local and foreign seafarers in South Africa’s maritime zones. In the hypothetical scenario above IUU fishing by foreign seafarers was illustrated however, the threats imposed by local seafarers engaging in IUU fishing including significant economic changes are equally important.²⁶ Local seafarers may engage in IUU fishing whilst carrying out large-scale fishing activities and small-scale fishing

²⁰ NOAA ‘What is ghost fishing’ available at <https://oceanservice.noaa.gov/facts/ghostfishing.html>, accessed on 22 November 2019. ‘Ghost-fishing sources ghost gear which is any discarded, lost, or abandoned, fishing gear in the marine environment. This gear continues to fish and trap animals, entangle and potentially kill marine life, and act as a hazard to navigation’.

²¹ FAO ‘Introduction’ available at <http://www.fao.org/3/t0502e/T0502E01.htm>, accessed on 22 July 2020.

²² FAO ‘Links between IUU Fishing and other crimes’ available at <http://www.fao.org/iuu-fishing/background/links-between-iuu-fishing-and-other-crimes/en/>, accessed on 14 October 2019.

²³ U4 ‘Illegal, unreported and unregulated fishing and corruption’ available at https://knowledgehub.transparency.org/assets/uploads/helpdesk/392_Illegal__unreported_and_unregulated_fishing_and_corruption.pdf, accessed on 15 October 2019.

²⁴ Sea Shepherd ‘About IUU fishing’ available at <https://seashepherd.org/campaigns/iuu-fishing/about-iuu-fishing/>, accessed on 14 October 2019.

²⁵ PEW ‘FAQ: Illegal, Unreported, and Unregulated Fishing’ available at <https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2013/08/27/faq-illegal-unreported-and-unregulated-fishing>, accessed on 14 October 2019.

²⁶ O Drammeh ‘Illegal, Unreported & Unregulated Fishing In Small-Scale Marine And Inland Capture Fisheries’ available at <http://www.fao.org/3/Y3274E/y3274e09.htm>, accessed on 6 July 2020.

activities.²⁷ However, local seafarers usually engage in IUU fishing in a manner which is easily accessible as marine resources are usually unrestricted, unreported and unregulated. There is often no management of fisheries or adequate MCS in these fishing grounds. Local and/or small-scale fishing activities generally occurs within the territorial waters of a State or rivers and inland waters as IUU fishing usually takes place by individuals who want to improve their income.²⁸

IUU fishing has been addressed through global and domestic frameworks which consists of mechanisms for deterrence of IUU fishing. However, despite these efforts that have been put in place to deter IUU fishing, manage marine conservation and biodiversity in accordance with these frameworks, such as the allocation of Marine Protected Areas' (MPAs) and MCS of vessels which enter the maritime zones of a State, IUU fishing continues to undermine these efforts. This is due to the act being an increasingly common occurrence in the maritime zones of many states and consequently being difficult to control. Major gaps within these frameworks may also prevent deterrence of IUU fishing. MPAs are important mechanisms used globally amongst parts of the oceans to ensure conservation and protection of biodiversity and ecosystems in these areas. MPAs are included in the marine conservation programs and domestic legislation of many coastal states.²⁹ The deterrence of IUU fishing is also a low priority amongst many States due to factors such as a lack of political will and unavailability of resources which make it seemingly difficult to ensure deterrence of IUU fishing.³⁰

The United Nations (UN) is an example of a global instrument which takes initiative and ensures an effort is being made to deter IUU fishing. In 2017 at its 72nd session, the UN General Assembly had declared the 5th of June as the *International Day for the Fight against IUU fishing*.³¹ The significance of this day is to draw attention to the disastrous effects of IUU fishing and address its impact by ensuring sustainability of marine resources and ongoing efforts amongst States and organisations to deter the phenomenon.³²

²⁷ *Ibid.*

²⁸ *Ibid.*

²⁹ KM Gjerde 'Towards a Strategy for High Seas Marine Protected Areas' available at https://cmsdata.iucn.org/downloads/towards_a_strategy_for_hsmmpas.pdf, accessed on 14 October 2019.

³⁰ Sea Shepherd 'About IUU fishing' available at <https://seashepherd.org/campaigns/iuu-fishing/about-iuu-fishing/>, accessed on 9 October 2019.

³¹ UN 'International Day for the Fight against Illegal, Unreported and Unregulated Fishing 5 June' available at <https://www.un.org/en/events/illegalifishingday/background.shtml>, accessed on 22 November 2019.

³² *Ibid.*

Fisheries are relied upon as an important source of sustenance for human consumption for more than, an estimated, 3 billion people globally³³ and is also relied upon by an estimated 520 million people worldwide as a source of income.³⁴ According to CEMLAWS Africa, in 2014 a surplus of around thirty-seven million people were recruited in the fisheries sector.³⁵ Fisheries is also a resource that has been significantly declining. In accordance with the Food and Agriculture Organisations (FAO) analysis of assessed commercial fish stocks which outlined the share of fish stocks within biologically sustainable levels, it was evident that there was a substantial decrease, from 90 percent in 1974 has dropped to 69 percent in 2013. Furthermore, according to the FAO's 2018 report on the state of the World Fisheries and Aquaculture 33.1 percent of fisheries stocks are overfished globally.³⁶ According to the 2016 State of the World Fisheries and Aquaculture more than 30 percent of known marine species are overexploited whilst a further 60 percent are fished at their maximum sustainable yield (MSY).³⁷

IUU fishing is a major factor which contributes to the decline in fishing stocks. Recently IUU fishing across the ocean globally has been rising. This has consequently caused economic repercussions. According to a new study from the University of British Columbia which has used data derived from 'the Sea Around Us project', IUU fishing has resulted in an overall global economic loss of around US\$26 billion to US\$50 billion.³⁸ Furthermore, the study indicated an overall global loss in tax revenue of an estimated US\$2 billion to US\$4 billion.³⁹ The study further examined economic impacts of IUU fishing in continents such as Africa and Asia. In Africa the economic impact has appeared to be between US\$8 billion to US\$14 billion with an estimated loss in tax revenue of between US\$800 million to US\$1.5 billion.⁴⁰

³³ The Ocean Conference 'Concept Paper Partnership dialogue 4: Making fisheries sustainable' available at <https://sustainabledevelopment.un.org/content/documents/14418Partnershipdialogue4.pdf> accessed on 14 October 2019.

³⁴ Sea Shepherd 'About IUU fishing' available at <https://seashepherd.org/campaigns/iuu-fishing/about-iuu-fishing/>, accessed on 14 October 2019.

³⁵ CEMLAWS Africa 'It's more than fish: Livelihoods, Gender Empowerment and SDGs at Serious Risk' available at www.cemlawsafrica.com, accessed on 21 March 2019.

³⁶ FAO '2018 State of the World Fisheries and Aquaculture' available at <http://www.fao.org/3/i9540en/i9540en.pdf>, accessed on 4 July 2020.

³⁷ FAO '2016 The State of the World Fisheries and Aquaculture' available at <http://www.fao.org/3/i9540en/i9540en.pdf>, accessed on 4 July 2020.

³⁸ Aaron Orlowski 'IUU economic estimates climb as high as USD 50 billion in new study' available at <https://www.seafoodsource.com/news/environment-sustainability/iuu-economic-estimates-climb-as-high-as-usd-50-billion-in-new-study>, accessed on 4 July 2020.

³⁹ *Ibid.*

⁴⁰ *Ibid.*

Aspects of a State's framework for the deterrence of IUU fishing within the maritime zones of that State may consist of shortcomings within the framework which, therefore, interferes with ensuring IUU fishing is successfully deterred within that State's maritime zones. The law enforcement measures including sanctions imposed by states globally, as a result of the commission of IUU fishing, are found to be weak and ineffective to ensure the deterrence of IUU fishing. According to Agnew, *inter alia*, increased sanctions is one of the solutions to eliminate IUU fishing.⁴¹ Other shortcomings identified which cause a setback for the deterrence of IUU fishing include, the lack of effective MCS systems, lack of information exchange and sharing of resources amongst States and international bodies.⁴² Seafarers use tactics such as the re-flagging of vessel's, changing the vessels name, and intelligence sharing to carry out IUU fishing activities.⁴³ IUU fishing may also be linked to crimes such as money laundering, trafficking of drugs, arms and tax evasion.⁴⁴

It is evident that IUU fishing has detrimental social, economic and environmental effects within a State. Furthermore, IUU fishing undermines efforts put in place for deterrence of IUU fishing. It is, therefore, crucial that the State has an effective framework for the deterrence of IUU fishing. According to Agnew's study on IUU fishing trends, it was found that in instances where there are clearly weak governance frameworks, especially in developing nations, IUU fishing is a common occurrence.⁴⁵ Population growth globally is increasing and therefore, there is a substantial increase in the demand for fisheries globally. However, most fishing stocks are currently depleted or close to depletion therefore are unable to generate their MSY.⁴⁶ The significance of deterring IUU fishing, or if possible to eliminate it completely, is profound as the effects of this activity are substantial and it may have a severe impact on the environment as we know it.

⁴¹ Agnew DJ, Pearce J, Pramod G, Peatman T, Watson R 'Estimating the Worldwide extent of illegal fishing' (2009) Vol. 4 No. 2, *PLoS ONE* 5.

⁴² PEW 'FAQ: Illegal, Unreported, and Unregulated Fishing' available at <https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2013/08/27/faq-illegal-unreported-and-unregulated-fishing>, accessed on 14 October 2019.

⁴³ Baird R 'Illegal, unreported and unregulated fishing: an analysis of the legal, economic and historical factors relevant to its development and persistence' (2004) Vol.5 *SemanticsScholar* 2.

⁴⁴ PEW 'FAQ: Illegal, Unreported, and Unregulated Fishing' available at <https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2013/08/27/faq-illegal-unreported-and-unregulated-fishing>, accessed on 14 October 2019.

⁴⁵ Agnew DJ, Pearce J, Pramod G, Peatman T, Watson R 'Estimating the Worldwide extent of illegal fishing' (2009) Vol. 4 No. 2, *PLoS ONE* 5.

⁴⁶ *Ibid.*

1.2 Rationale for the study

Deterrence is essentially the action or fact of stopping individuals from doing something.⁴⁷ The deterrence of IUU fishing is crucial as IUU fishing is a major contributor to social, economic and environmental upheaval in nations globally due to aspects such as the consequential decline in fishing stocks. The deterrence of IUU fishing therefore requires an effective framework to ensure fisheries continue to contribute to the continued progression of South Africa. However, incidents in recent years such as the Lu Huang Yuan Yu 186 incident and the 2016 Chinese vessel incident, discussed in chapter three, indicate that IUU fishing still occurs in South Africa's maritime zones. In many instances one of the crucial issues faced is that seafarers who engage in IUU fishing escape easily without facing apprehensions. This study focuses on the analysis of the legal framework to deter IUU fishing within South Africa's maritime zones.

Global instruments which are applicable to South Africa are analysed and furthermore, the domestic framework for deterrence of IUU fishing in South Africa's maritime zones which consists of relevant domestic legislation is analysed. The purpose of this analysis is to determine whether the framework for deterrence of IUU fishing is effective. Effectiveness is determined by considering whether four factors are present in South Africa's framework and necessary actions are being taken in accordance with these factors. These factors are: (i) fishery and fleet management; (ii) MCS and traceability; (iii) adequate law enforcement and (iv) international cooperation. These factors are present in Thailand's framework and the State's framework is considered effective by the Ministry of Thailand due to the presence of these factors.⁴⁸ These factors are expanded on and explained in chapter four. The framework for deterrence of IUU fishing in Senegal is also briefly compared with South Africa's framework for deterrence of IUU fishing. This comparison aims to determine whether the four factors are present in South Africa's framework and accordingly determine shortcomings within South Africa's framework. In circumstances where shortcomings exist, such as shortcomings in MCS, recommendations are made.

⁴⁷ Cambridge Dictionary 'deterrence' available at <https://dictionary.cambridge.org/dictionary/english/deterrence>, accessed on 22 November 2019.

⁴⁸ Ministry of Foreign Affairs of Kingdom of Thailand 'Top Stories: EU Announced the Lifting of a Yellow Card for Thailand' available at <http://www.mfa.go.th/main/en/news3/6885/98154-EU-Announced-the-Lifting-of-a-Yellow-Card-for-Thai.html>, accessed on 6 July 2020.

1.3 Aims and objectives of the research

This study analyses the effectiveness of South Africa's legal framework for deterrence of IUU fishing. The notion of effectiveness is essentially being successful in providing a desired result.⁴⁹ The framework for deterrence of IUU fishing is analysed to determine the presence of the four factors identified above by considering external factors such as incidents of IUU fishing that have occurred in South Africa's maritime zones and statistics, various global instruments which are applicable to South Africa's framework, domestic legislative provisions and initiatives being implemented for deterrence of IUU fishing. The analysis considers IUU fishing activities carried out by both foreign and local seafarers in South Africa's maritime zones. The instruments will be discussed by providing a description and purpose of each instrument, and analysis of the provisions with regard to deterrence of IUU fishing. The discussion considers South Africa's implementation of these instruments, and the shortcomings and challenges of that instrument.

In the analysis of South Africa's domestic framework, statistics and real-life incidents that have taken place in South Africa's maritime zones are provided to portray the extent of IUU fishing in South Africa's maritime zones and point out shortcomings in the framework such as the fines imposed for the commission of IUU fishing. These incidents and statistics are also used as external factors from the framework to determine effectiveness in accordance with the factors. This lends to the questioning of why these incidents occur and determining whether it is due to gaps in the framework such as enforcement and implementation. Relevant legislative provisions from South Africa's environmental legislation are pointed out and then discussed. The discussion include links between these provisions and the commission of IUU fishing and cases. Domestic initiatives such as Operation Phakisa are also discussed in a similar manner to the global instruments. Thailand's and Senegal's framework for deterrence of IUU fishing is briefly discussed and analysed for the purpose of providing a comparison to South Africa's framework to furthermore determine shortcomings. The analysis of Senegal's framework also aims to highlight aspects of the framework which may be improved. Initiatives that are being taken by these nations and relevant legislative provisions are discussed. Thailand's framework is then used as a comparative means to South Africa's framework in the concluding chapter.

⁴⁹ Merriam Webster 'effective' available at <https://www.merriam-webster.com/dictionary/effective>, accessed on 22 November 2019.

The factors: fishery and fleet management, MCS and traceability, adequate law enforcement and international cooperation which are encompassed in Thailand's framework and which constitute the framework as 'effective' are discussed in relation to South Africa's framework in the concluding chapter. The analysis in the previous chapters are considered to determine the presence of these factors in South Africa's framework. Furthermore, any shortcomings within the South African framework are also discussed in the concluding chapter where recommendations are also made.

1.4 Parameters and limitations of the study

This dissertation will specifically focus on the analysis of the legal framework to deter IUU fishing in South Africa's maritime zones including the EEZ and territorial sea. Therefore, this dissertation is not concerned with the maritime zone of the high seas or the legal framework for deterrence of IUU fishing within the high seas. Furthermore, the legal framework for the deterrence of IUU fishing of other nations falls beyond the scope of this work, save for the framework of Thailand and Senegal which is used as a comparison. Thailand's framework is used as it consists of the necessary factors crucial for an effective framework for deterrence of IUU fishing. Senegal which has an ineffective fisheries framework is used to point out aspects of a framework which make it ineffective. Thus, this dissertation focuses solely on the framework for deterrence of IUU fishing in South Africa's maritime zones and aims to establish if the South African framework for deterrence of IUU fishing is effective.

1.5 The research problem and key research questions

The principal question is whether South Africa has a comprehensive and effective framework for deterrence of IUU fishing. In order to answer this question, the following are considered:

- What is South Africa's current framework to deter IUU fishing?
- How effective is South Africa's framework for the deterrence of IUU fishing in South Africa's maritime zones?
- What are the shortcomings in South Africa's framework for deterrence of IUU fishing?
- What is the IUU fishing deterrence framework of Thailand and how effective is this framework in comparison to South Africa's framework?

- What initiatives or laws from Thailand's framework which contributes to successful deterrence of IUU fishing can be implemented in South Africa's framework?
- What is the framework for deterrence of IUU fishing in Senegal and what aspects of the framework hinders successful deterrence or what can be contributed to the framework for successful deterrence?
- What can be done to address any shortcomings in South Africa's framework to deter IUU fishing?

1.6 Research methodology

This dissertation consists of doctrinal analysis. Primary and secondary documentary sources are used. Primary sources include relevant statutes, case law and international treaties and conventions. Secondary sources consist of books, newspaper articles, journal articles and internet sources.

A comparative analysis is used in this dissertation and effectiveness of the South African framework to deter IUU fishing is measured against the following factors: fishery and fleet management, MCS and traceability, adequate law enforcement, and international cooperation.⁵⁰ These factors are encompassed in Thailand's framework for the deterrence of IUU fishing and with the existence of these factors in the framework Thailand is considered to be one of the most effective systems for combatting IUU fishing and which should be used as a model for other States.⁵¹

1.7 Architecture of the dissertation

This dissertation consists of five chapters including the current chapter. Chapter two will provide a brief history of the scale and spread of IUU fishing and an analysis of the global instruments which are applicable to South Africa and which contribute to deterrence of IUU fishing within South Africa's maritime zones.

Chapter three will consider the current state of fisheries within South African maritime zones. Furthermore, this chapter will analyse relevant statutes and relevant provisions of these

⁵⁰ Ministry of Foreign Affairs of Kingdom of Thailand 'Top Stories: EU Announced the Lifting of a Yellow Card for Thailand' available at <http://www.mfa.go.th/main/en/news3/6885/98154-EU-Announced-the-Lifting-of-a-Yellow-Card-for-Thai.html>, accessed on 6 July 2020.

⁵¹ *Ibid.*

statutes pertaining to IUU fishing such as the MLRA.⁵² South Africa's regime for the deterrence of IUU fishing will be analysed in this chapter.

Chapter four will briefly analyse the fisheries framework of Thailand and Senegal. Relevant fisheries laws and policies are referred to and discussed such as Thailand's Royal Ordinance on Fisheries (RO).⁵³ The four factors which constitute the framework as effective and the action being taken in accordance with these factors is discussed in Thailand's analysis. In Senegal's framework issues are pointed out which constitute the legal and policy framework of the State as inadequate. Fisheries statistics and the current state of fisheries within these nations is also discussed.

Finally, chapter five will contain suggestions for shortcomings within the South African framework for deterrence of IUU fishing. These shortcomings will be pointed out in the preceding chapters. Thailand's effective framework to deter IUU fishing will be discussed further and will be adapted to South Africa's framework. The factors which are encompassed in Thailand's framework and used as a measure to determine effectiveness of the South African framework is discussed in this chapter and it is determined whether the South African framework for deterrence of IUU fishing is effective. A conclusion of this dissertation will be provided highlighting the findings made.

⁵² Marine Living Resources Act 18 of 1998.

⁵³ Royal Ordinance on Fisheries, B.E. 2558 of 2015.

2. GLOBAL FRAMEWORK FOR DETERRENCE OF IUU FISHING IN SOUTH AFRICA

2.1 Introduction

IUU fishing is addressed through numerous management instruments globally. These instruments consist of several obligations assigned to nations which are member States to these instruments. Obligations are also assigned to various third parties, independent entities or nations which are not member States of that instrument although that instrument applies to that nation, for instance in the case where an instrument collaborates with a nation through their activities. These obligations focus on cooperation, management of fishing stocks and deterrence of IUU fishing by providing measures such as MCS of fishing activities.

This chapter provides an analysis of South Africa's global framework for deterrence of IUU fishing. The analysis provides a discussion on the instruments which comprises of this framework, the obligations of States in accordance with these instruments, whether these obligations are being adhered to by South Africa and the challenges that exist which hinders the success of these instruments. This is crucial as these instruments have a potential impact on deterrence of IUU fishing in South Africa's maritime zones. The analysis of these instruments will reveal parts of the global framework which contribute to successful deterrence as well as those parts of the framework in which challenges are faced. The analysis also provides clarification on the actions being taken by South Africa to meet the obligations in accordance with these global instruments, what is not being done and hence what can be improved.

(a) Brief history of fishery management and IUU fishing

Fishery management mechanisms have been in abundance for many decades since the expansion of the fishing industry however the effectiveness of these mechanisms for the deterrence of IUU fishing especially on a coastal States EEZ is questionable. More recently, several international organisations and frameworks have drawn significance to IUU fishing and several instruments have listed measures to deter IUU fishing due to the ever-rapid expansion thereof. It is significant to understand the historical development and history of the expansion

of fishery management mechanisms for the deterrence of IUU fishing as well as developing global frameworks to deter the phenomenon as the history of the development of the need for the preservation of resources and management mechanisms has had an impact on IUU fishing even today.

During the fifteenth and sixteenth century there were disputes amongst western States about sovereignty, rights over the ocean and its resources however the Dutch considered the ocean, to be free territory.¹ The doctrine of The freedom of the Sea, contained in a thesis, *Mare Liberum*, of Dutch jurist Hugo Grotius was developed during the seventeenth century and continued to be influential for over 300 years.² The doctrine conceptualised that oceanic resources are endless and will never cease or manifest in extinction.³ During this era minimal deep-sea trawling and fishing took place due to high costs. State sovereignty over coastal waters was also recognised. During the eighteenth century, another Dutch jurist, Cornelius van Bynkerhoek had set out the maxim '*Potestatem terrae finiri, ubi finitur armorum vis*' meaning that the State has jurisdiction and territory over the ocean as far as a cannon could fire.⁴ This maxim drew the fact that up to certain point from the coastline of a State, that State has sovereignty over that part of the ocean and may make use of its economic resources.

During the twentieth century the detection of offshore oil and efficient fishing techniques took place, at a time when coastal State sovereignty over the oceans had expanded. In 1936 the Over-Fishing Conference had taken place where mesh size regulations and size limits for fishing were discussed.⁵ Mesh size regulations and size limits for fish were also discussed at the International Convention of 1937 where mesh sizes were agreed to be 80mm.⁶

The introduction of distant water vessels first took place in the 1950s when fishing remained unregulated.⁷ RFMOs were first introduced by States during the 1970s and 1990s.⁸ During the 1970s the need for conservation, protection and regulation of African nations'

¹ J Bergin *The Short Oxford History of Europe, The Seventeenth Century: Europe 1598-1715* (2001) 198.

² *Ibid.*

³ Ricardo J. Romulo 'Unclos: 'Mare Liberum' or 'Mare Clausum'?' available at <https://opinion.inquirer.net/96462/unclos-mare-liberum-or-mare-clausum>, accessed on 12 May 2019.

⁴ WC Extavour *The Exclusive Economic Zone, A Study of the Evolution and Progressive Development of the International Law of the Sea* (1979) 15.

⁵ *Ibid.*

⁶ O Nakken *Norwegian Spring Spawning Herring and Northeast Arctic COD 100 years of research and management* (2008) 105.

⁷ Alen Soldo 'Evolution and Realities of the Illegal Fishing' available at <http://www.europarl.europa.eu/document/activities/cont/201409/20140925ATT89814/20140925ATT89814EN.pdf>, accessed on 18 May 2019.

⁸ *Ibid.*

oceans was recognised at several regional FAO conferences for Africa, including the Scientific Council for Africa.⁹ In 1971 the OAU Council of Ministers had adopted a resolution on the basis of permanent sovereignty of all African countries to have control over their marine natural resources.¹⁰ The first proposal embodying the concept of an EEZ was in 1972 at the United Nations Sea-Bed Committee.¹¹

Several global management mechanisms and treaties were created by the end of the twentieth century for the purpose of management of fishing populations outside the jurisdiction and the control of coastal nations. Therefore, this left the EEZ of many States in the circumstance of being susceptible to IUU fishing. The world's oceans were enclosed and therefore these mechanisms could not intervene in incidents such as IUU fishing in a coastal States EEZ. IUU fishing had continued to upsurge especially in the EEZ of many of the worlds developing nations. Poor governance, insufficient funds to provide for enforcement and IUU fishing being a low priority for these developing nations means that they are vulnerable to IUU fishing.¹²

During the second half of the twentieth century a market for fishing stocks had emerged and global fishing had expanded resulting in an impetus to take steps to conserve marine resources. During this time multi-lateral treaties had emerged with one of the objectives being the sustainability of marine resources.¹³ A significant development was the adoption of UNCLOS.¹⁴

In 1982 UNCLOS expounded on entitlements, recommendations and obligations of States in conjunction to the utilisation of the world's oceans. UNCLOS forms the basis for conservation of marine resources, living or non- living, of the world's oceans.¹⁵ UNCLOS is also described as 'the Constitution of the oceans'¹⁶ and sets out the legal framework which indicates how all activities on the ocean must be carried out.¹⁷ UNCLOS also provides for

⁹ M Dahmani 'The Fisheries Regime of the Exclusive Economic Zone' (1987) 19.

¹⁰ *Ibid.*

¹¹ See note 9 at 27.

¹² J Christensen *Illegal, Unreported and Unregulated Fishing in Historical Perspective* (2016) 138.

¹³ *Ibid.*

¹⁴ United Nations Convention on the Law of the Sea, 10 December 1982, 3 UNTS 3, 21 ILM 1261, 16 November 1994.

¹⁵ United Nations 'Oceans and the Law of the Sea' available at <https://www.un.org/en/sections/issues-depth/oceans-and-law-sea/>, accessed on 25 May 2019.

¹⁶ FAO 'Illegal, unreported and unregulated fishing' available at <http://www.fao.org/iuu-fishing/international-framework/unclos/en/>, accessed on 21 May 2019.

¹⁷ The Ocean Conference 'Concept paper - Partnership dialogue 4: Making fisheries sustainable' available at <https://sustainabledevelopment.un.org/content/documents/14418Partnershipdialogue4.pdf>, accessed on 23 May 2019.

protection and sustainment of marine ecology and resources, marine scientific research and development as well as marine management and technology.¹⁸ The convention also sets out coastal States obligations to achieve conservation, protection and sustainment of marine resources, these obligations include the coastal State to set limits on the total allowable fishing catch within their EEZ and cooperate by sharing fishing stocks, contiguous areas and conservation of highly migratory and straddling fish stocks.¹⁹

The convention gave rise to many binding and voluntary fishing instruments and organisations addressing the conservation of marine resources such as the FAO.²⁰ These instruments cannot be thoroughly enacted as IUU fishing continues to challenge conservation and management of marine living resources. IUU fishing also persists forcefully in the EEZ of many States and will only be deterred when States satisfy their obligations in accordance with these instruments.

In terms of Article 56, the rights, jurisdiction and duties of the coastal State in the EEZ are prescribed, a coastal State is granted:

‘Sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds, jurisdiction as provided for in the relevant provisions of this convention with regard to the establishment and use of artificial islands, installations and structures, marine scientific research, the protection and preservation of the marine environment, other rights and duties provided for in this convention’.²¹

Commentaries of the scope of IUU fishing indicate that IUU fishing may have led to at least 20 percent of the ocean’s aquatic catch harvest in the final two decades of the twentieth century.²² More recently global instruments have been enforced for the purpose of deterrence

¹⁸ DAFF ‘International Regulations and Obligations’ available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/International-Relations-and-Obligations/conventions>, accessed on 20 May 2019.

¹⁹ The Ocean Conference ‘Concept paper - Partnership dialogue 4: Making fisheries sustainable’ available at <https://sustainabledevelopment.un.org/content/documents/14418Partnershipdialogue4.pdf>, accessed on 23 May 2019.

²⁰ FAO: Illegal, unreported and unregulated fishing, UNCLOS’ available at <http://www.fao.org/iuu-fishing/international-framework/unclos/en/>, accessed on 21 May 2019.

²¹ *Ibid.*

²² See note 12 at 1.

of IUU fishing. These instruments include initiatives for sustainably caught fish and labelling of sustainably harvested fishing by States and independent entities as discussed below, seafood monitoring and traceability, the adaptation of a legally binding agreement on port State measures, collaboration and cooperative measures amongst various States and measures by various governments of nations to assist with deterrence of IUU fishing.

2.2 Global instruments for deterrence of IUU fishing

Since the adaption and expansion of IUU fishing, several initiatives, international organisations and instruments were adopted with the goal of deterrence and suppression of this phenomenon, IUU fishing.

Other than UNCLOS, discussed above, and the FAO, global instruments including organisations and initiatives which are applicable to South Africa and are aimed at the deterrence of IUU fishing, include: Agenda 21,²³ Agenda 2030 for Sustainable Development,²⁴ United Nations Conference on Trade and Development (UNCTAD),²⁵ Organisation for Economic Cooperation and Development (OECD),²⁶ Marine Stewardship Council (MSC),²⁷ Convention on International Trade of Endangered Species (CITES),²⁸ Convention on the Conservation of Marine Living Resources (CCAMLR)²⁹ and the United Nations Convention on Migration of Species (CMS).³⁰ Many independent civil organisations such as the World Wide Fund for Nature (WWF)³¹ and Greenpeace³² also play an influence in the framework for

²³ United Nations Sustainable Development 'United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992 AGENDA 21' available at

<https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>, accessed on 23 June 2019.

²⁴ United Nations 'Transforming our world: the 2030 agenda for sustainable development' available at

<https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>, accessed on 24 June 2019.

²⁵ United Nations 'Report of the Trade and Development Board on its sixty-seventh executive session' available at https://unctad.org/meetings/en/SessionalDocuments/tdbex67d2_en.pdf, accessed on 29 September 2019.

²⁶ OECD 'OECD' available at <https://www.oecd.org/index.htm>, accessed on 23 August 2019.

²⁷ Marine Stewardship Council 'What is the MSC' available at https://www.msc.org/about-the-msc/what-is-the-msc?gclid=Cj0KCQiAtf_tBRDtARIsAlbAKE1GEsFQLENiQc5ZwNlcwYxjhugQxdMXl3QjwuJQAgDwbse8vhOhMoaAljAEALw_wcB, accessed on 28 August 2019.

²⁸ Convention on International Trade in Endangered Species of Wild Fauna and Flora, 3 March 1973, 993 UNTS 243.

²⁹ Convention on the Conservation of Antarctic Marine Living Resources, 20 May 1980, 19 ILM 841, 1329 UNTS 48, 7 April 1982.

³⁰ Convention on the Conservation of Migratory Species of Wild Animals, 23 June 1979, 19 ILM 15,1651 UNTS 333, 1 November 1983.

³¹ WWF 'WWF' available at <https://www.wwf.org.za/>, accessed on 2 August 2019.

³² Greenpeace 'Greenpeace' available at <https://www.greenpeace.org/global/>, accessed on 27 August 2019.

deterrence of IUU fishing in South Africa. South Africa has obligations in accordance with the mentioned global instruments and must take initiatives accordingly for successful deterrence of IUU fishing. An overview of the relevant parts of these instruments pertaining to IUU fishing, including the FAO, will be analysed below.³³

(a) Agenda 21

Agenda 21 is a non-binding global voluntary international UN instrument. Sustainable development is the primary aim of Agenda 21. The concept of sustainability and the significance of deterring IUU fishing to ensure sustainability was discussed in chapter one. Sustainable development is essentially economic progression in the absence of the deterioration of the environment.³⁴ Agenda 21 encourages collaboration amongst States to promote sustainable development. Whilst global instruments contribute to sustainable development, the obligation vests on national governments to implement policies, procedures and laws to ensure sustainable development is practiced.

Agenda 21 consists of 40 chapters which addresses the impact of human beings on sustainability of the environment.³⁵ The initiative is the first global instrument that has brought the component of IUU fishing into perspective.³⁶ Agenda 21 was formed by the UN Conference on Environment and Development (UNCED) in 1992. In accordance with Agenda 21 there are several factors mentioned which may cease to deter sustainable fishing. These factors are included in chapter seventeen and comprise of, *inter alia*, ‘the lack of cooperation amongst States, unregulated fishing, unreliable databases and vessel reflagging to escape controls’.³⁷ Thereafter, the chapter went on to urge the international community to partake in addressing inadequacies in fishing practices.³⁸

Agenda 21s goal is achievable by cooperation amongst States globally. Agenda 21 has been adopted by more than 178 States at the Earth Summit in 1992.³⁹ Presently there are at

³³ For the purposes of portraying links amongst these instruments this part will not be discussed in chronological order.

³⁴ Botanic Gardens Conservation International ‘Agenda 21: Programme of Action for Sustainable Development’ available at <http://www.bgci.org/worldwide/article/0011/>, accessed on 17 April 2019.

³⁵ *Ibid.*

³⁶ M.A. Palma, M. Tsamenyi and W. Edeson *Promoting Sustainable fisheries* (2010) 25-26.

³⁷ Agenda 21, para. 17.

³⁸ Agenda 21, para. 17. 45.

³⁹ Sustainable development goals ‘Agenda 21 available at <https://sustainabledevelopment.un.org/outcomedocuments/agenda21>, accessed on 17 October 2019.

least 85 countries which have implemented measures at a national level to achieve Agenda 21's purpose including South Africa.⁴⁰ These measures include plans to address conservation strategies and policies which address sustainable development.⁴¹ However, presently progress in achieving Agenda 21's goal has been slow, as there is an increase in poverty and an escalation in global population, therefore there is strain and degradation on the environment.⁴²

Agenda 21's aim of sustainable development is carried out in South Africa through the Department of Environment Affairs and Tourism (DEAT).⁴³ Chapter 28 of Agenda 21 requires member States local authorities to 'construct, operate and maintain economic, social and environmental infrastructure, oversee planning processes, establish local environmental policies and regulations, and assist in implementing national and subnational environmental policies'.⁴⁴

South Africa has complied with its obligations and has formally adopted an Agenda 21 implementation plan at national level. South Africa participates in the ICLEI- Local Governments for Sustainability initiative which is the world's leading association of local governments and cities which are committed to sustainable development.⁴⁵ ICLEI is an initiative which has the objective of ensuring cities accord with sustainable development and standards. ICLEI makes use of programs in order to achieve this objective. These programs involve management of worldwide 'environmental objects such as air, water, marine life, policy innovation including the local Agenda 21, municipal planning and sustainable management and transformation of infrastructure'.⁴⁶

There are however many challenges concerned with the implementation of Agenda 21 at national level. At the Rio+5 forum these challenges were identified, these include:

'National institutional frameworks which are unsuitable, the lack of coordination between various bodies such as non-governmental organisations (NGOs) and national governments, inadequate legal frameworks, signing of international agreements without prior national consultation, inadequate awareness, increasing poverty and

⁴⁰ National Academy of Sciences 'Agenda 21 Implementation: Progress, Challenges, and the Role of Geographic Data' available at <https://www.nap.edu/read/10455/chapter/4>, accessed on 13 May 2019.

⁴¹ *Ibid.*

⁴² *Ibid.*

⁴³ Enviroopaedia 'Agenda 21' available at http://www.enviroopaedia.com/topic/default.php?topic_id=3, accessed on 7 July 2020.

⁴⁴ Agenda 21, para. 28.1.

⁴⁵ ICLEI – Local Governments for Sustainability 'About' available at <http://africa.iclei.org/about-us.html>, accessed on 18 June 2019.

⁴⁶ *Ibid.*

illiteracy which creates problems for the nation to implement these sustainable development campaigns and initiatives, lack of commitment by State officials to ensure sustainable development programs and gender bias in the national development process'.⁴⁷

Although South Africa has adopted an Agenda 21 implementation plan at national level, there are still challenges present which need to be addressed by member States including South Africa to fulfil their obligation of sustainable development in accordance with Agenda 21. By ensuring sustainable development and adopting practices and measures in line with Agenda 21 we are ensuring sustainable development of the oceans and sustainable fishing which will contribute to the successful deterrence of IUU fishing.

(b) Agenda 2030 for Sustainable Development

Agenda 2030 for Sustainable Development was enforced in 2016.⁴⁸ Agenda 2030 is a universal plan of action aimed at the people, planet and ensuring prosperity.⁴⁹ The plan of action consists of a set of seventeen Sustainable Development Goals (SDGs) which are proposed to be achieved by 2030. This requires efforts by all States and stakeholders to ensure prosperity whilst ensuring protection of the planet. Measures include providing a safe environment without degradation and addressing the problem of climate change and prevention of poverty.⁵⁰

Agenda 2030s SDGs are based on MDGs which have been successful in providing measures to alleviate poverty, the spread of HIV and providing universal education by 2015.⁵¹ The SDGs are however, more ambitious. SDGs address environmental, economic and social development. SDGs are also more complex and are universal. Agenda 2030s SDGs also consists of 169 targets and 231 indicators; targets are regarded as those that an individual State's government must set with consideration of the conditions or circumstances of that State.⁵²

⁴⁷ National Academy of Sciences 'Agenda 21 Implementation: Progress, Challenges, and the Role of Geographic Data' available at <https://www.nap.edu/read/10455/chapter/4>, accessed on 13 May 2019.

⁴⁸ United Nations: Sustainable Development Goals 'The Sustainable Development Agenda' available at <https://www.un.org/sustainabledevelopment/development-agenda/>, accessed on 23 May 2019.

⁴⁹ United Nations 'Transforming our world: the 2030 Agenda for Sustainable Development' available at <https://sustainabledevelopment.un.org/post2015/transformingourworld>, accessed on 18 May 2019.

⁵⁰ *Ibid.*

⁵¹ United Nations: Millennium Development Goals 'News on Millennium Development Goals' available at <https://www.un.org/millenniumgoals/>, accessed on 25 May 2019.

⁵² United Nations in South Africa '2030 Agenda' available at <http://www.un.org.za/sdgs/2030-agenda/>, accessed on 29 May 2019.

II

The SDGs play a vital role in South Africa as they have been aligned in accordance with the National Development Plan (NDP). In 2012 poverty, unemployment and inequality were raised as issues to be dealt with in accordance with the NDP.⁵³ The NDP and SDGs portray a great link as both have similar objectives, aimed at the people, planet and prosperity.⁵⁴ The responsibility of carrying out the SDGs is thus adhered to and achievable in South Africa due to this alignment. Since the acquisition of SDG 14.4 and 14.6, which has proposed measures for the deterrence of IUU fishing by 2020, the productivity in decreasing IUU fishing globally, has risen.

SDG 14.4 states:

‘By 2020, effectively regulate harvesting and end overfishing, IUU fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield (MSY) as determined by their biological characteristics’.⁵⁵

SDG 14.6 states:

‘By 2020, prohibit certain forms of fishing subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to IUU fishing and refrain from introducing new such subsidies, recognising that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organisation (WTO) fishing subsidies negotiations’.⁵⁶

There are however challenges and shortcomings faced by States such as South Africa which cause a hindrance in achieving Agenda 2030s SDGs, these include acquiring the relevant stakeholders and taking action to obtain the SDGs.⁵⁷ Many competing stakeholder interests, such as those companies and businesses involved in the manufacture of chemicals or fuels

⁵³ *Ibid.*

⁵⁴ *Ibid.*

⁵⁵ Alice Tipping ‘SDG 14, the fight against IUU and developing country challenges’ available at <https://unctad.org/meetings/en/Presentation/ditc-ted-10.05.16-oceans-ictds-%20alice%20tipping.pdf>, accessed on 21 May 2019.

⁵⁶ *Ibid.*

⁵⁷ James Patterson ‘3 challenges facing the UN’s Sustainable Development Goals’ available at <https://www.weforum.org/agenda/2015/08/3-challenges-facing-the-uns-sustainable-development-goals/>, accessed on 28 August 2019.

which result in climate change, will feel pressure to change their business habits to accommodate the SDGs, also those which engage in fishing practices which are against SDG 14.4 will feel pressure in going against these practices due to a possible decrease in profit gain.⁵⁸ Another challenge is the need for businesses and stakeholders to account for their actions in getting closer to achieve the SDGs. Therefore there need to be a feedback mechanism in measuring progress towards the SDGs, otherwise it would be difficult to determine how much further effort is necessary to achieve these SDGs.⁵⁹ The achievement of the SDGs therefore requires commitment, responsibility and awareness of the long term award of sustainable development amongst stakeholders and States such as South Africa in achieving these goals.

(c) United Nations Conference on Trade and Development (UNCTAD)

UNCTAD is an intergovernmental organisation established by the UN General Assembly in 1964.⁶⁰ UNCTADs primary goal is prosperity for all and works alongside governments to meet SDGs. UNCTAD measures their progress, along with other UN agencies and departments, by Agenda 2030s SDGs.⁶¹ UNCTAD consists of 194 member States including South Africa.

SDG 14 deals with the conservation and sustainable use of the oceans and marine resources for sustainable development.⁶² As highlighted above SDG 14.6 addresses fishing subsidies which contribute to overcapacity, overfishing and IUU fishing, the elimination of these subsidies and refraining from the introduction of these subsidies.⁶³ International organisations namely the FAO and the UN Environmental Programme (UNEP) joined forces with UNCTAD to propose to eliminate subsidies in 2016. This is supported by more than 90 member States including South Africa.⁶⁴ The responsibility of member States in accordance with this statement is to address subsidies that give rise to overfishing, IUU fishing and overcapacity by:

⁵⁸ *Ibid.*

⁵⁹ *Ibid.*

⁶⁰ United Nations Conference on Trade and Development 'About UNCTAD' available at <https://unctad.org/en/Pages/aboutus.aspx>, accessed on 17 May 2019.

⁶¹ *Ibid.*

⁶² Alice Tipping 'SDG 14, the fight against IUU and developing country challenges' available at <https://unctad.org/meetings/en/Presentation/ditc-ted-10.05.16-oceans-ictds-%20alice%20tipping.pdf>, accessed on 21 May 2019.

⁶³ *Ibid.*

⁶⁴ UNCTAD 'Regulating Fisheries Subsidies' available at <https://unctad.org/en/Pages/DITC/Trade-and-Environment/Regulating-Fisheries-Susidies.aspx>, accessed on 18 May 2019.

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‘Providing information on what subsidies they are providing, prohibit those subsidies which contribute to overfishing and illegal fishing, introduce new policies tools to deter the introduction of new harmful subsidies and providing special and differential treatment to developing countries’.⁶⁵

Subsidies for fish stocks plays a crucial role in the destruction of the marine environment, causes an uncertain plight in food security and challenge’s employment opportunities for those who rely on small scale fishing for their livelihoods.⁶⁶

Challenges that were found in regulating subsidies include the role that subsidies play and the impact of regulation as well as the role of national authorities and artisanal fishers. Transparency and feedback are also seen as an issue as governments need to give feedback on their subsidies and precisely how much they are assigning in support of their fish stocks.⁶⁷ However, according to the FAO there are presently no tax incentives or subsidies for South African fisheries.⁶⁸ Therefore it can be said that South Africa is complying with its obligations under UNCTAD to eliminate and prohibit fisheries subsidies. The main action which needs to be taken by South Africa is the continued commitment to introducing policy tools to refrain from introducing fisheries subsidies.

(d) Organisation for Economic Cooperation and Development (OECD)

In 2003 the social, economic and environmental factors of IUU fishing was explored by the OECD. The organisation comprises of 36 member States and its primary goal is to encourage policies for the betterment of economic and social conditions globally.⁶⁹ The Trade and Agriculture Directorate is one of the twelve substantive departments of the OECD which provides solutions and advice to governments of various nations to assist in forming effective and sustainable growth policies in fisheries, agriculture and trade.⁷⁰ The OECD comprises of

⁶⁵ *Ibid.*

⁶⁶ Department of Trade and Industry ‘World Trade Organisation (WTO) reforms must respond to the needs of developing countries, Minister Davies’ available at <https://www.thedti.gov.za/editmedia.jsp?id=5870>, accessed on 28 August 2019.

⁶⁷ Roberto Azevêdo ‘Africa: Cut Fishing Subsidies and Save Marine Life, Says Trade Talks Chief’ available at <https://allafrica.com/stories/201906060851.html>, accessed on 28 June 2019.

⁶⁸ Food and Agricultural Organisation of the United Nations ‘Republic of South Africa’ available at <http://www.fao.org/fishery/facp/ZAF/en#:~:text=There%20are%20no%20tax%20incentives,are%20based%20on%20resource%20status>, accessed on 7 July 2020.

⁶⁹ OECD ‘About the Trade and Agriculture Directorate’ available at <https://www.oecd.org/agriculture/about/>, accessed on 4 June 2019.

⁷⁰ *Ibid.*

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the Committee for Fisheries which looks at current concerns, issues and the analysis of global issues in marine species, aquaculture and sustainable fishing management.⁷¹

The committee aims to secure sustainability in fishing whilst providing adequate food of a quality standard. South Africa is not a member State of the OECD however, South Africa is now one of the five key partners of the OECD due to a resolution that has been adopted in 2007. South Africa alongside other four key partner nations, China, Indonesia, India and Brazil play a part in helping the OECDs work and activities in a manageable and extensive method.⁷² South Africa carries out its obligations as a key partner by participating in the following policy issues:

‘Macroeconomic policy and structural reform, debt management, fiscal policy, domestic resource mobilisation, competition policy, agricultural policy, public governance, rural and urban development, the fight against bribery, development, science, technology and innovation, chemicals testing and tourism’.⁷³

There are challenges identified in the implementation of the OECDs role in fishery management. One of these challenges is the treatment of fishing-related activities which are treated more liberal compared to the governance of fishing.⁷⁴ The OECD identified transshipment activities as being more liberal compared to the reporting of fishing catches. This was evident in their finding that 25 percent of OCED members did not have necessary measures implemented nationally for transshipment and the regulation of foreign vessels, which means that they can easily charter local vessels and make use of the domestic States marine resources.⁷⁵ Transshipment activities are known to cause IUU fishing catches to reach the market.⁷⁶ The OECD also found that a third of member States did not implement measures to regulate trade information for the purposes of acquiring information on IUU fishing goods along the trade chain.⁷⁷ A mere 6 percent of member States made their fishing data on foreign vessels available to the public.⁷⁸ Another challenge is the sanctions imposed by States for

⁷¹ *Ibid.*

⁷² OECD ‘South Africa and the OECD’ available at <http://www.oecd.org/southafrica/south-africa-and-oecd.htm>, accessed on 6 June 2019.

⁷³ *Ibid.*

⁷⁴ Barbara Hutniczak ‘Closing Gaps in National Regulations Against IUU Fishing’ available at <https://www.oecd-ilibrary.org/docserver/9b86ba08-en.pdf?expires=1567079217&id=id&accname=guest&checksum=E151C19173BAFFC3CABCB814669CF443>, accessed on 23 June 2019.

⁷⁵ *Ibid.*

⁷⁶ Stop Illegal Fishing ‘Transshipment’ available at stopillegalfishing.com/issues/transshipment/, accessed on 5 August 2020.

⁷⁷ *Ibid.*

⁷⁸ *Ibid.*

evasion of IUU fishing activities such as organised crime and money laundering, where it was found that merely 26 percent of States had regulations implemented for these activities.⁷⁹ States need to address these challenges and implement the necessary measures to contribute to the successful deterrence of IUU fishing.

(e) Marine Stewardship Council (MSC)

The MSC is an independent non-profit organisation⁸⁰ which had established a MSC fisheries standard in 1998.⁸¹ The MSC addresses the problems of destructive fishing, overfishing and IUU fishing.⁸² Ultimately the MSCs goal is to secure sustainable fishing by using an ecolabel and fishery certification program which sets standards for sustainable fishing and ensures that seafood sources are trackable.⁸³ The council was instituted with the purpose of utilising the standard to appraise the catch of fish and verifying the fish as sustainable if they accord with the benchmark set in the MSC fisheries standard.⁸⁴

The presence of the MSC blue label on a product means the product is a sustainably fished product and is certified by the MSC.⁸⁵ The MSC works jointly with fishers, processors and retailers to ensure that certified sustainable seafood is being sold to the public.⁸⁶ The MSC is a global initiative, several retailers contribute globally. In South Africa retailers that support the MSC blue label include Woolworths and Sea Harvest fisheries.⁸⁷ In 2012 Woolworths partnered with the MSC and added the ecolabel on their canned, frozen and chilled seafood ranges. Woolworths also implemented the ‘Fishing for the Future’ program⁸⁸ and remains the

⁷⁹ *Ibid.*

⁸⁰ Marine Stewardship Council ‘Our History’ available at <https://www.msc.org/about-the-msc/our-history>, accessed on 23 October 2019.

⁸¹ Marine Stewardship Council ‘What is the MSC’ available at <https://www.msc.org/en-us/about-the-msc/what-is-the-msc>, accessed on 3 June 2019.

⁸² *Ibid.*

⁸³ Marine Stewardship Council ‘What does the blue MSC label mean’ available at <https://www.msc.org/what-we-are-doing/our-approach/what-does-the-blue-msc-label-mean>, accessed on 6 June 2019.

⁸⁴ *Ibid.*

⁸⁵ Marine Stewardship Council ‘Eat Sustainable Seafood’ available at <https://www.msc.org/what-you-can-do/eat-sustainable-seafood>, accessed on 20 May 2019.

⁸⁶ Marine Stewardship Council ‘About’ available at <http://africa.msc.org>, accessed on 18 May 2019.

⁸⁷ Marine Stewardship Council ‘From Sea to shelf: Wild South African Hake’ available at, <https://www.msc.org/home/meet-the-wild-ones/from-sea-to-shelf-wild-south-african-hake> accessed on 17 May 2019.

⁸⁸ Marine Stewardship Council ‘Commitment supports Woolworths’ position as South Africa’s leading retailer of MSC labelled products’ available at <https://www.msc.org/en-us/media-center/news-media/commitment-supports-woolworths%27-position-as-south-africa-s-leading-retailer-of-msc-labelled-products>, accessed on 20 May 2019.

countries retailer with the widest choice of sustainably fished products.⁸⁹ Sea Harvest also applies the MSC ecolabel to their cape hake and shark bay prawn products, furthermore, Sea Harvest participates in the World Wildlife Fund (WWF) South Africa and BirdLife South Africa, South African Deep-Sea Trawling Industry Association (SADSTIA) as well as many other initiatives.⁹⁰ In 2018 the Fish for Good project was initiated by the MSC, working towards sustainable fishing in South Africa, Mexico and Indonesia.⁹¹ The project is a four-year program funded by the Dutch Postcode Lottery, where the MSC sustainable fisheries criteria is used to structure improved fishing activities and potential future certification.⁹²

The MSCs ecolabel is used amongst several retailers globally, an estimated 12 percent of the world's fisheries are fished sustainably in accordance with the MSC.⁹³ However, only 4 percent out of the 12 percent accounts for fish products within the global south. As highlighted above, in South Africa, the MSCs fisheries certification is used amongst retailers such as Woolworths and South Africa is party to the MSC program the Fish for Good project, however, many fishing retailers in the country have not applied the MSC ecolabel.

The MSC is a market-based mechanism and retailers are encouraged to observe the MSCs program as it is a voluntary based sustainability standard. Therefore, the discretion is on the retailers to choose whether to observe these standards and is their responsibility to adopt the MSC measures to secure sustainability. However, it is evident from the *Bengis* case discussed in chapter three that retailers engage in IUU fishing activities such as the purchasing of IUU fishing stocks or engage in IUU fishing at sea for the purposes of increased profit gain as it is seen as more beneficial for-profit purposes and increased stocks then resorting to sustainable fishing initiatives such as the MSC. The MSC therefore, requires commitment and responsibility in the adoption of their measures.

In some instances, marine products which are certified as sustainably fished are sometimes not, as a significant number of legal fished products are mixed with fish caught as

⁸⁹ *Ibid.*

⁹⁰ Sea Harvest 'Sustainability' available at <https://www.seaharvest.co.za/sustainability/>, accessed on 28 August 2019.

⁹¹ Marine Stewardship Council 'Collaborative approach to help South African fisheries on path to sustainability' available at <https://www.msc.org/media-centre/press-releases/collaborative-approach-to-help-south-african-fisheries-on-path-to-sustainability>, accessed on 21 May 2019.

⁹² *Ibid.*

⁹³ The University of Melbourne 'Assessing the effectiveness of the Marine Stewardship Council certification in southern countries' available at <https://minerva-access.unimelb.edu.au/handle/11343/119740>, accessed on 28 August 2019.

a result of IUU fishing.⁹⁴ Better traceability and tracking systems need to be implemented. The achievement of obtaining full traceability of marine fisheries may, however, take many years.⁹⁵

(f) Convention on International Trade of Endangered Species (CITES)

CITES is an international voluntary agreement amongst States.⁹⁶ CITES aim is ensuring trade of specimens of flora and fauna does not result in endangering their existence, by providing a framework of regulatory measures to ensure the long-term sustainability of these specimens.⁹⁷ CITES provides a framework which is legally binding on all member States and is incorporated into national laws by States however⁹⁸ CITES has been supported immensely with 183 member States including South Africa.⁹⁹ The listing of species which is regulated by CITES is proposed by member States and determined at each conference of the parties meeting (CoP).¹⁰⁰ CITES has relations with the WTO and makes use of trade related measures to ensure their aims of conservation and regulation.¹⁰¹

CITES is commonly known for the regulation and protection in trade of wildlife species and CITES ensures these species are prevented from being endangered.¹⁰² However, CITES also provides protection in the trade of marine species.¹⁰³ Species such as sea horses, cetaceans, clams, commercially harvested sharks, rays and corals are protected and regulated in their trade by CITES.¹⁰⁴ At the 2013 and 2016 meetings of the CoP, the need to regulate the trade of marine species including commercially harvested sharks and rays was discussed.¹⁰⁵ CITES has recorded sharks as one of the most over exploited marine species.¹⁰⁶ CITES makes reference to UNCLOS in Article XIV paragraph 6, states:

‘Nothing in the present convention shall prejudice the codification and development of the law of the sea by UNCLOS convened pursuant to resolution 2750 C (XXV) of the

⁹⁴ PEW ‘FAQ: Illegal, Unreported, and Unregulated Fishing’ available at <https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2013/08/27/faq-illegal-unreported-and-unregulated-fishing>, accessed on 14 October 2019.

⁹⁵ *Ibid.*

⁹⁶ CITES ‘What is CITES’ available at <https://www.cites.org/eng/disc/what.php>, accessed on 6 June 2019.

⁹⁷ *Ibid.*

⁹⁸ *Ibid.*

⁹⁹ *Ibid.*

¹⁰⁰ UNCTAD ‘Briefing on Fisheries Regulatory Framework at the Multilateral Level’ available at <https://unctad.org/meetings/en/Presentation/ted-ditc-21032017-CITES-Scanlon.pdf>, accessed on 2 June 2019.

¹⁰¹ *Ibid.*

¹⁰² *Ibid.*

¹⁰³ *Ibid.*

¹⁰⁴ *Ibid.*

¹⁰⁵ *Ibid.*

¹⁰⁶ *Ibid.*

general assembly of the UN nor the present or future claims and legal views of any State concerning the law of the sea and the nature and extent of coastal and flag State jurisdiction'.¹⁰⁷

One of the aspects which CITES focuses on is listed species which can be traded if they are 'legal, sustainable and reported'¹⁰⁸ which may be referred to as the opposite of illegal, unreported and unregulated. Legal refers to trade where the other party is satisfied that the specimen is obtained in absence of any contravention of the law, for example when exports take place the State where the specimen is being received must be satisfied that that specimen was obtained in absence of any contravention of the law such as acquiring the necessary permits for that trade.¹⁰⁹ Sustainable refers to trade which does not result in the endangerment of the survival of that species of specimen.¹¹⁰ Reported refers to the requirement of obtaining permission to trade that specimen by reporting the trade of that specimen to the Secretariat which is then made widely known on the CITES trade database.¹¹¹ CITES also plays an active role in the enforcement of SDG 14.4.¹¹²

In South Africa the Department of Environmental Affairs is designated as the management authority for CITES. The department has the responsibility of 'coordinating the implementation of CITES internally acts as channel of communication between the CITES Secretariat and other parties on the one hand, and the provincial management authorities and other bodies involved on the other'.¹¹³ In accordance with the South African Constitution¹¹⁴ provincial departments carry out the responsibility of the protection of flora and fauna¹¹⁵ including the trade of these species. These provincial departments are therefore management powers delegated to CITES.¹¹⁶ South Africa carries out their obligations in accordance with CITES actively, and regulates the trade of species including marine species such as abalone

¹⁰⁷ Willem Wijnstekers 'The Evolution of CITES' available at

https://stag.cites.org/sites/default/files/common/resources/Evolution_of_CITES_9.pdf, accessed on 3 June 2019.

¹⁰⁸ UNCTAD 'Briefing on Fisheries Regulatory Framework at the Multilateral Level' available at

<https://unctad.org/meetings/en/Presentation/ted-ditc-21032017-CITES-Scanlon.pdf>, accessed on 2 June 2019.

¹⁰⁹ *Ibid.*

¹¹⁰ *Ibid.*

¹¹¹ *Ibid.*

¹¹² John E. Scanlon 'CITES Secretary-General's remarks at the briefing on Fisheries Regulatory Framework at the Multilateral Level - Geneva, Switzerland' available at

https://www.cites.org/eng/news/sg/CITES_SG_remarks_Briefing_Fisheries_Regulatory_Framework_at_the_Multilateral_Level_21032017, accessed on 18 August 2019.

¹¹³ Department of Environment, Forestry and Fishery 'South Africa as a party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)' available at

https://www.environment.gov.za/legislation/international_agreements/sapartytocites, accessed on 7 July 2020.

¹¹⁴ Constitution of the Republic of South Africa, 1996 (The Constitution).

¹¹⁵ *Ibid.*

¹¹⁶ *Ibid.*

and whales. South Africa has proposed the listing of the species in CITES Appendix III to curb illegal trade of abalone species.¹¹⁷ In this manner importing countries will be aware if a consignment of abalone is illegal as it does not have a CITES export permit.¹¹⁸ This will help control illegal trade in abalone and furthermore protect the species. Strict legislative measures have been adopted by South Africa for the protection of whales which also prevents the trade of this species.¹¹⁹

CITES and the effectiveness of this instrument is often a controversial issue. Some argue that the convention does not hold mechanisms that are strong enough whilst others argue that the convention conforms to western ideologies on animal rights and therefore it is neo-colonial.¹²⁰ CITES provides protection for minimal ocean specimens, most argue that these specimens should be extended to species such as the thresher shark.¹²¹ CITES does not provide regulation of trade for all marine species, marine ecosystems and conservation of the ocean and therefore does not play an active role in deterrence of IUU fishing, however, CITES does regulate specific marine species as pointed out above and enforces SDG 14.4 therefore the convention is relevant. CITES should provide protection to an extensive number of marine species as there are several other species which are vulnerable, in need of protection and protection in trade. In this manner vulnerable oceanic species will be monitored and protected from IUU fishing.

(g) Convention on the Conservation of Antarctic Marine Living Resources
(CCAMLR)

The term ‘illegal, unregulated and unreported fishing’ has originated from sessions of the CCAMLR.¹²² The term was first mentioned in 1997 at the CCAMLR meeting agenda, the Seventh Session of the Standing Committee on Observation and Inspection in Agenda item one, Illegal, Unregulated and Unreported Fishing in the Convention area.¹²³

¹¹⁷ *Ibid.*

¹¹⁸ *Ibid.*

¹¹⁹ *Ibid.*

¹²⁰ Theresa Frantz ‘CITES has its critics, but record-breaking conference is critical for world’s wildlife’ available at <https://www.wwf.org.za/?18701/CITES-STimes-oped>, accessed on 28 August 2019.

¹²¹ *Ibid.*

¹²² FAO Fisheries Report *Report of the Expert Consultation on Fishing Vessels Operating Under Open Registries and their impact on Illegal, unreported and unregulated fishing* (No 722) Rome: FAO Fisheries Report (2004) available at <http://www.fao.org/tempref/docrep/fao/006/y5244e/y5244e00.pdf>, accessed on 7 July 2020.

¹²³ *Ibid.*

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CCAMLR is an international commission which was developed in 1982 and is aimed at protection and conservation of marine species and marine ecosystems of Antarctic waters.¹²⁴ CCAMLR consists of 25 member States and eleven States which have acceded to the convention. CCAMLR takes on an ecosystem-based management approach to ensure the harvesting of aquatic species is done sustainably and with consideration for parts of the marine ecosystem.¹²⁵ The commission consists of binding and non-binding conservation measures which are developed and agreed upon at each annual meeting of the commission, thereafter these measures are implemented by member States.¹²⁶ Conservation measures are listed under the following headings, ‘compliance, general fishery matters, fishery regulations and protected areas’.¹²⁷

The convention manages and protects, through ecosystem-based management, the Patagonian tooth fish, mackerel icefish and Antarctic krill species.¹²⁸ Measures such as catch limits and monitoring of these species are put in place.¹²⁹ Fisheries management is reviewed annually by the scientific committee which looks at fishing data, statistics and other information as well information from the CCAMLRs Scheme of International Scientific Observation (SISO).¹³⁰ South Africa is a member State of the CCAMLR and in accordance with the convention management strategies are set in its jurisdiction under the CCAMLRs Antarctic region which are the waters of Prince Edward and Marion Islands.¹³¹

CCAMLR has implemented measures specifically related to the deterrence of IUU fishing. These measures include the implementation of the ‘contracting party IUU vessel list, the non-contracting party IUU vessel list and the control of nationals.’¹³² CCAMLR has made preparations with the South Pacific RFMO (SPRFMO), the Southern Indian Ocean Fisheries

¹²⁴ CCAMLR ‘About CCAMLR’ available at <https://www.ccamlr.org/en/organisation>, accessed on 19 June 2019.

¹²⁵ *Ibid.*

¹²⁶ *Ibid.*

¹²⁷ CCAMLR ‘Conservation Measures’ available at <https://www.ccamlr.org/en/conservation-and-management/conservation-and-managment>, accessed on 20 June 2019.

¹²⁸ CCAMLR ‘Fisheries’ available at <https://www.ccamlr.org/en/fisheries/fisheries>, accessed on 21 June 2019.

¹²⁹ *Ibid.*

¹³⁰ *Ibid.*

¹³¹ *Ibid.*

¹³² CCAMLR ‘Illegal, unreported and unregulated (IUU) fishing’ available at <https://www.ccamlr.org/en/compliance/illegal-unreported-and-unregulated-iuu-fishing>, accessed on 23 June 2019.

Agreement (SIOFA) and the South East Atlantic Fisheries Organisation (SEAFO)¹³³, these RFMOs assist with deterrence of IUU fishing within the convention area.¹³⁴

Member States are under obligation to report any IUU fishing activity to CCAMLR, within the convention area. These States must provide details of these IUU fishing vessels, investigate the vessels and their activities and provide information on investigation measures or steps taken to deter such IUU fishing activity to the CCAMLR.¹³⁵ The contracting party IUU vessel list and the non-contracting party IUU vessel list are made available as soon as States provide information to the public. The vessels which are included in these lists have been engaging in IUU fishing within the convention area.¹³⁶ Member States must be present at all meetings, implement policies and initiatives in accordance with CCAMLR and contribute to CCAMLRs discussions.¹³⁷

South Africa as a member State has carried out these obligations and played a productive role in the latest meeting, the 38th meeting of the commission. The meeting was attended by delegates' from the Department of Environmental Affairs and DAFF. MPAs in the convention area was actively addressed by South Africa during the meeting¹³⁸ and concerns were raised by the State regarding the process of declaring MPAs within the convention area.¹³⁹ In 2018 South Africa had chaired and hosted a successful Intersessional Correspondence Group (ICG) workshop which focused on capacity building where terms of reference to a General Capacity Building Fund (GCBF) which will support CCAMLR member States which are least effective in the implementation of their obligations under the convention.¹⁴⁰ South Africa carries out its obligations in accordance with the CCAMLR in the fight against IUU fishing and provides significant information to CCAMLR concerning illegal operators in FAO statistical zones and facts concerning southern African ports utilised for illegal landings of Patagonian toothfish, as well as approximates of amounts of illegal Patagonian toothfish

¹³³ South East Atlantic Fisheries Organisation, 20 April 2001, 41 ILM 257, 13 April 2003.

¹³⁴ *Ibid.*

¹³⁵ *Ibid.*

¹³⁶ *Ibid.*

¹³⁷ SANAP 'SCAR Fellowship Scheme, partnerships and new opportunities in 2019' available at <https://www.sanap.ac.za/tag/ccamlr/>, accessed on 27 August 2019.

¹³⁸ Commission for the Conservation of Antarctic Marine Living Resources *Report of the Thirty-Eighth Meeting of the Commission* (No 38) Australia: CCAMLR (2019) available at https://www.ccamlr.org/en/system/files/e-cc-38_1.pdf, accessed on 8 July 2020.

¹³⁹ *Ibid.*

¹⁴⁰ *Ibid.*

landings.¹⁴¹ South Africa has also published policies concerning the allocation and management of commercial fishing rights in the Patagonian toothfish fishery.¹⁴²

Since the implementation of CCAMLRs measures, IUU fishing has decreased within the convention area.¹⁴³ However, there are ongoing challenges as identified by CCAMLR that cause hindrance in meeting the conventions goals. These include a lack of information on fishing vessels including information based on the impacts of these vessels on conservation and marine habitats.¹⁴⁴ There are also insufficient information made available by States on the removal of these IUU fishing vessels.¹⁴⁵ South Africa has successfully been carrying out their obligations in accordance with CCAMLR however, it is important to maintain this standard and for South Africa to contribute to addressing these challenges of the CCAMLR for successful deterrence of IUU fishing.

(h) United Nations Convention on Migration of Species (CMS)

CMS is a global environmental treaty under UNEP¹⁴⁶ which has been in force since 1983.¹⁴⁷ Also known as the Bonn Convention¹⁴⁸, CMS provides a legal basis for terrestrial, aquatic and avian migratory species through States as well as a policy for the protection, conservation and sustainable use of migratory species and their habitats. CMS also helps to ensure these species are safe from endangerment of extinction.¹⁴⁹ CMS works together with States, range States¹⁵⁰, international organisations, NGOs, partners and corporate bodies to ensure conservation of migratory animals, their migratory paths and habitats.¹⁵¹ The convention promotes the

¹⁴¹ R Tilney, M.G. Purves 'The status of integrated fisheries monitoring in South Africa' available at <http://www.fao.org/3/x3900e/x3900e08.htm>, accessed on 9 July 2020.

¹⁴² GN 1133 of GG 39417, 16/11/2015.

¹⁴³ CCAMLR 'Achievements and Challenges' available at <https://www.ccamlr.org/en/organisation/key-challenges-and-achievements>, accessed on 23 August 2019.

¹⁴⁴ *Ibid.*

¹⁴⁵ *Ibid.*

¹⁴⁶ CMS 'CMS' available at <https://www.cms.int/en/legalinstrument/cms>, accessed on 7 June 2019.

¹⁴⁷ United Nations 'Convention on the Conservation of Migratory Species of Wild Animals' available at <https://observatoriop10.cepal.org/en/treaties/convention-conservation-migratory-species-wild-animals>, accessed on 29 October 2019.

¹⁴⁸ CMS 'Convention on the Conservation of Migratory Species of Wild Animals' available at <https://www.cms.int/>, accessed on 5 November 2019.

¹⁴⁹ *Ibid.*

¹⁵⁰ InforMEA 'Range State' available at <https://www.informea.org/en/terms/range-state>, accessed on 8 June 2019. 'A range state in relation to a particular migratory species means any state that exercises jurisdiction over any part of the range of that migratory species, or a state, flag vessels of which are engaged outside national jurisdictional limits in taking that migratory species'.

¹⁵¹ CMS 'CMS' available at <https://www.cms.int/en/legalinstrument/cms>, accessed on 7 June 2019.

conservation of these migratory species and requires range States to implement measures and take action for conservation of these species such as encouraging interaction amongst range States and international and regional organisations. The CMS framework consists of legally binding treaties and less formal instruments.¹⁵²

South Africa is party to CMS¹⁵³ and partakes in many CMS instruments such as the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) and the Agreement on the Conservation of Albatrosses and Petrels (ACAP).¹⁵⁴ South Africa is a memorandum of understanding (MOU) signatory to the Atlantic turtles, Indian Ocean South East Asian Marine Turtles, Birds of Prey and Sharks (IOESA). South Africa is a range State to western African aquatic animals, African carnivore's initiative and lions.¹⁵⁵

At the second meeting of the MOU on the conservation of migratory sharks, it was stated:

‘We recognise the critical role that migratory sharks play in marine ecosystems and local economies, and are concerned about the significant mortality of sharks, including those from a range of impacts and threats including target fisheries, fisheries by-catch, IUU fishing, trophy hunting, marine debris, ecosystem modifications, anthropogenic disturbances, and increasing pressures on the marine environment due to climate change’.¹⁵⁶

According to the MOU, IOESA marine turtles, in the 2014 South African national report, it was emphasised that many approaches are taken by South Africa for the protection of marine turtle populations and their habitats, also for their adaptation somewhere else.¹⁵⁷ According to the report these measures include:

‘Continuous patrolling and monitoring of turtle nesting numbers in the index areas, community monitors are hired and trained annually to monitor, a range of ecotourism ventures, capitalising on turtles and turtle monitoring, education and awareness programmes around nesting beaches highlighting the importance and sensitivity of

¹⁵² *Ibid.*

¹⁵³ CMS ‘Parties and Range States’ available at <https://www.cms.int/en/parties-range-states>, accessed on 16 June 2019.

¹⁵⁴ CMS ‘South Africa’ available at <https://www.cms.int/en/country/south-africa>, accessed on 19 June 2019.

¹⁵⁵ *Ibid.*

¹⁵⁶ CMS ‘Memorandum of understanding on the conservation of migratory sharks’ https://www.cms.int/sites/default/files/instrument/Sharks_MOU_Text_annexes.pdf, accessed on 17 June 2019.

¹⁵⁷ CMS ‘South Africa’ available at https://www.cms.int/iosea-turtles/sites/default/files/document/SouthAfrica_19_09_2014.pdf, accessed on 16 June 2019.

marine turtles and the expansion of research associated with all aspects of turtle management'.¹⁵⁸

It is clear that CMS provides measures for the conservation, protection and adaptation of migratory species, including aquatic species such as sharks and turtles. These species are slow growing and play an important role in biodiversity, marine ecosystems and ecology of the oceans. These species usually are not victimised in IUU fishing catch unless it is for illegal medicinal reasons or human consumption however these species may be a victim of the by catch species which are caught in nets including driftnets unintentionally and in most cases are left to die. The participatory measures carried out by South Africa, discussed above, contributes to the protection of these species in South Africa. South Africa therefore carries out its obligations in accordance with CMS by adopting measures for protection of these species. It was also highlighted that South Africa recognises IUU fishing as threat to the increasing mortality of sharks. IUU fishing may result in ghost fishing and the catch of by fish species such as migratory sharks and turtles, therefore it is crucial to provide necessary protection to these species. Furthermore, by adopting measures such as patrolling and monitoring for the protection of these species this may contribute to deterrence of IUU fishing as activities at various parts of the ocean are being monitored.

2.3 Food and Agricultural Organisation of the United Nations (FAO)

According to the FAO annually an estimated eleven to twenty-six million tonnes of fish are fished by IUU fishing activities.¹⁵⁹ The economic loss due to these activities is estimated to be worth US\$10 to US\$23 billion dollars.¹⁶⁰ The FAO's primary goal is food security for all and the organisation consists of more than 194 member States. Additionally, the establishment works in over 130 countries globally.¹⁶¹

The FAO adopted the Committee on Fisheries (COFI),¹⁶² Code of Conduct for Responsible Fisheries (The Code),¹⁶³ United Nations International Plan of Action to Prevent,

¹⁵⁸ *Ibid.*

¹⁵⁹ United Nations 'International Day for the Fight against Illegal, Unreported and Unregulated Fishing' available at <https://www.un.org/en/events/illegalfishingday/>, accessed on 30 May 2019.

¹⁶⁰ *Ibid.*

¹⁶¹ FAO 'About FAO' available at <http://www.fao.org/about/en/>, accessed on 18 March 2019.

¹⁶² FAO 'Committee on Fisheries' available at <http://www.fao.org/3/a-mk049efpdf>, accessed on 20 June 2019.

¹⁶³ FAO 'Code of Conduct for Responsible Fisheries' available at

Deter and Eliminate Illegal, Unreported and Unregulated fishing (IPOA–IUU),¹⁶⁴ Agreement on Port State Measures (PSMA),¹⁶⁵ Voluntary Guidelines for Catch Documentation Schemes (VGCDS)¹⁶⁶ and Voluntary Guidelines for Flag State Performance (VGFSP).¹⁶⁷ Along with these schemes the FAO assists with deterrence of IUU fishing within member States and globally.¹⁶⁸ South Africa is a member State of the FAO.¹⁶⁹ The FAO assists in South Africa regarding three primary concerns, namely:

‘Food security and nutrition and food safety, sustainable management and use of natural resources and forestry, institutional capacity building for sustained management of natural resources and increased agriculture production’.¹⁷⁰

Within the FAO framework, it is the responsibility of South Africa to address the technological and institutional gaps in the global South, particularly in the rest of Africa.¹⁷¹

(a) Committee on Fisheries (COFI)

COFI is a subsidiary body of the FAO which deals with issues regarding global fisheries.¹⁷² Sessions are held where these issues are addressed, and suggestions are given to States, international fishing organisations, NGOs, RFMOs and fisheries bodies.¹⁷³ COFI has to date held 33 sessions; the first session took place in 1966 and the latest session took place in 2018.¹⁷⁴ Sub-committees may be established by COFI, COFI has established a Sub-Committee on Fish

<http://www.fao.org/3/v9878e/v9878e00.htm>, accessed on 25 June 2019.

¹⁶⁴ FAO ‘International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing’ available at <http://www.fao.org/3/a-y1224e.pdf>, accessed on 29 June 2019.

¹⁶⁵ FAO ‘Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing’ available at http://www.fao.org/fileadmin/user_upload/legal/docs/037t-e.pdf, accessed on 11 May 2019.

¹⁶⁶ FAO ‘Voluntary Guidelines for Catch Documentation Schemes’ available at <http://www.fao.org/3/a-i8076e.pdf>, accessed on 4 June 2019.

¹⁶⁷ FAO ‘Voluntary Guidelines for Flag State Performance’ available at <http://www.fao.org/3/a-i4577t.pdf>, accessed on 3 June 2019.

¹⁶⁸ FAO ‘Illegal, unreported and unregulated fishing, FAO Compliance Agreement’ available at <http://www.fao.org/iuu-fishing/international-framework/fao-compliance-agreement/en/>, accessed on 17 May 2019.

¹⁶⁹ FAO ‘Country Profiles’ available at <http://www.fao.org/countryprofiles/en/>, accessed on 21 March 2019.

¹⁷⁰ *Ibid.*

¹⁷¹ FAO ‘South Africa and the FAO’ available at <http://www.fao.org/3/a-ax279e.pdf>, accessed on 24 June 2019.

¹⁷² FAO ‘Committee on Fisheries (COFI) - Fisheries and Aquaculture Department’ available at <http://www.fao.org/fishery/about/cofi/en>, accessed on 28 May 2019.

¹⁷³ *Ibid.*

¹⁷⁴ FAO: Agreement on Port State Measures (PSMA) ‘Thirty-third session of the Committee of Fisheries (COFI)’ available at <http://www.fao.org/port-state-measures/news-events/detail/en/c/1111559/>, accessed on 27 May 2019.

II

Trade at its sixteenth session¹⁷⁵ and has also established a Sub-Committee on Aquaculture at its 24th session.¹⁷⁶ At the latest session, the 33rd session a proposal for the establishment of a Sub-Committee on Fisheries Management was proposed by Norway. During the 33rd session it was pointed out that IUU fishing is one of the issues which is not specifically covered by the two existing committees.¹⁷⁷

However, IUU fishing has been addressed at several COFI sessions including the latest session.¹⁷⁸ At this session a number of key aspects with regards to IUU fishing were addressed by the committee including, challenges faced by member States and the need for the FAO to provide technical assistance to these States, cooperation and information sharing amongst the committee such as mechanisms for effective deterrence of IUU fishing.¹⁷⁹ The committee also noted the significant role that the launch of the global record of fishing vessels and refrigerated transport vessels and supply vessels plays in deterrence of IUU fishing.¹⁸⁰ The role of VGCDs was commended and noted as a crucial measure in deterrence of IUU fishing. The committee highlighted the need to develop a repository to inform rights-based fisheries and the significance of achieving SDG 14.¹⁸¹ The International Day for the Fight against IUU fishing was endorsed by COFI at its 32nd session in 2016.¹⁸²

According to the report of the 33rd session of COFI, the committee undertakes the following:

‘Collaborates with statutory and other bodies under FAO auspices, liaises with the programme committee on strategy and priority matters, and with the finance committee on financial and budgetary matters, as well as other relevant FAO governing bodies. It liaises with other international organisations active in the areas of fisheries and

¹⁷⁵ FAO ‘Sub-Committee on Fish Trade’ available at <http://www.fao.org/about/meetings/cofi-sub-committee-on-fish-trade/en/#:~:text=Main%20Functions%3A,aspects%20of%20production%20and%20consumption>, accessed on 8 July 2020.

¹⁷⁶ FAO ‘COFI Sub-Committee on Aquaculture’ available at <http://www.fao.org/about/meetings/cofi-sub-committee-on-aquaculture/en/>, accessed on 8 July 2020.

¹⁷⁷ Committee on Fisheries *Proposal for a new Sub-Committee on Fisheries Management* Rome: COFI (2020) available at <http://www.fao.org/3/ca7688en/ca7688en.pdf>, accessed on 10 July 2020.

¹⁷⁸ FAO *Report of the Thirty-third Session of the Committee on Fisheries* (No 1249) Rome: COFI (2019) available at <http://www.fao.org/3/ca5184en/CA5184EN.pdf>, accessed on 23 May 2019.

¹⁷⁹ *Ibid.*

¹⁸⁰ *Ibid.*

¹⁸¹ *Ibid.*

¹⁸² FAO: Illegal, Unreported and Unregulated (IUU) fishing ‘International Day against IUU fishing’ available at <http://www.fao.org/iuu-fishing/background/international-day-against-iuu-fishing/en/>, accessed on 27 May 2019.

aquaculture. The committee undertakes regular intersessional activities and encourages and facilitates the participation of observers including civil society organizations'.¹⁸³

South Africa as a member State participates in COFI sessions and addresses key issues including IUU fishing issues, highlighted above.¹⁸⁴ South Africa actively collaborates and cooperates with FAO bodies¹⁸⁵ and along with other States of the committee undertakes the above responsibilities. The committee is also actively involved in fisheries management including the development of domestic fishing legislation. Cooperation and information sharing was however highlighted as a shortcoming amongst the committee at its 33rd session, highlighted above. South Africa must address this shortcoming through mechanisms by RFMOs and inter-governmental organisations.¹⁸⁶

(b) Code of Conduct for Responsible Fisheries (The Code)

Within the FAO voluntary scheme, The Code, principles, standards and behaviours for responsible fisheries practices are set out with the goal of long-term conservation, management, sustainable use and the growth of living marine resources in the form of an action framework.¹⁸⁷ The Code was introduced in 1995 and was adopted voluntarily by more 170 members of the FAO.

The obligations required of States for The Code to be effective include that States must incorporate The Codes principles and goals into their national fisheries policies and legislation and consult with the fishing industry and other groups to support and encourage compliance with these incorporated legislative and policy changes. These policies must be developed with the cooperation of relevant groups and individuals such as environmental organisations, the fishing industry and those individuals who work with fisheries. Policies must be comprehensible and organised in a manner which allows for management of the States fisheries. Furthermore, States must encourage the fishing industry to implement codes of good

¹⁸³ FAO *Report of the Thirty-third Session of the Committee on Fisheries* (No 1249) Rome: COFI (2019) available at <http://www.fao.org/3/ca5184en/CA5184EN.pdf>, accessed on 23 May 2019.

¹⁸⁴ DAFF 'DAFF Officials participates at the FAO Committee on Fisheries (COFI), Sub-committee on Aquaculture held in Phuket, Thailand' available at <http://www.daff.gov.za/doaDev/articles/ArticleFAO.pdf> accessed on 12 July 2020.

¹⁸⁵ FAO 'South Africa and FAO' available at <http://www.fao.org/3/ax279e/AX279E.pdf>, accessed on 12 July 2020.

¹⁸⁶ FAO *Report of the Thirty-third Session of the Committee on Fisheries* (No 1249) Rome: COFI (2019) available at <http://www.fao.org/3/ca5184en/CA5184EN.pdf>, accessed on 23 May 2019.

¹⁸⁷ United Nations 'International Day for the Fight against Illegal, Unreported and Unregulated Fishing' available at <https://www.un.org/en/events/illegalfishingday/>, accessed on 30 May 2019.

practice which are consistent with The Code.¹⁸⁸ The Code also encourages the implementation of enforceable laws regarding fishing and fish processing. Destructive fishing practices must be prohibited in all States and only vessels permitted to fish in accordance with regulations and laws must be ensured in all States.¹⁸⁹ Education and training of fish farmers must be provided by States which will encourage their involvement in policies for sustainable fishing. The Code provides measures for the avoidance of overfishing including regulating the size of the fishing fleet and also encourages use of fishing gear which is safe and does not result in the catch of species which are endangered and by catch species.¹⁹⁰ The Code encourages the establishment of RFMOs where fishery conservation and management cooperation is necessary amongst States and fishery resources are shared amongst States. South Africa is party to several RFMOs discussed below in this chapter.¹⁹¹

In South Africa a Code of Conduct on Responsible Fisheries for fishing industries based on the FAOs principles has been developed through the Regional Fisheries Alliance (RFA)¹⁹² The RFA stated that ‘this serves as the basis to enable other fishing sectors to voluntarily draft their fishery-specific Codes of Conduct’.¹⁹³ Accordingly, industrial fishing bodies such as The South African Pelagic Fishing Industry Association (SAPFIA) adopted a Code of Conduct on Responsible Fisheries to achieve sustainable fishing.¹⁹⁴ The Code of Conduct on Responsible Fisheries are followed by SAPFIA through the adoption of several principles including conducting fishing operations in accordance with South Africa’s laws, regulations, international laws and conventions adopted by South Africa. According to Strydom, although The Code is voluntary it is nonetheless an influential policy document.¹⁹⁵ Strydom further states that many of the principles which underpin South Africa’s primary piece of legislation governing fisheries, the Marine Living Resources Act (MLRA)¹⁹⁶ reflects the objectives of The

¹⁸⁸ FAO ‘Code of Conduct for Responsible Fisheries’ available at <http://www.fao.org/tempref/docrep/fao/005/v9878e/v9878e00.pdf>, accessed on 13 July 2020.

¹⁸⁹ *Ibid.*

¹⁹¹ *Ibid.*

¹⁹² RFA ‘Industry Code of Conduct for Responsible Fishing’ available at <https://www.rfalliance.org.za/wp-content/uploads/2014/09/Code-of-Conduct-for-Responsible-Fisheries-29-01-2014-.pdf>, accessed on 16 July 2020.

¹⁹³ RFA ‘Fisheries Code of Conduct promotes responsible practice’ available at <https://www.rfalliance.org.za/projects/fisheries-code-of-conduct-promotes-responsible-practice/>, accessed on 12 July 2020.

¹⁹⁴ SAPFIA ‘Code of Responsible Fishing’ available at <https://sapfia.org.za/wp-content/uploads/2018/04/SAPFIA-Code-of-Responsible-Fishing-FINAL.pdf>, accessed on 13 July 2020.

¹⁹⁵ HA Strydom et al *Environmental Management in South Africa* (2009) 496.

¹⁹⁶ *Ibid.*

Code and the obligations imposed by The Code are encompassed in the MLRAs regulations and provisions.¹⁹⁷ Fisheries Cooperation is required and is a necessity amongst States by enacting the principles and framework from The Code into their legislation for the code to be effective. It is evident from the above that South Africa has carried out this notion and has incorporated the principles and standards of The Code.

(c) IPOA–IUU

Around 1999, due to the severity and extensive scope of IUU fishing there was greater momentum for efficiency in response to deter IUU fishing. Within two years the FAOs IPOA–IUU was adopted by COFI and has been elaborated within the framework of The Code.¹⁹⁸ This plan of action had explained the first extensive definition of IUU fishing. The term IUU fishing has quickly gained recognition and plans of action has been enforced to address IUU fishing by nations, global instruments, scholars and NGOs, since the IPOA–IUU strategy has been enacted.¹⁹⁹

The IPOA–IUU is one of the most effective global instruments to deter IUU fishing. The IPOA–IUU is a voluntary instrument and was approved by the 120th session of the FAO council.²⁰⁰ The IPOA–IUU, although a voluntary instrument, applies to all nations and relevant parties.

According to the IPOA–IUU illegal fishing is defined as:

‘Activities conducted by national or foreign vessels in waters under the jurisdiction of a State, without the permission of that State, or in contravention of their laws and regulations, conducted by vessels flying the flag of States that are parties to a relevant RFMO but operate in contravention of the conservation and management measures adopted by that organisation and by which the States are bound, or relevant provisions of the applicable international law, or in violation of national laws or international obligations, including those undertaken by cooperating States to a relevant RFMO’.²⁰¹

Unreported Fishing is defined as:

¹⁹⁷ *Ibid.*

¹⁹⁸ FAO ‘About IPOA-IUU’ available at <http://www.fao.org/fishery/ipoa-iuu/about/en>, accessed on 10 July 2020.

¹⁹⁹ MA Palma *Combating IUU Fishing: International Legal Developments* (2015) 73.

²⁰⁰ FAO ‘International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing’ available at <http://www.fao.org/3/a-y1224e.pdf>, accessed on 26 May 2019.

²⁰¹ *Ibid.*

‘Activities which have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations or undertaken in the area of competence of a relevant regional fisheries management organisation which have not been reported or have been misreported, in contravention of the reporting procedures of that organisation’.²⁰²

Unregulated Fishing is explained as:

‘Activities in the area of application of a relevant regional fisheries management organisation that are conducted by vessels without nationality, or by those flying the flag of a State not party to that organisation, or by a fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organisation or in areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in a manner inconsistent with State responsibilities for the conservation of living marine resources under international law’.²⁰³

The IPOA–IUU provides measures to States for deterrence, elimination and prevention of IUU fishing.²⁰⁴ The IPOA–IUU provides these measures to coastal States, market States and flag States which engage in fishing practices within jurisdictional coastal waters and the high seas.²⁰⁵ These measures include the application of a MCS system including the implementation of adequate tracking and recording of vessels, CDS, investigation of vessels at port landings and vessel registration and licensing processes.²⁰⁶ Further measures under the ‘all States responsibilities category’, include the application of global instruments and satisfying obligations in accordance with these instruments, the implementation of sanctions and policies as well as national legislation and plans of action.²⁰⁷

The IPOA–IUU, along with The Code, as voluntary instruments for deterrence of IUU fishing has been widely accepted by States.²⁰⁸ Voluntary instruments may be said to be easier in comparison to binding instruments as these ensure that there are no obstacles in place which hinder the use of these voluntary instruments by States, such as formalities or ratification of agreements. States may incorporate and adopt the IPOA–IUU principles, measures and

²⁰² *Ibid.*

²⁰³ *Ibid.*

²⁰⁴ See note 201 at 72.

²⁰⁵ *Ibid.*

²⁰⁶ *Ibid.*

²⁰⁷ *Ibid.*

²⁰⁸ Stop Illegal Fishing ‘COFI: The Committee on Fisheries’ available at <https://stopillegalfishing.com/events/cofi-committee-fisheries/>, accessed on 14 May 2019.

strategies within their coastal waters without ratification measures to ensure fishing compliance and effectively deter IUU fishing.

After the IPOA-IUU, initiatives to deter IUU fishing globally progressed. These include the 2002 UN World Summit on Sustainable Development²⁰⁹ where progress was reviewed in the last ten years since UNCED came in force. Agenda 21 was analysed, and discussions were made for improvement. The summit has acceded to the Johannesburg Plan of Implementation. The plan delved into concerns regarding fisheries including the reinstatement of depleted fishing stocks and initiation of representative networks.²¹⁰

South Africa has adopted the IPOA-IUU measures and principles within their fisheries framework. This is clear as the IPOA-IUU is incorporated into The Code, South Africa has applied the principles of The Code, pointed out above, into the MLRA. South Africa has adhered to the measures pointed out above required of States in accordance with the IPOA-IUU by implementing a MCS system including the tracking and recording of vessels which has been provided for in the MLRA and instituted by DAFF, discussed further in chapter three. CDS has also been incorporated in South Africa's system for deterrence of IUU, discussed below.

(d) Agreement on Port State Measures (PSMA)

PSMA consists of 62 member States including South Africa.²¹¹ The agreement is the first international binding agreement to particularly address IUU fishing²¹² and is considered to be a cost-effective agreement to curb IUU fishing.²¹³ PSMA provides port State measures to deter and eliminate IUU fishing by preventing vessels which engage in IUU fishing from entering ports and therefore preventing these IUU fishing stocks to be brought to land.²¹⁴ This means that these measures prevent IUU fishing stocks from reaching international and national markets, therefore, this contributes to sustainable fishing and effective management of fishing

²⁰⁹ Also known as the Johannesburg Earth Summit.

²¹⁰ FAO 'World summit on sustainable development 2002 and its implications for fisheries' available at <http://www.fao.org/3/y8294E/y8294E.htm>, accessed on 28 October 2019.

²¹¹ FAO 'Agreement on Port State Measures (PSMA)' available at <http://www.fao.org/port-state-measures/meetings/meetings-parties/en/>, accessed on 14 July 2020.

²¹² FAO Illegal, Unreported and Unregulated (IUU) fishing 'Agreement on Port State Measures (PSMA)' available at <http://www.fao.org/iuu-fishing/international-framework/psma/en/>, accessed on 28 May 2019.

²¹³ FAO 'Agreement on Port State Measures (PSMA)' available at <http://www.fao.org/port-state-measures/en/#:~:text=The%20Agreement%20on%20Port%20State,ports%20and%20landing%20their%20catches>, accessed on 14 July 2020.

²¹⁴ United Nations 'International Day for the Fight against Illegal, Unreported and Unregulated Fishing' available at <https://www.un.org/en/events/illegalfishingday/>, accessed on 30 May 2019.

stocks.²¹⁵ Member States are given the authority to deny the entry of vessels into their ports which are known to have engaged in IUU fishing.²¹⁶ States are furthermore given the authority to enquire information regarding the vessels name, flag State, registration and compliance with fishing regulations and permissions.²¹⁷

PSMAs success depends on several obligations undertaken by States, highlighted in the agreement. These include global participation and commitment to the deterrence of IUU fishing from nations which have signed the PSMA agreement, including South Africa,²¹⁸ as well as commitment in satisfying their obligations in accordance with the PSMA.²¹⁹ States must provide measures such as legislation in line with this agreement for deterrence of IUU fishing, effective MCS and compliance measures implementation of technology for the exchange of information and prevent IUU seafarers' entrance into ports, inspection of ports, implementation of adequate policies for deterrence of IUU fishing and provide effective measures for prosecuting offenders who engage in IUU fishing.²²⁰

South Africa has acceded to the PSMA agreement in 2016. Some of the busiest ports on the African continent exist in South Africa.²²¹ Therefore South Africa must play a crucial role in deterrence of IUU fishing which may occur from port services and illegal operators.²²² The control and management of these ports play a critical role in the deterrence of IUU fishing. As a member State South Africa has adopted PSMA measures domestically. Some of the measures which South Africa undertakes as a port State and which are contained in the MLRA, include all foreign flagged vessels to request a permit to enter South African jurisdictional waters.²²³ Prior to these vessels entering ports proof of reporting compliance required of the

²¹⁵ FAO: Illegal, Unreported and Unregulated (IUU) fishing 'Agreement on Port State Measures (PSMA)' available at <http://www.fao.org/iuu-fishing/international-framework/psma/en/>, accessed on 28 May 2019.

²¹⁶ The Africa Report 'Enough is enough. Africa Nations Must Unite against IUU fishing' available at <https://www.theafricareport.com/24619/enough-is-enough-african-nations-must-unite-against-illegal-fishing/amp/>, accessed on 16 July 2020.

²¹⁷ *Ibid.*

²¹⁸ FAO: Agreement on Port State Measures (PSMA) 'Parties to the PSMA' available at <http://www.fao.org/port-state-measures/background/parties-psma/en/>, accessed on 28 May 2019.

²¹⁹ The PEW Charitable Trusts 'The Port State Measures Agreement: From Intention to Implementation How an international treaty can help curb illegal, unreported and unregulated fishing' available at <https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2018/04/the-port-state-measures-agreement-from-intention-to-implementation>, accessed on 15 May 2019.

²²⁰ FAO 'Agreement on Port State measures to prevent, deter and eliminate illegal, unreported and unregulated fishing' available at <http://www.fao.org/3/i5469t/i5469t.pdf>, accessed on 14 July 2020.

²²¹ Stop Illegal Fishing 'South Africa accedes to the FAO Port State Measures Agreement' available at <https://stopillegalfishing.com/news-articles/south-africa-accedes-fao-port-state-measures-agreement/>, accessed on 10 July 2020.

²²² *Ibid.*

²²³ Marine Living Resources Act 18 of 1998 was amended by the Marine Living Resources Amendment Act 5 of 2014.

flag State must be furnished to authorities. If authorities are satisfied a permit will be allocated to the vessel.²²⁴ Further port control measures have already been incorporated into legislation prior to the adoption and signing of the PSMA. These include the MLRA namely section 42 which deals with foreign fishing vessels which are suspected to have engaged in an activity in contravention of an international conservation or management measure including when this vessel is voluntarily in the port of the Republic.²²⁵

South Africa carries out several measures and obligations in accordance with the PSMA by the South African Maritime Safety Authority (SAMSA). SAMSA carries out the role of the control of the States port to ‘to eliminate substandard ships from the region and threat they post to life, property and the marine environment’.²²⁶ SAMSA has carried out port State control inspections over the years with the latest figures from 2019 reflecting a total of 359 inspections, an increase from 353 in 2018, 142 deficiencies, a decrease of 34.2 percent in deficiencies from 2018, and 33 follow-up inspections.²²⁷ These inspections are in accordance with the principles of the PSMA and contribute to MCS, exchange of information, technology and compliance measures required of States accordingly. The decrease in the number of vessel deficiencies and increase in number of inspections also reflects an improvement in the control of ports.

South Africa is party to several RFMOs which deals with aspects of ports namely the Indian Ocean Memorandum of Understanding on Port State Control (IOMOU). IOMOU focuses on ‘regional cooperation for the countries on the Indian Ocean rim which would be the solution to control the plying of sub-standard ships in the region’.²²⁸ At the latest committee meeting in 2019 it was highlighted that South Africa is much more experienced in aspects such as maritime matters and port control as a higher number of ports in which vessel inspections are conducted than other States in the region, ‘South Africa must therefore increase its regional support of Indian Ocean rim countries in order to improve the general standard and level of control measures in place to maintain safety and security of the regions’ oceans’.²²⁹ South Africa as a party to RFMOs such as the IOMOU portrays that South Africa carries out cooperation measures required of the PSMA, the increased regional State support required of

²²⁴ *Ibid.*

²²⁵ *Ibid.*

²²⁶ SAMSA ‘Port State Control’ available at <http://www.samsa.org.za/Pages/Portstate-Control.aspx>, accessed on 20 July 2020.

²²⁷ *Ibid.*

²²⁸ SAMSA ‘South Africa called upon to increase support for Indian Ocean rim countries Port State controls’ available at <https://blog.samsa.org.za/2019/08/21/south-africa-called-upon-to-increase-support-for-indian-ocean-rim-countries-port-state-controls/>, accessed on 17 July 2020.

²²⁹ *Ibid.*

South Africa in accordance with the IOMOU portrays that the States port State control is at a higher advantage than other States and South Africa must use this advantage to support other States port control. Therefore the measures outlined above which is required of PSMA member States, has been satisfied by South Africa. In accordance with the RFMO, the Southern African Development Community (SADC) which South Africa party to, in the statement of commitment on IUU fishing the process for the development of a new legally binding instrument in accordance with the IPOA-IUU along with COFI and the PSMA was noted.²³⁰

(e) Catch Documentation Schemes and Voluntary Guidelines for Catch Documentation Schemes (VGCDs)

CDS are trade related measures for the prevention, elimination and deterrence of IUU fishing. In accordance with the report of the expert consultation on CDS schemes, FAO Fisheries and Aquaculture, CDS are defined as:

‘A system that tracks and traces fish from the point of capture throughout the supply chain. A CDS records and certifies information that identifies the origin of fish caught and ensures they were harvested in a manner consistent with relevant national, regional and international conservation and management measures. The objective of the CDS is to combat IUU fishing by limiting access of IUU fish and fishery products to markets’.²³¹

Therefore, CDS are MCS systems that can be employed by various nations and RFMOs to ensure fishing catches are in accordance with national, regional or international management mechanisms.²³² Since the year 2010, CDS has a great impact globally. Many States required a catch certificate authorised by the relevant flag State of the vessel by which the catch was taken otherwise has restricted entry into their markets.²³³ CDS is more productive in its interaction with other mechanisms such as the PSMA.²³⁴

²³⁰ SADC ‘Statement of Commitment’ available at https://www.sadc.int/files/8314/7306/3262/SADC_Statement_of_Commitment_on_IUU.pdf, accessed on 14 July 2020.

²³¹ FAO Globefish- Information and Analysis on World Fish Trade ‘Catch Documentation Schemes: Practices and applicability in combating IUU fishing’ available at <http://www.fao.org/in-action/globefish/fishery-information/resource-detail/en/c/426994/>, accessed on 3 June 2019.

²³² *Ibid.*

²³³ Francisco Blaha ‘Illegal, unreported and unregulated (IUU) fishing’ available at <http://www.franciscoblaha.info/new-page>, accessed on 2 June 2019.

²³⁴ FAO: Illegal, Unreported and Unregulated (IUU) fishing ‘Voluntary Guidelines for Catch Documentation Schemes’ available at <http://www.fao.org/iuu-fishing/international-framework/voluntary-guidelines-for-catch-documentation-schemes/en/>, accessed on 5 June 2019.

II

In addition to the above there are two fundamentally different CDS in existence. The first being multilateral schemes that have been enacted by different RFMOs.²³⁵ This type of CDS includes:

‘A CDS covering two species of Toothfish harvested in Antarctic waters, introduced in 2000 by CCAMLR, a CDS covering Atlantic Bluefin tuna, introduced in 2008 by the ICCAT and a CDS covering Southern Bluefin tuna, introduced in 2010 by the CCSBT’.²³⁶

It must be noted that South Africa is a party to the CCAMLR and the RFMOs ICCAT and CCSBT. CDS has been established for these species and therefore these CDS are applicable to these species within South Africa’s waters. CCAMLR and the role of South Africa in accordance with the commission was discussed above. The ICCAT and CCSBT are discussed below under RFMOs. The CDS which is implemented by these commissions are based on the commission’s rules and to be followed and complied with by all parties to the commission which engage in the trading, processing and fishing of these species. CDS is applied to these species under the commission’s area of competence.²³⁷ Within the area of competence of the CCSBT and the ICCAT IUU fishing causes primarily relate to underreporting by legal operators since the implementation of the CDS system. In accordance with the CCAMLR prior to the enactment of the CDS for Toothfish in the convention area, IUU fishing in this area has exceeded the total number of legal catches by greater than double the amount.²³⁸ According to the FAO multilateral CDS are ‘full-fledged fishery management tools’ which have the ability of deterring IUU fishing forms and lend to stock recovery and protection of the species should the CDS be well designed and consistently applied.²³⁹

The second type is a unilateral CDS which may implemented by a single State of a union of States.²⁴⁰ There is only one CDS of this type in existence, the European Union (EU) catch certification scheme which deals with all marine wild caught fish which are traded by countries which are not party to EU into the EU market.²⁴¹ South Africa is not a member State

²³⁵ FAO Globefish- Information and Analysis on World Fish Trade ‘Catch Documentation Schemes: Practices and applicability in combating IUU fishing’ available at <http://www.fao.org/in-action/globefish/fishery-information/resource-detail/en/c/426994/>, accessed on 3 June 2019.

²³⁶ *Ibid.*

²³⁷ *Ibid.*

²³⁸ *Ibid.*

²³⁹ *Ibid.*

²⁴⁰ *Ibid.*

²⁴¹ *Ibid.*

of the EU however, Thailand which is used as a comparative means in this dissertation is a member State of the EU which is further discussed in chapter four.

Compliance in accordance with multilateral CDS generally requires the State to carry out conservation and management action measures at port landings including obtaining validated catch documents which have been issued to fishing vessels and copies of documents concerning exports or re-exports issued or obtained by the vessel.²⁴² Shortcomings in the implementation of a multilateral CDS include lack of multilateral cooperation, high costs of implementation and reluctance of States to apply or partake in the scheme.²⁴³

In accordance with the CCSBT CDS South Africa carries out compliance and cooperation by attaching CDS centralised tags to the Southern Bluefin Tuna (SBT) species.²⁴⁴ According to the WWF at South African ports the CDS is implemented which traces the catch from landing to the point of sale to the end consumer.²⁴⁵ Furthermore, South Africa has developed a database for the input and extraction of CDS data.²⁴⁶ In accordance with the 2018 South African National Report to the Extended Scientific Committee of the CCSBT, the implementation of the database is aimed at the following:

‘Minimise data capturing errors, prevent invalid formats, prevent duplicates, ensure reproducibility of CDS reports, prevent version corruptions, increase data capturing efficiency, early identification of misreporting and to facilitate internal cross-validation with independent data streams (logbooks, landing declarations)’.²⁴⁷

In accordance with the shortcomings and challenges of the implementation of the CDS highlighted above, South Africa has implemented the database system and one of the factors which the database addresses is early identification of misreporting. IUU fishing by underreporting by legal operators was highlighted as a challenge by multilateral CDS. IUU fishing due to underreporting and misreporting of the fisheries catch are relatable and go hand

²⁴² WWF ‘Catch Documentation Scheme’ available at http://d2ouvy59p0dg6k.cloudfront.net/downloads/documentation_scheme_factsheet_1.pdf, accessed on 13 July 2020.

²⁴³ *Ibid.*

²⁴⁴ CCSBT ‘Monitoring, control and surveillance’ available at <https://www.ccsbt.org/en/content/monitoring-control-and-surveillance>, accessed on 11 July 2020.

²⁴⁵ S Peterson, P Mullins ‘WWF - Ecological Risk Assessment (ERA) Workshop for the Patagonian Toothfish Fishery’ available at http://awsassets.wwf.org.za/downloads/sa_patagonian_toothfishery_era.pdf, accessed on 14 July 2020.

²⁴⁶ CCSBT *South African National Report to the Extended Scientific Committee of the Commission for the Conservation of Southern Bluefin Tuna (ESC/1809)* South Africa: SBT Fisheries (2018) available at https://www.ccsbt.org/en/system/files/ESC23_SBT_Fisheries_ZA.pdf, accessed on 19 July 2020.

²⁴⁷ *Ibid.*

in hand. Furthermore, as highlighted above, the necessary port landing measures are carried out by the State in accordance with the multilateral CDS. These measures indicate that South Africa cooperates and partakes in the scheme.

The FAO developed the first international policy document which further discussed CDS in more detail. This is known as the VGCDS. The VGCDS formally came into effect at the 40th session of the FAO conference in July 2017.²⁴⁸ The VGCDS has resulted from a range of meetings including the 32nd session of COFI which took place in 2016.²⁴⁹ The goal of the VGCDS is to help States, international organisations, intergovernmental organisations, integration organisations and regional organisations in their application, evaluation and development of CDS systems.²⁵⁰

(f) Voluntary Guidelines for Flag State Performance (VGFSP)

All fishing vessels operating in international waters must be registered to a State being the flag State.²⁵¹ The VGFSP was adopted at the 31st session of COFI.²⁵² VGFSP is a mechanism which provides recommendations to reinforce and observe flag States international commitments in accordance with the flagging and management of fishing vessels.²⁵³ These guidelines also include the need for cooperation amongst coastal States and flag States as well as cooperation to assist developing States to combat IUU fishing.²⁵⁴ Flag States are required to keep reports on their authorisation to fish including the species of fish however, many vessels engage in IUU fishing by ‘flag hopping’ to avoid exposure of these illegal vessels.²⁵⁵ The VGFSP also makes recommendations to States to combat IUU fishing such as the use of VMS.²⁵⁶ Reporting and information exchange is encouraged amongst States such as the reporting of vessels which

²⁴⁸ FAO available at <http://www.fao.org/iuu-fishing/resources/detail/en/c/1132200/>, accessed on 2 June 2019.

²⁴⁹ *Ibid.*

²⁵⁰ *Ibid.*

²⁵¹ Stop Illegal Fishing ‘Fish –I –Africa’ available at https://stopillegalfishing.com/wp-content/uploads/2017/09/FISH-i_Africa_Our_future_WEB.pdf, accessed on 15 July 2020.

²⁵² FAO ‘Voluntary Guidelines for Flag State Performance’ available at <http://www.fao.org/iuu-fishing/international-framework/voluntary-guidelines-for-flag-state-performance/en/>, accessed on 7 June 2019.

²⁵³ *Ibid.*

²⁵⁴ FAO ‘Voluntary Guidelines on Flag State Performance’ available at <http://www.fao.org/fishery/topic/16159/en> accessed on 5 June 2019.

²⁵⁵ *Ibid.*

²⁵⁶ FAO Illegal, Unreported and Unregulated (IUU) fishing ‘Voluntary Guidelines for Flag State Performance’ available at <http://www.fao.org/iuu-fishing/international-framework/voluntary-guidelines-for-flag-state-performance/en/>, accessed on 7 June 2019.

engaged in IUU fishing so to prevent these vessels from being registered.²⁵⁷ Accordingly the VGFSP sets standards for flag States to help combat IUU fishing.²⁵⁸

According to the NGO Stop Illegal Fishing, South Africa is one of the flag States with smaller numbers of vessels.²⁵⁹ The VGFSP is however an important mechanism to be applied especially in South African waters as the State has been exposed to IUU fishing by other flag States and as a result of other States engaging in flag hopping.²⁶⁰ An example is the 2014 case of the *Der Horng 569 / Naham No. 4*. In this case the vessel known as the *Naham 4* and which was operating under the Oman flag was granted permission to dock in a South African port.²⁶¹ Upon inspection of the vessel by South African authorities it was found that the vessel has engaged in IUU fishing.²⁶² It was further uncovered by NGOs including FISH-I-Africa, that the vessels real name was the *Der Horng 569* which in fact has been flagged to Belize.²⁶³ Some of the measures which South Africa carries out which are in line with the guidelines include the inspection of port State vessels which include requesting relevant documentation of the vessel, highlighted under PSMA above, South Africa has also applied VMS which is discussed in chapter three and cooperates amongst States through the adoption of RFMOs and international commissions and conventions. However, it must be noted in accordance with the *Der Horng 569 / Naham No. 4* case NGOs had uncovered the true identity of the vessel instead of the South African authorities. This portrays the role that NGOs play in the fight against IUU fishing however, this also portrays that South Africa's authorities need to engage in further investigation in the case of flag States being granted permission in South Africa's maritime zones or when granted permission to dock at South African ports. The NGOs Greenpeace and the WWF and the role these NGOs play in the deterrence of IUU fishing is discussed below.

²⁵⁷ *Ibid.*

²⁵⁸ FAO 'Voluntary Guidelines on Flag State Performance' available at <http://www.fao.org/fishery/topic/16159/en> accessed on 5 June 2019.

²⁵⁹ Stop Illegal Fishing 'Fish –I –Africa' available at https://stopillegalfishing.com/wp-content/uploads/2017/09/FISH-i_Africa_Our_future_WEB.pdf, accessed on 15 July 2020.

²⁶⁰ House of Ocean 'Illegal Fishing and Vessel Identity Usurpation: Smoke and Mirrors or Dereliction of Duty?' available at <https://houseofocean.org/2014/08/14/illegal-fishing-and-vessel-identity-usurpation-smoke-mirrors-or-dereliction-of-duty/>, accessed on 12 July 2020.

²⁶¹ *Ibid.*

²⁶² *Ibid.*

²⁶³ *Ibid.*

(g) Challenges of the FAO

The FAO has identified several challenges weakening the potential to meet their goals.²⁶⁴ These include the need for effective national governance by States to address these challenges, this is regarded as a challenge by the FAO as States are required to implement policies at international and national levels to address the FAOs challenges and obtain their goals, the implementation of these policies is a challenge itself.²⁶⁵ The FAO asserted that given the fact that past performance of the implementation of policies by governments were ineffective and held flaws in implementation. Therefore, the FAO stressed that there is a need for combining different global demands and actions in policies to reach linked aims. There will be greater pressure on policy makers to incorporate other demands and initiatives in policies and therefore the need for different coordination and institutional plans meeting at different levels of government. These include combining measures which are from different levels of government together.²⁶⁶

2.4 Civil independent organisations

(a) The World Wide Fund for Nature (WWF)

WWF is an NGO²⁶⁷ which aims to build an equitable and sustainable future by ensuring the conservation of wildlife, endangered species and natural resources that are crucial to our well-being.²⁶⁸ After realisation that South Africa's biodiversity and ecosystems require conservation, the Southern African Wildlife Foundation was formed in 1968, this was later renamed to the Southern African Nature Foundation and finally in 1995 renamed to the World Wildlife Fund South Africa.²⁶⁹

²⁶⁴ FAO 'The future of food and agriculture Trends and challenges' available at <http://www.fao.org/3/a-i6583e.pdf>, accessed on 23 June 2019.

²⁶⁵ *Ibid.*

²⁶⁶ *Ibid.*

²⁶⁷ WWF 'Our History' available at https://www.wwf.org.za/our_story/our_history/, accessed on 6 June 2019.

²⁶⁸ WWF 'Our Commitment' available at https://www.wwf.org.za/our_story/our_commitment/, accessed on 23 May 2019.

²⁶⁹ WWF 'Our History' available at https://www.wwf.org.za/our_story/our_history/, accessed on 6 June 2019.

Globally the WWF fights against IUU fishing by providing measures for good governance, sustainable markets, responsible investments and partnerships.²⁷⁰ Good governance focuses on the encouragement of States to participate in MCS activities at sea, apply strong laws against IUU fishing and encouragement of States to work with RFMOs in the fight against IUU fishing.²⁷¹ In accordance with sustainable markets WWF ensures that fisheries products are being traded responsibly, sustainably and in absence of the contravention of any laws, for example in a manner that does not interfere with the livelihoods of those who rely on fisheries as a source of income and in a manner that provides food security.²⁷² In accordance with responsible investment WWF engages with private and public financial institutions and partners to contribute to sustainable fishing by funding the retrieval of long-term fisheries and encouraging the public to invest in sustainable fishing.²⁷³ WWF collaborates with many partners globally to fight against overfishing, unsustainable fishing and IUU fishing. By collaboration amongst these partners WWF aims to ensure seafood which is imported is fished sustainably and legally especially in giant fisheries importing nations by encouraging national laws and regulatory measures in States.²⁷⁴ Globally WWF holds fisheries conservation and marine work and supports sustainable fishing in accordance with the MSC initiative, the certification and labelling of seafood items as sustainably fished.²⁷⁵

While the WWF makes use of business, policy, people, partnership and science in achieving their objectives, WWFs work is not binding on States in a way that it is necessary for States and their governments to partake in the initiative. The participation of people is crucial to providing success to the WWF initiative. WWF works together with individuals and provides awareness, influence and education on their goals and the importance thereof which is crucial to the success of achieving these goals. As highlighted above WWFs work has played a crucial role in conservation, management and deterrence of IUU fishing. WWF being an initiative that is not binding on States requires persistence from their independent individual

²⁷⁰ WWF 'Why we need to act' available at

https://wwf.panda.org/our_work/oceans/smart_fishing/why_we_need_to_act/, accessed on 9 June 2019.

²⁷¹ WWF 'Good Governance' available at

https://wwf.panda.org/our_work/oceans/smart_fishing/how_we_do_this/good_governance2/, accessed on 5 June 2019.

²⁷² WWF 'Transforming Fisheries' available at https://wwf.panda.org/our_work/oceans/smart_fishing/, accessed on 6 June 2019.

²⁷³ WWF 'Responsible Investment' available at

https://wwf.panda.org/our_work/oceans/smart_fishing/how_we_do_this/responsible_fisheries_investment_new/, accessed on 4 June 2019.

²⁷⁴ WWF 'Overfishing' available at <https://worldwildlife.org/threats/overfishing>, accessed on 3 June 2019.

²⁷⁵ WWF 'Pirate Fishing' available at https://wwf.panda.org/ourwork/oceans/problems/illegal_fishing/, accessed on 5 June 2019.

members, policies, civil societies, stakeholders, businesses and partnerships in achieving their goals for decades to come to continue their legacy.

(b) Greenpeace

Greenpeace is committed to safeguarding the environment to ensure a ‘green’ world exists.²⁷⁶ The organisation aims to achieve this objective by fighting for environmental rights. Greenpeace advocates protesting, advertising, attending international environmental conferences and raising awareness amongst individuals in society regarding the importance of safeguarding the environment. Individuals volunteer globally to the organisation to help achieve their objective. The organisation currently exists in more than 40 countries²⁷⁷ and has around 2.8 million advocates globally. The organisation depends on money from donors such as charity organisations and individuals.

South Africa is home to Africa’s main Greenpeace office.²⁷⁸ Three major campaigns take place by Greenpeace Africa, these are forests, oceans, climate and energy.²⁷⁹ Within the ocean campaign, Greenpeace activists campaign to stop overfishing and theft of fish by looking for alternatives that support sustainability of marine life whilst ensuring food security for all, in Africa.²⁸⁰ Greenpeace advocates and takes initiatives to ensure African waters are well managed at a regional scale by calling for countries to participate in RFMOs.²⁸¹ Greenpeace supports the elimination of IUU fishing and destructive fishing, encourages MCS of fishing vessels, ocean reserves and sustainable fishing practices.²⁸²

Greenpeace is currently active and successful in obtaining their aims including the aim of the elimination of IUU fishing however, their activists sometimes resort to protests which may be a threat. For example, there was an incident in Slovakia where a company, known as the HornaUpper Nitra Mines, has seen twelve Greenpeace activists protesting peacefully with

²⁷⁶ Greenpeace ‘The history of Greenpeace’ available at <http://www.greenpeace.org/eastasia/about/history/>, accessed on 29 October 2019.

²⁷⁷ Greenpeace ‘About Greenpeace’ available at <https://www.greenpeace.org.uk/about/>, accessed on 7 June 2019.

²⁷⁸ Greenpeace ‘How Greenpeace was born’ available at <https://www.greenpeace.org/africa/en/historygreenpeaceafrica/>, accessed on 13 June 2019.

²⁷⁹ *Ibid.*

²⁸⁰ Greenpeace ‘What We Do Defending our Oceans’ available at <https://www.greenpeace.org/archive-africa/en/campaigns/Defending-Our-Oceans-Hub/>, accessed on 3 June 2019.

²⁸¹ *Ibid.*

²⁸² *Ibid.*

banners outside the company to end coal operations due to severe effects on climate change. Despite these protests being handled peacefully and without endangering society the protesters were charged criminally for interfering with the ‘operations of a facility of public interest’ due to these protests.²⁸³ Greenpeace is also an organisation which depends on volunteers, partners, businesses and funding to carry out their operations. There is no States responsibility in obtaining their aims. Therefore, Greenpeace need to continue to acquire the necessary support from individuals to stay active in obtaining their goals.

2.5 Conclusion

In accordance with the global framework discussed above, it is evident that there are many global instruments which carry out measures which contribute to conservation and protection of marine resources. This is crucial as these measures will contribute to deterrence of IUU fishing within coastal States such as South Africa. By implementing marine conservation measures, marine resources will be sustained, and depletion will be controlled from activities which prevent conservation of marine resources such as IUU fishing. Many instruments and initiatives are identified which contribute directly to deterrence of IUU fishing in South Africa’s maritime zones such as the FAOs IPOA-IUU. It is clear South Africa has carried out obligations in accordance with these instruments for the most part however, several challenges are identified which hinder the success of these instruments in achieving their goals. Common challenges identified include cooperation and collaboration including the sharing of resources and supporting other member States. These challenges need to be addressed by South Africa to ensure all obligations are met and for the successful deterrence of IUU fishing.

²⁸³ Greenpeace International ‘Greenpeace activists detained for peaceful protest’ available at <https://www.greenpeace.org/international/press-release/19614/greenpeace-activists-detained-for-peaceful-protest/>, accessed on 28 August 2019.

2.6 Regional Fisheries Management Organisations (RFMOs)

(a) Introduction

RFMOs are made up of several States which share a common interest practicality and/or financially in management and fisheries conservation within a region.²⁸⁴ Some RFMOs focus on fisheries within a certain region whilst others focus on a large area for specific highly migratory fisheries such as the tuna species. States within the geographical region prescribed by that RFMO may join the organisation. RFMOs may prescribe regulations which are binding on member States regarding fisheries and issues such as total allowable catches (TACs) and MCS measures.²⁸⁵ RFMOs furthermore, develop and provide management measures in accordance with scientific management plans, data approaches, policies, regulations, tools and technology to assist with the regulation of fishing stocks, reduce overfishing and destructive fishing, ensure marine protection and biodiversity and help with the reduction of IUU fishing.²⁸⁶

RFMOs which South Africa is a member State and exists with one of the purposes of deterring IUU fishing or relates to IUU fishing, include: the ICCAT,²⁸⁷ Southern African Development Community (SADC),²⁸⁸ Indian Ocean Tuna Commission (IOTC),²⁸⁹ Indian Ocean Rim Association (IORA),²⁹⁰ New Partnership for Africa's Development (NEPAD),²⁹¹ South West Indian Ocean Fisheries Commission (SWIOFC),²⁹² Benguela Current Convention (BCC),²⁹³ Commission for the Conservation of Southern Bluefin Tuna (CCSBT)²⁹⁴ and the

²⁸⁴ The PEW charitable trusts 'FAQ: What is a regional fisheries management organization' available at <https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2012/02/23/faq-what-is-a-regional-fishery-management-organization>, accessed on 24 June 2019.

²⁸⁵ European Commission 'Regional fisheries management organisations (RFMOs)' available at https://ec.europa.eu/fisheries/cfp/international/rfmo_en, accessed on 28 October 2019.

²⁸⁶ The Ocean Conference 'Concept paper - Partnership dialogue 4: Making fisheries sustainable' available at <https://sustainabledevelopment.un.org/content/documents/14418Partnershipdialogue4.pdf>, accessed on 23 May 2019.

²⁸⁷ International Convention for the Conservation of Atlantic Tunas, 14 May 1966, 673 UNTS 63, 21 March 1969.

²⁸⁸ Treaty of the Southern African Development Community, 17 August 1992, 32 ILM 116, 5 October 1992.

²⁸⁹ Indian Ocean Tuna Commission, 25 November 1993, 1927 UNTS 329, 27 March 1996.

²⁹⁰ IORA 'Indian Ocean Rim Association' available at <https://www.iora.int/en>, accessed on 28 August 2019.

²⁹¹ NEPAD 'NEPAD in brief' available at <https://www.nepad.org/publication/nepad-brief>, accessed on 22 August 2019.

²⁹² FAO 'Southwest Indian Ocean Fisheries Commission (SWIOFC)' available at <http://www.fao.org/fishery/rfb/swiofc/en>, accessed on 23 August 2019.

²⁹³ Benguela Current Commission 'Benguela Current Commission, three countries sharing a productive ecosystem' available at https://www.benguelacc.org/index.php/en/component/docman/doc_download/695-signed-benguela-current-convention-english, accessed on 29 August 2019.

²⁹⁴ Commission for the Conservation of Southern Bluefin Tuna, 10 May 1993, 1819 UNTS 360, 20 May 1994.

African Charter on Maritime Security and Safety and Development in Africa (Lomé Charter).²⁹⁵

(b) International Commission for the Conservation of Atlantic Tunas (ICCAT)

ICCAT is an intergovernmental RFMO which consists of 48 member parties.²⁹⁶ South Africa is a founding member party of the ICCAT.²⁹⁷ The commission was founded by the Convention for the Conservation of Atlantic Tunas and its area of competence is the ‘waters of the Atlantic Ocean, including the adjacent seas’.²⁹⁸ ICCAT has the objective of ensuring conservation and sustainability of fishing stocks particularly tunas and species alike within these regional maritime zones. In order to achieve this objective ICCAT conducts research on species of tuna populations including ‘research on the abundance, the oceanography of their environment and the effects of natural and human factors upon their abundance’.²⁹⁹ ICCAT has also developed allocation criteria for the purpose of allocating State quotas for tuna species.³⁰⁰

Member parties, various institutions and panels work together to carry out research, data collection and make recommendations to assist the organisation in obtaining their goal. The organisation also carries out other measures in working towards their objective including decreasing the number of joint fishing functionaries, suspending fishing operations in the case of threatened tuna fish stocks and shortening the fishing season.³⁰¹ The commission also works jointly with the FAO and other UN agencies to exchange information to achieve their objectives. ICCAT holds annual meetings and at ICCATs 2018 meeting the ‘recommendation by ICCAT on establishing a list of vessels presumed to have carried out IUU fishing activities’

²⁹⁵ AU ‘African Charter on Maritime Security and Safety and Development in Africa (Lomé Charter)’ available at https://au.int/sites/default/files/treaties/37286-treaty-0060_-_lome_charter_e.pdf, accessed on 27 August 2019.

²⁹⁶ International Waters Governance ‘International Commission for the Conservation of Atlantic Tunas (ICCAT)’ available at <http://www.internationalwatersgovernance.com/international-commission-for-the-conservation-of-atlantic-tunas-iccat.html>, accessed on 28 June 2019.

²⁹⁷ SADSTIA ‘Reversing Overfishing of Tropical Tunas – SA’s Role’ available at <https://www.fishingindustrynewssa.com/2019/12/11/reversing-overfishing-of-tropical-tunas-sas-role/>, accessed on 18 July 2020.

²⁹⁸ *Ibid.*

²⁹⁹ *Ibid.*

³⁰⁰ ‘ICCAT’ available at <https://www.nda.agric.za/doaDev/sideMenu/Biosecurity/docs/international/iccat.html>, accessed on 13 July 2020.

³⁰¹ International Waters Governance ‘International Commission for the Conservation of Atlantic Tunas (ICCAT)’ available at <http://www.internationalwatersgovernance.com/international-commission-for-the-conservation-of-atlantic-tunas-iccat.html>, accessed on 28 June 2019.

³⁰¹ *Ibid.*

was heard.³⁰² MCS implementation was approved including the development of the IUU vessel list, port State measures and VMS.³⁰³ The IUU vessel list is made public on the ICCAT website.³⁰⁴

The challenges which are faced by the ICCAT include that there are several parties to the ICCAT which are unable to meet their responsibilities in accordance with the ICCAT.³⁰⁵ Several member States are unable to provide protection to species which are specifically covered for protection in accordance with the ICCAT.³⁰⁶ Other challenges include errors in MCS data by the CPCs (contracting party and cooperating non-contracting party).³⁰⁷ According to an ICCAT performance review, especially within the region of the Atlantic and Mediterranean Sea, the performance of CPCs in providing protection to ICCATs species, including the Bluefin tuna, has been very poor. CPCs do not provide enough transparency in their efforts. The ICCAT also does not provide enough translucency in their decisions and stock allowances.³⁰⁸ These challenges can be resolved should CPCs accord and commit to their responsibilities in accordance with the ICCAT. CPCs must also adhere to all recommendations and regulations of the ICCAT.

However, South Africa's membership of the ICCAT is of great significance as the priority themes covered by the ICCAT has a direct impact on South Africa including measures to combat IUU fishing.³⁰⁹ In accordance with the ICCAT South Africa must exercise their right to their fishery resources including tuna fisheries and protect their resources against industrialised States such and distant water fleets particularly those involved in IUU fishing in the Southern Atlantic Ocean.³¹⁰ The National Development Agency (NDA) stressed the importance of South Africa partaking in resolutions and recommendations by the ICCAT as non-compliance could result in punitive trade measures being implemented against South

³⁰² ICCAT 'IUU Vessel List' available at <https://www.iccat.int/en/IUUlist.html>, accessed on 28 June 2019.

³⁰³ ICCAT 'ICCAT Press Release' available at https://www.iccat.int/Documents/Meetings/COMM2018/PRESS_RELEASE_ENG.pdf, accessed on 28 June 2019.

³⁰⁴ ICCAT 'IUU Vessel List' available at <https://www.iccat.int/en/IUUlist.html>, accessed on 28 June 2019.

³⁰⁵ ICCAT 'Approach to a second performance review of ICCAT' available at https://www.iccat.int/intermeetings/Performance_rev/ENG/PER_FINAL_TOR_ENG.pdf, accessed on 27 August 2019.

³⁰⁶ *Ibid.*

³⁰⁷ *Ibid.*

³⁰⁸ *Ibid.*

³⁰⁹ 'ICCAT' available at <https://www.nda.agric.za/doaDev/sideMenu/Biosecurity/docs/international/iccat.html>, accessed on 13 July 2020.

³¹⁰ *Ibid.*

Africa.³¹¹ The NDA furthermore, recognises that South Africa plays a crucial role in the development of allocation criteria in accordance with the ICCAT to ensure fair and equitable allocations of State quotas to developing coastal States.³¹²

South Africa has carried out recommendations and resolutions of the ICCAT. In 2019 ICCAT meeting South Africa has delegated a new management regime in accordance with the ICCAT. South Africa has led negotiations and implemented this management regime in accordance with the ICCAT's scientific body. The management regime for the Tuna species by the ICCAT was considered to be ineffective prior to the implementation of the management regime delegated by South Africa.³¹³ The new management regime for tropical tunas entails some of the following measures:

‘A reduction in catch limit for big eye tuna from 78000 tons per year to 62500 tons in 2020, and a further cut to 61 500 in 2021. Furthermore, the number of fish aggregating devices (FADs) that may be deployed by fishing nations using purse seine nets to catch tropical tunas, has been reduced from 500 per vessel to 350 per vessel in 2020, and 300 per vessel in 2021. FADs are used to attract and aggregate shoals of tuna and other deep-sea fish such as marlin. A significant increase in the number of scientific observers deployed on longline and purse seine fishing vessels in the Atlantic Ocean and the complete closure of the Atlantic Ocean to FAD-associated tuna fishing by purse seine vessels for two months in 2020 and three months in 2021’.³¹⁴

Accordingly South Africa has partaken in the development of allocation criteria in accordance with the ICCAT and was commended for this action.³¹⁵ Furthermore, South Africa's delegates of the ICCAT including has been instrumental in carrying out measures in accordance with the commission namely drafting recommendations for tropical tuna species,

³¹¹ *Ibid.*

³¹² *Ibid.*

³¹³ IOL ‘Call to stop the overfishing of tuna’ available at <https://www.iol.co.za/capeargus/news/call-to-stop-the-overfishing-of-tuna-39645941>, accessed on 14 July 2020.

³¹⁴ SADSTIA ‘Reversing Overfishing of Tropical Tunas – SA’s Role’ available at <https://www.fishingindustrynewssa.com/2019/12/11/reversing-overfishing-of-tropical-tunas-sas-role/>, accessed on 18 July 2020.

³¹⁵ *Ibid.*

for several years.³¹⁶ South Africa is also committed and cooperates as a CPC to the protection and conservation of tunas, The Deputy Director of DAFF has stated:

‘South Africa will continue its staunch efforts and leadership to work towards a meaningful agreement that ensures the commission lives up to its mandate to ensure the long-term sustainability of highly migratory tunas and tuna-like species. We urge other governments to come to the meeting with a collaborative attitude to work towards the protection of our common tropical tuna resources’.³¹⁷

South Africa despite being a successful CPC of the ICCAT must continuously address the challenges faced by the ICCAT, outlined above, in order to fully combat IUU fishing of the tuna species and species alike in the region.

(c) Southern African Development Community (SADC)

SADC is an intergovernmental regional organisation³¹⁸ which consists of fourteen members States including South Africa.³¹⁹ According to Article five of the SADC treaty, SADCs goals include sustainable development and protection of the environment.³²⁰ SADC deals with many themes and issues to achieve this aim including natural resources including marine living resources.³²¹

SADCs Protocol on Fisheries is promoted by SADCs regional States and has the goal of endorsing responsible and sustainable use of fisheries and marine ecosystems with the result of:

‘Promoting and enhancing food security, safeguarding the livelihood of fishing communities, generating economic opportunities from nationals in the region, ensuring

³¹⁶ IPNLF ‘It’s time for ICCAT to deliver meaningful change’ available at <http://ipnlf.org/news/its-time-for-iccat-to-deliver-meaningful-change>, accessed on 20 July 2020.

³¹⁷ *Ibid.*

³¹⁸ SADC ‘History and Treaty’ available at <https://www.sadc.int/about-sadc/overview/history-and-treaty/>, accessed on 23 October 2019.

³¹⁹ SADC ‘Background’ available at <https://www.nda.agric.za/doiDev/topMenu/interEngagements/SADC.htm>, accessed on 3 July 2019.

³²⁰ SADC ‘SADC objectives’ available at <https://www.sadc.int/about-sadc/overview/sadc-objectiv/>, accessed on 2 July 2019.

³²¹ SADC ‘Fisheries’ available at <https://www.sadc.int/themes/natural-resources/fisheries/>, accessed on 5 July 2019.

that future generations benefit from these renewable resources and alleviating poverty with the ultimate objective of its eradication’.³²²

The protocol centres around five topics: aquaculture, management of shared fisheries resources, combating IUU fishing, small-scale/artisanal fisheries and fish trade.³²³ SADC member States have signed the statement of commitment to combat IUU fishing in 2008. This statement aims to achieve the strengthening of regional and inter-regional partnerships to deter IUU fishing, the reinforcement of marine life monitoring and legal standing to deter IUU fishing and the development of regional measures in relation to IUU fishing.³²⁴ The SADC fisheries programme guides SADC member States and partner organisations on the priority projects and interventions towards the implementation of the Protocol on fisheries.³²⁵

As of 2020 eight member States of SADC including South Africa has resolved to develop a strategy to combat IUU fishing. The strategy is an action plan on MCS methods to combat IUU fishing of marine and inland fisheries of the State.³²⁶ The strategy is also aimed at sustainable fishing operations and is a cost effective method to manage shared marine and inland fisheries amongst States of the region.³²⁷ Alongside the development of this strategy is the development of a Regional Fisheries Monitoring Control and Surveillance Coordination Centre (MCSCC) to be established under the WWF.³²⁸ This development will intensify and coordinate compliance and enforcement attempts for the purpose of deterrence of IUU fishing³²⁹ and will furthermore, serve as a coordinated practice which eliminates any loopholes which may sustain illicit fishing operations amongst States in the region.³³⁰ South Africa is one

³²² *Ibid.*

³²³ *Ibid.*

³²⁴ SADC ‘Statement of commitment by SADC ministers responsible for marine fisheries on illegal, unreported and unregulated fishing’ available at https://www.sadc.int/files/8314/7306/3262/SADC_Statement_of_Commitment_on_IUU.pdf, accessed on 6 July 2019.

³²⁵ SADC ‘Fisheries’ available at <https://www.sadc.int/themes/natural-resources/fisheries/>, accessed on 13 July 2020.

³²⁶ Seafood Source ‘SADC states developing joint strategy to combat IUU’ available at <https://www.seafoodsource.com/news/environment-sustainability/sadc-states-developing-joint-strategy-to-combat-iuu>, accessed on 13 July 2020.

³²⁷ *Ibid.*

³²⁸ *Ibid.*

³²⁹ DAFF ‘Agriculture, Forestry and Fisheries on fighting Illegal, Unregulated and Unreported (IUU) fishing’ available at <https://www.gov.za/speeches/agriculture-forestry-and-fisheries-fighting-illegal-unregulated-and-unreported-iuu-fishing>, accessed on 13 July 2020.

³³⁰ Seafood Source ‘SADC states developing joint strategy to combat IUU’ available at <https://www.seafoodsource.com/news/environment-sustainability/sadc-states-developing-joint-strategy-to-combat-iuu>, accessed on 13 July 2020.

of the States which has ratified the proposal for the establishment of a MCSCC to handle challenges in the fishing sector ‘through strengthened regional collaboration and partnerships with relevant stakeholders so as to produce mitigating ecological and socio-economic impacts.’³³¹ DAFF will play a crucial role in the establishment of SADCs MCSCC.³³²

Challenges concerned with SADC include the setting of overreaching goals such as the goal of ensuring trade is 100 percent liberal by the year 2012, this goal was never obtained and far reached.³³³ Multiple and concurrent membership with other similar organisations is also an issue, this causes uncertainty, rivalry and indecisiveness as well as tax implications, for example South Africa is a member State to Southern African Customs Union (SACU) and SADC which aim to achieve similar goals.³³⁴ The presence of member States of different economic progression backgrounds within the SADC region means imbalances and inequalities, such that the better economies such as South Africa dominate and dictate rules of SADC to the countries of lower economic backgrounds.³³⁵ South Africa accounts for more than 60 percent of SADCs trade and roughly 70 percent of SADCs GDP. Therefore no regionalism is present.³³⁶ SADC is productive in their IUU fishing deterrence attempts however has recognised the challenge of a lack of MCS mechanisms by member States which cause a hindrance to deterrence of IUU fishing.³³⁷ The SADC region is also experiencing challenges with regards to factors such as fish diseases, limited funding and technical skills and the diminishing of fishing stocks in the region due to challenges with IUU fishing including the lack of capacity to manage fishing stocks.³³⁸ SADC and member States need to address all the challenges as highlighted above for SADC to function productively in achieving all their goals.

³³¹ *Ibid.*

³³² DAFF ‘Agriculture, Forestry and Fisheries on fighting Illegal, Unregulated and Unreported (IUU) fishing’ available at <https://www.gov.za/speeches/agriculture-forestry-and-fisheries-fighting-illegal-unregulated-and-unreported-iuu-fishing>, accessed on 13 July 2020.

³³³ J Mapuva, LM Mapuva ‘The SADC regional bloc: What challenges and prospects for regional integration?’ available at http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S2077-49072014000100002, accessed on 24 August 2019.

³³⁴ *Ibid.*

³³⁵ *Ibid.*

³³⁶ *Ibid.*

³³⁷ Stop Illegal Fishing ‘Illegal fishing deprives SADC states of revenues’ available at <https://stopillegalifishing.com/press-links/illegal-fishing-deprive-sadc-states-of-revenues-2/>, accessed on 25 August 2019.

³³⁸ SADC ‘Fisheries’ available at <https://www.sadc.int/themes/natural-resources/fisheries/>, accessed on 20 July 2020.

Despite the shortcomings faced by SADC due to South Africa being as a member State of SADC, highlighted above, South Africa still plays a crucial role in taking the instrument forward. South Africa has also regarded the Southern African region as the most significant priority since its democracy and furthermore South Africa also regards cooperation amongst the Southern African region as a priority.³³⁹ To illustrate these points, one of the first policies adopted by the South African government was a framework for Cooperation in Southern Africa.³⁴⁰ South Africa has joined SADC to further these objectives. South Africa has played a front line role in taking the instrument forward by addressing issues and challenges faced by the region and by participating in the activities of SADC.³⁴¹ South Africa has addressed issues such as collaboration and economic integration and has focused on regional cooperation in accordance with factors such as socio-economic development and sustainable regional economic growth.³⁴² South Africa also established a free trade area within the region and has encouraged capacity, good governance and democracy amongst States in the region. South Africa is also known to be an active participant in SADCs meetings and conferences.³⁴³

(d) Indian Ocean Tuna Commission (IOTC)

The IOTC is an intergovernmental commission which consists of 31 member States (CPCs) including South Africa.³⁴⁴ The commission deals with conservation and management of the tuna species within this region and also encourages sustainable development and cooperation amongst member and non-member States in order to achieve the commission's conservation and management objectives.³⁴⁵ The IOTC uses four main criteria consisting of their responsibilities and functions to achieve their aims: evaluate trends and conditions of fishing stocks as well as analyse scientific information and tuna populations including data regarding conservation and management of these species, encourage research participation with regards to fisheries covered by the commission and participation in activities of the commission by member States, encourage member States to adopt management and conservation measures to ensure sustainability of fishing stocks within this region, evaluate the social and economic

³³⁹ Department; International cooperation and development 'History and Present status' available at <http://www.dirco.gov.za/foreign/Multilateral/africa/sadc.htm>, accessed on 20 July 2020.

³⁴⁰ *Ibid.*

³⁴¹ *Ibid.*

³⁴² *Ibid.*

³⁴³ *Ibid.*

³⁴⁴ IOTC 'Structure of the commission' available at <https://www.iotc.org/about-iotc/structure-commission>, accessed on 29 June 2019.

³⁴⁵ IOTC 'The commission' available at <https://www.iotc.org/node/1>, accessed on 27 June 2019.

characteristics of fisheries stocks as covered by the commission and with regards to the interests of member States.³⁴⁶

CPCs, when in possession of information regarding vessels which have engaged in IUU fishing within the IOTCs area of competence must hand over a list of names of these vessels on which information they possess to the executive secretary of the IOTC.³⁴⁷ This information must be handed within the 24 months prior to the next annual meeting of the IOTC compliance committee, however within a period of 70 days prior to the next annual meeting.³⁴⁸ A form must be filled and handed in known as the IOTC reporting form for illegal activity.³⁴⁹ The IOTCs IUU fishing list of vessels is made publicly available on the IOTC website.³⁵⁰ This list is also given to other RFMOs and organisations such as the FAO and information is exchanged for the purposes of increased cooperation amongst these organisations.³⁵¹

The IOTC is challenged with the lack of implementation by member States to meet their goals.³⁵² In accordance with the International Pole & Line Foundation (IPNLF) there are critical challenges which the IOTC need to address to meet their targets successfully.³⁵³ These include the failure of the commission to address the harvest control rule for the skipjack tuna further.³⁵⁴ The IPNLF asserted that the commission need to ‘establish a framework of robust management measures’ to get back on track, furthermore the IOTC must upgrade management procedures for ‘drifting fish aggregating devices’, introduce plans of action regarding the harvest of these fisheries as well as the recovery of these fisheries, provide better MCS data mechanisms and introduce cooperative and compliance mechanisms of member States in a manner that recognises the rights and conditions of these States.³⁵⁵

³⁴⁶ *Ibid.*

³⁴⁷ IOTC ‘VESSELS’ available at <https://www.iotc.org/vessels>, accessed on 28 June 2019.

³⁴⁸ *Ibid.*

³⁴⁹ *Ibid.*

³⁵⁰ *Ibid.*

³⁵¹ *Ibid.*

³⁵² South African Government ‘Agriculture, Forestry and Fisheries on 23rd Indian Ocean tuna commission’ available at <https://www.gov.za/speeches/indian-ocean-tuna-13-jun-2019-0000>, accessed on 23 August 2019.

³⁵³ Undercurrent News ‘Tuna pole-and-line group challenges IOTC to ‘get back on track’ available at <https://www.undercurrentnews.com/2019/06/12/tune-pole-and-line-group-challenges-iotc-to-get-back-on-track/>, accessed on 23 August 2019.

³⁵⁴ *Ibid.*

³⁵⁵ *Ibid.*

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South Africa has taken steps to address these challenges and follow their responsibilities in accordance with the commission. South Africa has been an active participator in meetings of the IOTC including the latest 23rd session. DAFF has submitted four proposals for review at this session. These are, an interim plan for rebuilding the Indian Ocean yellowfin tuna stock, vessel chartering in the IOTC area of competence, concerning a record of licenced foreign vessels fishing for IOTC species in the IOTC area of competence and access agreement information and a proposal for the allocation of fishing opportunities for IOTC species.³⁵⁶ The last proposal was a result of cooperation and collaboration amongst the G16 States, spanning several decades.³⁵⁷ According to DAFF:

‘The discussion of this proposal is long overdue, in particular given the levels of overfishing of the yellowfin tuna stock in the Indian Ocean and a clear indication of the ineffectiveness of the current management regime. Limiting or reducing catches of the overfished yellow tuna by large industrialized fleets cannot be done by capacity limitation or vague measures requesting countries to limit their catches but must be done via an allocation of fishing rights.’³⁵⁸

Furthermore, DAFF has stated that South Africa is quickly made a positive effect with regards to the promotion and recognition of the rights of coastal developing States and plays a crucial role in leading the way along with the G16 States.³⁵⁹

As highlighted, the IOTC faces challenges due to the lack of measures, management procedures, compliance and cooperative mechanisms by member States. However, it is clear from the above that South Africa attends and actively participates in meetings of the IOTC. South Africa also cooperates with G16 States in the development of proposals. The State therefore, displays the attribute of cooperation in a manner to take the commission forward. South Africa also submits proposals to the IOTC. In this manner South Africa contributes to

³⁵⁶ *FAO Report for the 23rd session of the Indian Ocean Tuna Commission (S23)* Hyderabad: FAO IOTC (2018) available at https://www.iotc.org/sites/default/files/documents/2019/10/IOTC-2019-S23-RE_Rev1_FINAL.pdf, accessed on 12 July 2020.

³⁵⁷ DAFF ‘Agriculture, Forestry and Fisheries on 23rd Indian Ocean tuna commission’ available at <https://www.gov.za/speeches/indian-ocean-tuna-13-jun-2019-0000>, accessed on 13 July 2020.

³⁵⁸ Stop Illegal Fishing ‘South Africa backs allocation of fishing quotas at IOTC meeting’ available at <https://stopillegalfishing.com/press-links/south-africa-backs-allocation-of-fishing-quotas-at-iotc-meeting/>, accessed on 13 July 2020.

³⁵⁹ DAFF ‘Agriculture, Forestry and Fisheries on 23rd Indian Ocean tuna commission’ available at <https://www.gov.za/speeches/indian-ocean-tuna-13-jun-2019-0000>, accessed on 13 July 2020.

the closure of the lack of measures challenge of the IOTC. South Africa is also instrumental in the development of a system for the allocation of IOTC species. This contributes to the management and protection of IOTC species and therefore deterrence of IUU fishing of these species. South Africa as a nation is accordingly known to be a respected member of the tuna RFMOs. The final tuna RFMO of South Africa, the CCSBT is discussed below.

(e) Indian Ocean Rim Association (IORA)

The IORA is an intergovernmental organisation which consists of 22 member States and nine dialogue partners which reinforce sustainable development and regional cooperation within the Indian Ocean region.³⁶⁰ The IORA was first established as the Indian Ocean Rim Association for Regional Cooperation (IOR-ARC).³⁶¹ Former President of South Africa, Nelson Mandela, played a key role in the establishment of the IOR-ARC.³⁶² The IOR-ARC was established for the purpose of strengthening socio-economic and regional cooperation amongst States along the Indian Rim.³⁶³ According to Wagner, despite initial enthusiasm around the IOR-ARC the association has underperformed in enhancing regional cooperation.³⁶⁴ In 2013 the IOR-ARC was renamed to the IORA with the intention of breaking away from the associations past by bringing more focus to the agenda.³⁶⁵ The IORA has accordingly established six priority areas including maritime safety and security. South Africa is a member State to the IORA. The IORA initiated the IORA action plan 2017–2021 which is aimed at strengthening the blue economy and cooperation in the fisheries management sector.³⁶⁶ In accordance with this initiative member States are addressing key issues including:

³⁶⁰ Indian Ocean Rim Association available at <https://www.iora.int/en>, accessed on 17 May 2019.

³⁶¹ SAIIA ‘South Africa’s Indian Ocean Rim Association Legacy: A More Inclusive and Open IORA’ available at <https://saiia.org.za/research/south-africas-indian-ocean-rim-association-legacy-a-more-inclusive-and-open-iora/#>, accessed on 20 July 2020.

³⁶² *Ibid.*

³⁶³ *Ibid.*

³⁶⁴ C Wagner ‘The Indian Ocean Rim Association for Regional Co-operation (IOR-ARC): The futile quest for regionalism?’ (2013) Vol. 9 No. 1 *Journal of the Indian Ocean* 6-16.

³⁶⁵ SAIIA ‘South Africa’s Indian Ocean Rim Association Legacy: A More Inclusive and Open IORA’ available at <https://saiia.org.za/research/south-africas-indian-ocean-rim-association-legacy-a-more-inclusive-and-open-iora/#>, accessed on 20 July 2020.

³⁶⁶ IORA ‘Fisheries Management’ available at <https://www.iora.int/en/priorities-focus-areas/fisheries-management>, accessed on 18 May 2019.

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‘Seafood products safety and quality, seafood handling, post-harvest processing, storage of fisheries and aquaculture products, banking and artisanal fisheries, sustainable management and development of fisheries resources and fisheries trade’.³⁶⁷

IORAs fisheries support unit addresses matters in the fisheries sector and does this by acting as a regional centre for knowledge for member States. The responsibility of member States is to cooperate with each other in fisheries management development regionally. Member States must also search for methods to detach obstacles amongst fisheries management processes including partnership agreements, engage between private sectors, science and policy.³⁶⁸

According to the SAIIA policy briefing from 2018, the effectiveness of the IORA as an association which embodies cooperation in the Indian Rim is hindered by capacity constraints and areas of the design and principles of the association.³⁶⁹ These include the member driven approach which has caused a lack of ‘continuity, integration and focus’ on the association’s activities. Furthermore, despite the IORA initiatives discussed above, according to the briefing, although maritime safety and security is on the IORAs agenda the focus has been on less controversial issues such as search and rescue.³⁷⁰ In addition to these there are challenges that are faced by the IORA which include the presence of developing member States without the necessary resources to meet the IORAs goals, the presence of a large area that need to be dealt with, and where there are many nations without influential heads of State, in this circumstance influential heads of other States are ruled out as other States are excluded from being party to the IORA. These challenges must be addressed by member States, States must involve businesses, partners and stakeholders to help with deterrence efforts. Member States must also cooperate in their implementation efforts.³⁷¹

³⁶⁷ *Ibid.*

³⁶⁸ *Ibid.*

³⁶⁹ SAIIA ‘South Africa’s Indian Ocean Rim Association Legacy: A More Inclusive and Open IORA’ available at <https://saiia.org.za/research/south-africas-indian-ocean-rim-association-legacy-a-more-inclusive-and-open-iora/#>, accessed on 20 July 2020.

³⁷⁰ *Ibid.*

³⁷¹ M Islam ‘Indian Ocean Rim Association (IORA) An Assessment’ (2017) Vol. 38 No. 2 *Biiss Journal*, 20.

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During the period 2017 to 2019 South Africa has served as chair of the IORA.³⁷² During the 17th Council of Ministries meeting it was announced that South Africa would prioritise and focus on three areas, these are:

‘Maritime safety and security in the region, including prioritising the establishment of the Working Group on Maritime Safety and Security, improving resilience and responses for disaster risk management, including prioritising the implementation of the MOU on search and rescue and sustainable and responsible fisheries management and development, including dealing with the important issue of IUU fishing.’³⁷³

According to the SAIIA policy briefing South Africa’s identification of these priority areas ‘play to the country’s strengths and provide opportunities to leverage existing capacity and expertise’.³⁷⁴ South Africa has also adopted the initiative Operation Phakisa, discussed in chapter three. The Blue Economy focus by the IORA and Operation Phakisa, particularly its focus on the Ocean Economy including ocean governance and protection, are similar in principles.³⁷⁵ Therefore South Africa has taken initiative in accordance with the IORA by adopting these priority areas and the initiative Operation Phakisa. Operation Phakisa also encourages cross-departmental and multi-stakeholder cooperation³⁷⁶ which is one of the key efforts which help with deterrence of IUU fishing. This also portrays that South Africa engages in partnership, private sectors and policy required of member States in accordance with the fisheries support unit and fisheries management processes of the Indian Rim. The maritime safety and security agenda of the IORA was also highlighted to focus on less controversial issues, South Africa has taken this agenda forward by focusing on other aspects such as IUU fishing. However, other challenges and shortcomings identified above need to be addressed by South Africa as a member State of the IORA, South Africa must contribute to institutional structures and procedures of the IORA and South Africa as an influential State of the Indian Rim also must support developing nations of the Indian Rim by sharing of resources.

³⁷² IORA ‘IORA Chair’ available at <https://www.iora.int/en/about/iora-chair>, accessed on 14 July 2020.

³⁷³ SAIIA ‘South Africa’s Indian Ocean Rim Association Legacy: A More Inclusive and Open IORA’ available at <https://saiia.org.za/research/south-africas-indian-ocean-rim-association-legacy-a-more-inclusive-and-open-iora/#>, accessed on 20 July 2020.

³⁷⁴ *Ibid.*

³⁷⁵ *Ibid.*

³⁷⁶ *Ibid.*

(f) New Partnership for Africa's Development (NEPAD)

NEPAD is an agency of the African Union which works towards achieving Agenda 2063 which takes the development of the Africa further.³⁷⁷ NEPAD strives for social and economic growth of Africa.³⁷⁸ NEPAD also takes the initiative to resolve IUU fishing issues within African oceans and provides policy advice on IUU fishing to these nations.³⁷⁹ NEPAD has implemented sustainable networks including the Stop Illegal Fishing network to deal with IUU fishing issues. NEPAD provides for implementation and works on the Pan-African Fisheries and Aquaculture Policy Framework and Reform Strategy.³⁸⁰ This is aimed at ecosystem protection and sustainability whilst ensuring economic progression, productivity and regional cooperation in the management of marine resources amongst African nations.³⁸¹ The policy uses different approaches to achieve this aim and encourages States to reform their fisheries management.³⁸² The policy also encourages States to centre fisheries in their national development policies.³⁸³

Challenges which are faced in obtaining these goals include:

‘Open access of capture fisheries which has led to overfishing and overexploitation, inadequate governance, legal, policy and institutional weaknesses amongst member States, High demands for fish globally and continent-wide and lack of political will’.³⁸⁴

States need to address the mentioned challenges, NEPAD also requires cooperation and compliance amongst other RFMOs and committees in supporting the deterrence of IUU

³⁷⁷ AUDA- NEPAD ‘Overview’ available at <http://www.nepad.org/agenda-2063/overview>, accessed on 23 August 2019.

³⁷⁸ AUDA-NEPAD ‘A prosperous Africa based on inclusive growth and sustainable development’ available at <http://www.nepad.org/agenda-2063/aspirations/332>, accessed on 25 August 2019.

³⁷⁹ Stop Illegal Fishing ‘NEPAD’ available at <https://stopillegalfishing.com/partners/nepad/>, accessed on 23 August 2019.

³⁸⁰ European Commission ‘Pan-African Fisheries and Aquaculture Policy framework and Reform Strategy’ available at https://ec.europa.eu/fisheries/pan-african-fisheries-and-aquaculture-policy-framework-and-reform-strategy_en, accessed on 27 August 2019.

³⁸¹ Amadou Tall ‘The Pan-African Fisheries and Aquaculture Policy Framework and Reform Strategy: Key Policy Messages Transition to sustainability, Profitability and Equitable Distribution’ available at <http://www.nepad.org/file-download/download/public/15742>, accessed on 27 August 2019.

³⁸² *Ibid.*

³⁸³ *Ibid.*

³⁸⁴ *Ibid.*

fishing.³⁸⁵ States also need to engage amongst other States in sharing of resources and information as well as apply necessary targets and measures nationally to meet these goals.³⁸⁶

NEPAD is based in South Africa³⁸⁷ and South Africa partakes in several projects including capacity development.³⁸⁸ The 2016 policy briefing for the Pan-African Fisheries and Aquaculture Policy Framework and Reform Strategy on How To Stop Illegal Fishing In Africa, recognised South Africa's court system to successfully prosecute fisheries crimes and increase the deterrence of IUU fishing through greater probabilities of conviction and punishment of offenders.³⁸⁹ The briefing also recognised South Africa's environmental courts as those which have 'demonstrated the value of sharing expertise and knowledge among prosecutors and law enforcement officers and educating prosecutors about the high gains that fisheries crimes provide and why high fines are required.'³⁹⁰ MCS are most effective when such a court system is applied and is included in the management framework.³⁹¹ The briefing also recognised South Africa as one of three States of NEPAD which has applied a sea observer program to carry out MCS at sea which has strengthened cross checking mechanisms of these States.³⁹²

This portrays South Africa as a member State has legal, policy and institutional strengths and political will. These were highlighted above as challenges of member States of the policy in obtaining its goals. Fisheries is also centered in South Africa's governance and national policies which is managed by DAFF. Open access of capture fisheries leading to IUU fishing was also a challenge outlined above. In South Africa open access fishing still occurs namely in harvesting the abalone species.³⁹³ South Africa must address this challenge and continue to carry out adequate governance and fisheries management processes to contribute

³⁸⁵ Stop Illegal Fishing 'NEPAD' available at <https://stopillegalfishing.com/partners/nepad/>, accessed on 23 August 2019.

³⁸⁶ NEPAD 'How to Stop Illegal Fishing in Africa: Options for Actions to Ensure Change at Regional and International Levels' available at <https://www.nepad.org/publication/how-stop-illegal-fishing-africaoptions-actions-ensure-change-regional-and>, accessed on 26 August 2019.

³⁸⁷ African Union 'NEPAD / AU Development Agency' available at <https://au.int/en/nepad>, accessed on 14 July 2020.

³⁸⁸ NEPAD 'Key Results' available at <https://www.nepad.org/countries/south-africa>, accessed on 14 July 2020.

³⁸⁹ NEPAD 'Policy briefing for the Pan-African Fisheries and Aquaculture Policy Framework and Reform Strategy on How To Stop Illegal Fishing In Africa' available at <https://nepad.org/file-download/download/public/15769>, accessed on 16 July 2020.

³⁹⁰ *Ibid.*

³⁹¹ *Ibid.*

³⁹² *Ibid.*

³⁹³ DJ Crookes 'Trading on extinction: An open-access deterrence model for the South African abalone industry' 2015) Vol. 112 No.3/4 *South African journal of science* 1.

to the closure of these challenges. Despite the notion portrayed by the 2016 briefing above, it must be noted in accordance with the incidents discussed in this dissertation it is clear that there are shortcomings in successfully prosecuting offenders such as apprehension shortcomings.

(g) South West Indian Ocean Fisheries Commission (SWIOFC)

SWIOFC aims to ensure sustainable use of marine resources of the Southwest Indian Ocean region.³⁹⁴ The commission endorses The Code and ten out of twelve member States of the region have adopted the PSMA. The SWIOFC region is one of the regions with the highest adoption by member States of the PSMA.³⁹⁵ SWIOFC addresses issues pertaining to fisheries management and challenges faced by States of the Southwest Indian Ocean region in fisheries management.³⁹⁶ The commission takes on many responsibilities including research on marine life and resources within the region, the coordination of programs involving research, promoting the exchange of research and statistics gathered on marine resources amongst States and providing information and advice to all member States of the region on the management of marine resources and MCS management.

SWIOFC stressed that the primary challenges within the region include the ‘degradation of critical coastal habitats, overfishing and IUU fishing’.³⁹⁷ The SWIOFC region is also in an unfavourable position in terms of the management of fisheries stocks of the region in comparison to other regions of the world.³⁹⁸ Under this notion, the report of scientific committee reiterated that members States of SWIOFC should attempt to better their fisheries management system, these include management of data from the port and sea sampling, to enable quality control and availability of data for examination.³⁹⁹ IUU fishing is approximated to result in a loss of 400 million within the SWIOFC region. Within this region IUU fishing results in marine ecosystem destruction, affects the livelihoods of many communities, causes

³⁹⁴ FAO ‘Southwest Indian Ocean Fisheries Commission (SWIOFC)’ available at <http://www.fao.org/fishery/rfb/swiofc/en>, accessed on 6 July 2019.

³⁹⁵ FAO ‘SWIOFC urged to effectively respond to the aspirations of coastal states’ available at <http://www.fao.org/africa/news/detail-news/en/c/1176360/>, accessed on 14 July 2020.

³⁹⁶ FAO ‘Southwest Indian Ocean Fisheries Commission (SWIOFC)’ available at <http://www.fao.org/fishery/rfb/swiofc/en>, accessed on 6 July 2019.

³⁹⁷ FAO ‘Southwest Indian Ocean Fisheries Commission (SWIOFC)’ available at <http://www.fao.org/fishery/rfb/swiofc/en>, accessed on 6 July 2019.

³⁹⁸ FAO ‘SWIOFC urged to effectively respond to the aspirations of coastal states’ available at <http://www.fao.org/africa/news/detail-news/en/c/1176360/>, accessed on 14 July 2020.

³⁹⁹ *Ibid.*

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economic loss, overfishing, destruction of government structures and threatens food security.⁴⁰⁰ The above-mentioned challenges must be addressed by SWIOFC as well as member States and third parties. Regional collaboration is important for SWIOFC to achieve success.⁴⁰¹

SWIOFCs area of competence is the Southwest Indian Ocean including the waters of national jurisdiction, therefore, South Africa is a member State of SWIOFC. However, only a part of South Africa's coastline, EEZ and continental shelf is within the region of SWIOFC.⁴⁰² South Africa held the 9th SWIOFC session in 2018 where it was agreed by member States that 'SWIOFC should effectively respond to the aspirations and needs of the coastal States of the region'.⁴⁰³ These States accordingly have increased expectations of the structure of SWIOFC in the future. At the meeting the acting head of fisheries for DAFF has stressed that South Africa as a member State of SWIOFC is committed to build up ties of regional collaboration in the fisheries sector of the SWIOFC region. The acting head has stated:

'We need to improve regional efforts in dealing with fisheries scientific research, resource management and compliance with best national and international instruments so as conserve fish resources for future generations'.⁴⁰⁴

He has further encouraged all member States to ratify the PSMA and adopt other similar or relevant instruments to strengthen cooperation amongst the region in the fight against IUU fishing.⁴⁰⁵ SADCs MCSCC was also discussed and recognised 'as a platform for information exchange amongst member States and providing support to the regional joint fishery and ocean patrols'.⁴⁰⁶

⁴⁰⁰ FAO 'Southwest Indian Ocean Fisheries Commission (SWIOFC)' available at <http://www.fao.org/fishery/rfb/swiofc/en>, accessed on 6 July 2019.

⁴⁰¹ FAO 'Southwest Indian Ocean Fisheries Commission (SWIOFC)' available at <http://www.fao.org/fishery/rfb/swiofc/en>, accessed on 6 July 2019.

⁴⁰² SWIOFC 'Ten Years Promoting And Strengthening Regional Cooperation For Securing Sustainable Fisheries In South West Indian Ocean (SWIO) Region' available at https://d2ouvy59p0dg6k.cloudfront.net/downloads/swiofc_booklet_2015.pdf, accessed on 5 July 2019.

⁴⁰³ FAO 'SWIOFC urged to effectively respond to the aspirations of coastal states' available at <http://www.fao.org/africa/news/detail-news/en/c/1176360/>, accessed on 14 July 2020.

⁴⁰⁴ *Ibid.*

⁴⁰⁵ Stop Illegal Fishing 'South Africa hosts Ninth Session of the South West Indian Ocean Fisheries Commission (SWIOFC)' available at <https://stopillegalfishing.com/news-articles/south-africa-hosts-ninth-session-of-the-south-west-indian-ocean-fisheries-commission-swiofc/>, accessed on 14 July 2020.

⁴⁰⁶ *Ibid.*

It is clear that South Africa participates and cooperates amongst other member States. By participating and hosting meetings as well as suggesting measures to take SWIOFC forward. South Africa has also stated that as a member State of the commission, is committed to regional collaboration amongst SWIOFC States in the fisheries sector. South Africa is also party to the PSMA which addresses port measures and port sampling and several other initiatives and instruments which contribute to fisheries management discussed in this chapter. Fisheries is also managed in accordance with DAFF and relevant legislation such as the MLRA. South Africa as a member State must continue to address challenges faced by the region and must continue engage in collaboration and cooperation in the fisheries sector of the region.

(h) Benguela Current Convention (BCC)

The BCC is the first inter-governmental commission to be based on the concept of large ecosystem ocean governance,⁴⁰⁷ where resources are controlled and managed in accordance with human necessities and ocean resources are managed at a large level compared to national level.⁴⁰⁸ The convention sets out the three countries purpose to encourage an organised regional approach to the:

‘Long-term conservation, protection, rehabilitation, enhancement and sustainable use of the Benguela Current large marine ecosystem (BCLME), to provide economic, environmental and social benefits’.⁴⁰⁹

Challenges with regards to achieving these goals and the BCLME include the absence of regional structure and mechanisms, less resources within national States and limited institutional capacity, not enough room for the BCLME to stand as a long-term proposition and difficulty in acquiring access to information and the highest implementation practices.⁴¹⁰ These challenges are addressed at the Ministerial conferences of the commission. At the 6th ministerial conference it was stated that the BCC is committed to working in several fields including combatting IUU fishing and the oceans economy. These were highlighted as issues which the

⁴⁰⁷ Benguela Current Convention ‘The Benguela Current Convention’ available at <https://www.benguelacc.org/index.php/en/about/the-benguela-current-convention>, accessed on 21 May 2019.

⁴⁰⁸ *Ibid.*

⁴⁰⁹ *Ibid.*

⁴¹⁰ Nico E. Willemse ‘BCC/BCLME Strategic Action Programme (SAP) Implementation’ available at https://www.benguelacc.org/index.php/en/component/docman/doc_download/744-bclme-somer, accessed on 26 August 2019.

‘organisation is about, to improve the life in the BCLME and its community’.⁴¹¹ The BCC is supported by the FAO and the BCC furthermore, works towards achieving the 2030 Agenda for Sustainable development, particularly SDG 14, pointed out above.

South Africa as a member State participates in Ministerial conferences of the commission⁴¹² and plays a significant role in taking the BCC commission forward along with Angola and Namibia. South Africa is considered to be the most established State amongst the three and possesses the greatest share of economic benefits of the BCLME.⁴¹³ In South Africa the BCC lends an important support to the drafting of the South African strategy document for the implementation of marine spatial planning (MSP) which portrays the framework for the development of four sub-national marine spatial plans.⁴¹⁴ In accordance with the BCC South Africa has embarked on the first cruise of the Second Indian Ocean Expedition (IIOE2) program of the Intergovernmental Oceanographic Commission (IOC) of UNESCO.⁴¹⁵ The IIOE2 is a multi-national program related to the gathering of fundamental long-term marine environmental data in the Indian Ocean for the period 2016-2020.⁴¹⁶ This portrays the links amongst South Africa’s marine initiatives and the BCC. Furthermore, at the 6th Ministerial conference of the BCC initiatives carried out by South Africa which contribute to taking the BCC forward were highlighted including the IIOE2 and Operation Phakisa, it was stated:

⁴¹¹ South African Government ‘Minister Edna Molewa: 6th Ministerial Conference of Benguela Current Convention’ available at <https://www.gov.za/speeches/minister-edna-molewa-6th-ministerial-conference-benguela-current-convention-9-nov-2017-0000>, accessed on 19 July 2020.

⁴¹² Department of Environment, Forestry and Fishery ‘Minister Molewa leads SA delegation to Benguela Current Commission’s Ministerial Conference in Namibia’ available at https://www.environment.gov.za/event/international/2016benguela_currentcommission_ministerialconference, accessed on 15 July 2020.

⁴¹³ Nico E. Willemsse ‘BCC/BCLME Strategic Action Programme (SAP) Implementation’ available at https://www.benguelacc.org/index.php/en/component/docman/doc_download/744-bclme-somer, accessed on 26 August 2019.

⁴¹⁴ International Climate Initiative ‘Conservation and Sustainable Use of the Benguela Current Large Marine Ecosystem’ available at https://www.international-climate-initiative.com/en/details/project/conservation-and-sustainable-use-of-the-benguela-current-large-marine-ecosystem-13_IV+_041-402, accessed on 18 July 2020.

⁴¹⁵ South African Government ‘Minister Edna Molewa: 6th Ministerial Conference of Benguela Current Convention’ available at <https://www.gov.za/speeches/minister-edna-molewa-6th-ministerial-conference-benguela-current-convention-9-nov-2017-0000>, accessed on 19 July 2020.

⁴¹⁶ Department of Environment, Forestry and Fishery ‘South Africa makes its contribution to the Second International Indian Ocean Expedition (IIOE-2)’ available at <https://www.environment.gov.za/mediarelease/southafricamakesitscontributioniioe2>, accessed on 15 July 2020.

‘South Africa stands ready to share experiences on what has been achieved thus far under our oceans economy programme, ‘Operation Phakisa’, to unlock the economic potential that our oceans provide’.⁴¹⁷

The achievements of South Africa in accordance with Operation Phakisa was further highlighted including an increase in job creation.⁴¹⁸ South Africa has congratulated the BCC team on their continuous efforts and further recognised that the collective efforts of the State along the BCC team is of great significance and has contributed to the current status of the BCC.⁴¹⁹ Therefore, South Africa is committed to the goals of the BCC and cooperates with Namibia and Angola in reaching the vision of the BCLME. South Africa has accordingly carried out initiatives such as Operation Phakisa which contribute to these goals and vision however, South Africa being the most established State amongst the member States, need to continuously address the challenges pointed out which hinder the BCCs goals and vision of the BCLME from being reached.

(i) Commission for the Conservation of Southern Bluefin Tuna (CCSBT)

CCSBT is an intergovernmental and RFMO organisation which provides measures for conservation and sustainable utilisation of the marine species, the Southern Bluefin Tuna (SBT).⁴²⁰ South Africa and several other States are members of the extended commission of the CCSBT.⁴²¹ South Africa has acceded to the CCSBT in 2015.⁴²² The CCSBT sets a TAC of the SBT amongst its member States.⁴²³

The CCSBTs TAC is based on a management procedure which makes use of data collection from monitoring of the SBT.⁴²⁴ The commission also makes use of a compliance

⁴¹⁷ South African Government ‘Minister Edna Molewa: 6th Ministerial Conference of Benguela Current Convention’ available at <https://www.gov.za/speeches/minister-edna-molewa-6th-ministerial-conference-benguela-current-convention-9-nov-2017-0000>, accessed on 19 July 2020.

⁴¹⁸ *Ibid.*

⁴¹⁹ *Ibid.*

⁴²⁰ CCSBT ‘Commission for the Conservation of the Southern Bluefin Tuna’ available at <https://www.ccsbt.org/>, accessed on 28 June 2019.

⁴²¹ *Ibid.*

⁴²² South African Government ‘Agriculture, Forestry and Fisheries hosts Commission for conservation of Southern Bluefin Tuna’ available at <https://www.gov.za/speeches/south-africa-host-annual-meetings-commission-conservation-southern-bluefin-tuna-12-apr-2019>, accessed on 24 June 2019.

⁴²³ *Ibid.*

⁴²⁴ CCSBT ‘Management procedure’ available at <https://www.ccsbt.org/en/content/management-procedure>, accessed on 24 June 2019.

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plan including conservation and sustainability measures which is followed by all member States to obtain the CCSBT objectives. The CCSBT has enforced three compliance plan guidelines to obtain their objectives, these are ‘the minimum performance requirements to meet CCSBT obligations, corrective actions policy and MCS information collection and sharing’.⁴²⁵ The CCSBT also makes use of a quality assurance review which is used to provide reviews of States performance in accordance with their obligations to the CCSBT.⁴²⁶

The ‘resolution on establishing a list of vessels presumed to have carried out IUU Fishing activities for the SBT’ was adopted in 2017. This consists of a list of vessels which are assumed to have been engaging in IUU fishing activities as identified by CCSBT members and the commission at each annual meeting of the CCSBT in accordance with criteria as established by the resolution. This list is published in the CCSBT website and communicated to relevant RFMOs.

The CCSBT and member States need to address certain key challenges and issues that hinder the success of the commission. These include stock rebuilding of the SBT, revaluating societies demands in the harvesting of the SBT compared to the environmental need to rebuild stocks of the SBT, the need to ensure stocks are not a result of IUU fishing within the area of competence, ensure all SBT stocks to be accounted for and requiring cooperation from member States as well as non-member States in meeting these targets also whilst considering the conditions and needs of these States and ensuring that CCSBT systems allow for States to commit to their rights and responsibilities.⁴²⁷

South Africa participates in the RFMOs, the ICCAT, IOTC and the CCSBT which specifically deal with the tuna species. It was stated by the former South African Minister for fisheries, that South Africa is a leader and role model to other States participating in RFMOs in the world of tuna management.⁴²⁸ As a member State of several RFMOs South Africa is confident that it has performed exemplary in acting in accordance with the majority of

⁴²⁵ CCSBT ‘Monitoring, control and surveillance’ available at <https://www.ccsbt.org/en/content/monitoring-control-and-surveillance>, accessed on 25 June 2019.

⁴²⁶ *Ibid.*

⁴²⁷ CCSBT ‘Strategic Plan for the Commission for the Conservation of Southern Bluefin Tuna’ available at https://www.ccsbt.org/sites/default/files/userfiles/file/docs_english/operational_resolutions/CCSBT_Strategic_Plan.pdf, accessed on 23 August 2019.

⁴²⁸ FishSA ‘Tuna Management. South Africa a Role Model’ available at <https://fishsa.org/2019/10/23/tuna-management-south-africa-a-role-model/>, accessed on 20 July 2020.

measures and requirements of tuna RFMOs.⁴²⁹ This notion is well known amongst other member States and RFMOs.⁴³⁰

The ICCAT and the IOTC was discussed above. With regards to South Africa's role in the CCSBT, South Africa is an active member which has hosted and participates at the meetings of the commission. The latest meeting of the CCSBT, the 26th annual meeting of the convention took place in Cape Town in 2019. At the meeting South Africa has stated:

‘As a developing nation, South Africa is well placed in terms of its geographic location and its available infrastructure to further develop its tuna directed fisheries and in particular the fishery for SBT and consequently deriving maximum economic benefit for its citizens’.⁴³¹

The meeting has passed several resolutions including the ‘resolution to Align CCSBT’s ecologically related species measures with those of other tuna RFMOs’ and the ‘resolution on the adoption of a management procedure for optimal utilisation and conservation of the STB’.⁴³² South Africa’s SBT allocation for the 2018-2020 seasons is 450 tons in accordance with the CCSBT.⁴³³ CCSBT has also adopted a quality assurance review (QAR) which ‘identify how well their management systems function with respect to their CCSBT obligations and to provide recommendations on areas where improvement is needed’.⁴³⁴ The QAR also serves as MCS mechanisms in accordance with the CCSBT and in 2018 a QAR was conducted on South Africa. The QAR found strengths and weaknesses in South Africa’s management system of the SBT. Some of the strengths which were found include:

‘No CDS document is signed before being verified and validated by two independent officials, mandatory VMS reporting by all fleets, a MCS system that includes at sea inspections and strong fisheries legislative framework with enforceable sanctions, high

⁴²⁹ *Ibid.*

⁴³⁰ *Ibid.*

⁴³¹ CCSBT *Report of the Twenty Sixth Annual Meeting of the Commission* (No 26) Cape Town: CCSBT (2019) available at https://www.ccsbt.org/sites/default/files/userfiles/file/docs_english/meetings/meeting_reports/ccsbt_26/report_of_CCSBT26.pdf, accessed on 12 July 2020.

⁴³² *Ibid.*

⁴³³ South African Government ‘Agriculture, Forestry and Fisheries hosts Commission for conservation of Southern Bluefin Tuna’ available at <https://www.gov.za/speeches/south-africa-host-annual-meetings-commission-conservation-southern-bluefin-tuna-12-apr-2019>, accessed on 15 July 2020.

⁴³⁴ CCSBT ‘Monitoring, control and surveillance’ available at <https://www.ccsbt.org/en/content/monitoring-control-and-surveillance>, accessed on 19 July 2020.

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resolution catch and effort data is submitted in line with RFMO reporting guidelines and templates and a bespoke CDS database'.⁴³⁵

Some of the weaknesses identified includes:

‘Some deficiencies in systems used to implement the CCSBT CDS were apparent. These included the incorrect use of catch monitoring forms, incorrect use of SBT tags and the use of non-compliant tags, the VMS Operations room at DAFF does not receive information from foreign flagged vessels transiting in the South African EEZ that choose to transmit via AIS, the Directorate is under-staffed which has resulted in some reporting delays to CCSBT’.⁴³⁶

While South Africa has many strengths in its management system of the SBT and is also known to be a role model for other States in tuna management and furthermore, collaborates and participates in the CCSBT there are many deficiencies identified above which need to be addressed by South Africa. South Africa must furthermore, address the challenges faced by the commission, identified above and incorporate the resolutions passed nationally.

(j) African Charter on Maritime Security and Safety and Development in Africa (Lomé Charter)

The Lomé Charter is the result of an African Union extraordinary summit held in Lomé. The Lomé Charter is aimed at taking the Africa’s blue economy and maritime security forward.⁴³⁷ The charter was adopted in 2016 and 55 countries of the region have signed the charter including South Africa.⁴³⁸ The charter is also aimed at the beneficial exploration of the regions

⁴³⁵ CCSBT *Quality Assurance Review On behalf of the Commission for the Conservation of Southern Bluefin Tuna* (1810/05) South Africa: QAR– Fishing Entity of South Africa (2018) available at https://www.ccsbt.org/en/system/files/CC13_05_QAR_South_Africa_Final_Report_Sept_2018.pdf, accessed on 21 July 2020.

⁴³⁶ *Ibid.*

⁴³⁷ Edwin Egede ‘Africa’s Lomé Charter on maritime security: What are the next steps?’ available at <http://piracy-studies.org/africas-lome-charter-on-maritime-security-what-are-the-next-steps/>, accessed on 19 May 2019.

⁴³⁸ African Union ‘List of countries which have signed, ratified/acceded to the African charter on maritime security and safety and development in Africa (Lomé Charter)’ available at https://au.int/sites/default/files/treaties/33128-sl-african_charter_on_maritime_security_and_safety_and_development_in_africa_lome_charter.pdf, accessed on 18 May 2019.

ocean whilst ensuring protection of the ocean including marine living resources.⁴³⁹ The Lomé Charters success depends on cooperation amongst countries and affirmative action in ensuring protection of the ocean by adopting and implementing the charter in their country and collaboration amongst similar organisations.⁴⁴⁰

Furthermore, in accordance with the Lomé Charter member States have the responsibility of providing protection to the African region and providing support as needed to other member States as well as third party States. States must also order their plans of action and implementation in accordance with the Lomé Charter and build up their sanctions and enforcement mechanisms at sea, such as training of personnel at sea, to meet the Lomé Charter goals. States must furthermore, implement strong MCS mechanisms within their maritime zones.⁴⁴¹ Challenges that are faced by the Charter are implementation issues as the Charter requires commitment at national level on issues such ‘equipment, technology, logistics and training’.⁴⁴² The actual implementation of the Charter from paper to action is also an issue. Programmatic activities in accordance with the Charter need to take place as well as ‘ownership’ of the Charter by States.⁴⁴³ The actual ratification of the Charter need to take place to achieve this and incorporating measures of the Charter domestically and adopting programs domestically such as South Africa’s oceans economy initiative under Operation Phakisa.⁴⁴⁴ There is lack of ratification or a slow and long drawn ratification process of the Charter amongst States.⁴⁴⁵ Other challenges include bureaucracy and insufficient awareness and resources.⁴⁴⁶

South Africa has signed the Lomé Charter however the State has not ratified the Charter. According to the South African Journal for Military Studies only five member States of SADC have signed the Lomé Charter, it was further stated:

⁴³⁹ International Oceanographic Data and Information Exchange ‘The Lomé Charter’ available at <http://odinafrica.org/about-us/news/71-the-lome-charter.html>, accessed on 19 May 2019.

⁴⁴⁰ *Ibid.*

⁴⁴¹ Oluseyi Oladipo ‘Cooperation as a Tool for Enhancing State Capacity to Fulfill Obligations of the Lomé Charter’ available at <https://www.accord.org.za/conflict-trends/cooperation-tool-enhancing-state-capacity-fulfill-obligations-lome-charter/>, accessed on 24 August 2019.

⁴⁴² *Ibid.*

⁴⁴³ Edwin Egede ‘Africa’s Lomé Charter on maritime security: What are the next steps?’ available at <http://piracy-studies.org/africas-lome-charter-on-maritime-security-what-are-the-next-steps/>, accessed on 19 May 2019.

⁴⁴⁴ *Ibid.*

⁴⁴⁵ *Ibid.*

⁴⁴⁶ *Ibid.*

‘This does not bode well for SADC cooperation on matters other than piracy. This is especially true for South Africa, a country that should, on paper at least, arguably have the most to contribute in terms of capacity and adherence to the rule of law’.⁴⁴⁷

Furthermore, the journal stated that regional cooperation is crucial to ensure successful maritime security.⁴⁴⁸ The Lomé Charter legally enforces the ideals for successful maritime security however there is a lack of support by several States including South Africa. South Africa has a crucial role to carry out in the maritime security domain however, there has been no ‘discernible’ progress towards the implementation of these imperatives.⁴⁴⁹ There are also apprehensions regarding the lack of political will of the State to ensure maritime security due to the Charter not being ratified.⁴⁵⁰ Capacity challenges are also concerned such as slow implementation of the Charter in South Africa.⁴⁵¹ According to Oladipo the Charter is yet to come to fruition in South Africa.⁴⁵² While South Africa has implemented Operation Phakisa’s ocean economy as a domestic program which contributes to the ideals of the Charter, there is evidently challenges which need to be addressed and measures which need to be implemented to ensure the Charter is adhered to and implemented in South Africa. These include the ratification of the Charter and regional cooperation in accordance with the Charter.

(k) Conclusion

In the case of RFMOs States must also satisfy their responsibilities in accordance with these RFMOs for successful deterrence of IUU fishing. In accordance with the RFMOs discussed above it was stressed that cooperation including participation by member States is crucial. According to the voluntary industrial body FishSA failure to attend meetings severely disadvantages States in negotiations and allocation of fishing possibilities and furthermore, non-compliance by States may have a crucial negative impact on the State and the fishing industry.⁴⁵³ South Africa must therefore ensure cooperation amongst other RFMOs member

⁴⁴⁷ M Blaine M Nel ‘South African maritime foreign policy: Rethinking the role of the South African navy’ *African journal of Military Studies* 123.

⁴⁴⁸ *Ibid.* at 121.

⁴⁴⁹ *Ibid.* at 122.

⁴⁵⁰ *Ibid.*

⁴⁵¹ Oluseyi Oladipo ‘Cooperation as a Tool for Enhancing State Capacity to Fulfill Obligations of the Lomé Charter’ available at <https://www.accord.org.za/conflict-trends/cooperation-tool-enhancing-state-capacity-fulfill-obligations-lome-charter/>, accessed on 1 August 2020.

⁴⁵² *Ibid.*

⁴⁵³ FishSA ‘Tuna Management. South Africa a Role Model’ available at <https://fishsa.org/2019/10/23/tuna-management-south-africa-a-role-model/>, accessed on 20 July 2020.

States to ensure that RFMO is successful and therefore will contribute to deterrence of IUU fishing in South Africa. South Africa must also address shortcomings of the State including implementation issues and furthermore, must address challenges faced by these RFMOs, identified above. It is the responsibility of DAFF to ensure vessels are compliant with relevant RFMOs management measures.⁴⁵⁴

South Africa has relations with Australia, Mozambique and New Zealand in the form of bilateral agreements to address fisheries management and IUU fishing. South Africa and Australia share a cooperative framework which derived from CCAMLR to address IUU fishing in the Southern Ocean.⁴⁵⁵ South Africa and Mozambique agree and cooperate with regards to their integrated marine and coastal management as well as fishing.⁴⁵⁶ South Africa and New Zealand's cooperation is also connected to their common interest in the Southern Ocean.⁴⁵⁷

2.7 Summation

This chapter has discussed and analysed South Africa's global framework for deterrence of IUU fishing. Whilst this framework plays a significant role in deterrence of IUU fishing, the domestic framework which consists of binding fishing laws, regulations, initiatives for South Africa's maritime zones specifically and the court processes for non-compliance of these fishing laws is the foundation of providing action for redress and sanctions for the disastrous effects of IUU fishing in South Africa's maritime zones. In chapter three the domestic framework for deterrence of IUU fishing, consisting of relevant legislation and domestic initiatives, is analysed.

⁴⁵⁴ DAFF 'Monitoring, control and surveillance' available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Monitoring-Control-and-Surveillance/compliances>, accessed on 6 July 2020.

⁴⁵⁵ DAFF 'International Relations and Obligations' available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/International-Relations-and-Obligations/bilateral>, accessed on 19 May 2019.

⁴⁵⁶ *Ibid.*

⁴⁵⁷ *Ibid.*

3. ANALYSIS OF SOUTH AFRICA'S DOMESTIC FRAMEWORK FOR DETERRENCE OF IUU FISHING

3.1 Introduction to IUU fishing in South Africa's maritime zones

There has been a substantial improvement in the management of marine fisheries globally and a significant contribution to deterrence of IUU fishing in South Africa in accordance with the global framework discussed in chapter two. However, in accordance with the occurrences of IUU fishing in South Africa's maritime zones, including those discussed below it is evident that IUU fishing remains prevalent within South Africa's maritime zones. In South Africa there are still many issues with regards to marine fisheries which contribute to IUU fishing such as the fact that many people catch fish beyond their allocated quotas and escape easily with this misconduct.¹ This chapter analyses the domestic framework to deter IUU fishing in South Africa. The following provisions describe the extent and realm of South Africa's maritime zones.

In terms of section 4 of the Maritime Zone Act², 'territorial waters' are described as:

'The sea within a distance of twelve nautical miles from the baselines shall be the territorial waters of the Republic. Any law in force in the Republic, including the common law, shall also apply in its territorial waters and the airspace above its territorial waters. The right of innocent passage shall exist in the territorial waters'.³

Within a distance of 200 nautical miles from the baselines extends the Exclusive Economic Zone (EEZ).⁴ According to section 7 of the Act⁵ EEZ, is defined as:

'The sea beyond the territorial waters referred to in s 4, but within a distance of 200 nautical miles from the baselines. Subject to any other law the Republic shall have, in respect of all-natural resources in the EEZ, the same rights and powers as it has in respect of its territorial waters'.⁶

¹ FAO 'Quota Management and Management Performance' available at <http://www.fao.org/3/w7292e/w7292e04.htm>, accessed on 22 November 2019.

² Maritime Zones Act 15 of 1994.

³ *Ibid.*

⁴ *Ibid.*

⁵ *Ibid.*

⁶ *Ibid.*

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The coastal State has sovereign rights to explore and exploit marine resources under the EEZ in its adjacent continental shelf.⁷

South Africa's maritime zones are larger than its land territory.⁸ South Africa has a vast coastline of some 3200 km at the confluence of the east and west coasts of Africa.⁹ This coastline is rich in marine biodiversity and resources with an estimated ten thousand aqua species recorded in this vicinity.¹⁰ South Africa's maritime zones supports many communities, economic activities and ecosystems and its vulnerability requires necessary measures for protection and sustainable development. Activities which take place in these maritime zones for the purposes of economic growth include fishing, scientific research, medicine and food production.¹¹ Included in South Africa's maritime zones are the sub-Antarctic Prince Edward Islands. According to research statistics it is estimated that 58 percent of coastline ecosystems and 41 percent of EEZ ecosystems survival are threatened in South Africa's maritime zones.¹²

Fish production contributes to an estimated R5 billion in South Africa's GDP and coastal resources contribute to around 35 percent of South Africa's GDP.¹³ South Africa's fish industry is estimated to be worth over R6 billion, with more than 27 000 individuals who rely on this industry for their daily livelihoods.¹⁴ South Africa exports many species of fish and is currently a net exporter of fishery products.¹⁵ According to the WWF South Africa 2018 ocean scorecard, fishing stocks which are categorised as overexploited has seen a decrease in previous years by 4 percent due to continuous efforts by the Department of Agriculture, Forestry and Fisheries (DAFF) however, more or less than 38 percent of marine fisheries remain

⁷ United Nations Convention on the Law of the Sea, 10 December 1982, 3 UNTS 3, 21 ILM 1261, 16 November 1994, Article 56.

⁸ Department of Environmental Affairs and Tourism 'Chapter 9 Oceans and coasts' available at https://www.environment.gov.za/sites/default/files/reports/environmentoutlook_chapter9.pdf, accessed on 2 September 2019.

⁹ Department of Environmental Affairs and Tourism 'Marine and Coastal Management' available at https://www.environment.gov.za/sites/default/files/docs/15yearreview_marine_coast.pdf, accessed on 2 September 2019.

¹⁰ *Ibid.*

¹¹ Department of Environmental Affairs and Tourism 'Chapter 9 Oceans and coasts' available at https://www.environment.gov.za/sites/default/files/reports/environmentoutlook_chapter9.pdf, accessed on 2 September 2019.

¹² *Ibid.*

¹³ Department of Environmental Affairs and Tourism 'Marine and Coastal Management' available at https://www.environment.gov.za/sites/default/files/docs/15yearreview_marine_coast.pdf, accessed on 2 September 2019.

¹⁴ Western Cape Government 'Overfishing' available at <https://www.westerncape.gov.za/general-publication/overfishing>, accessed on 3 September 2019.

¹⁵ Seafish 'A report on the Seafish industry in South Africa' available at <https://www.seafish.org/media/775685/south%20africa.pdf>, accessed on 18 September 2019.

overexploited.¹⁶ It is estimated that southern and eastern Africa incurs a loss of R9.8 billion worth of fisheries due to IUU fishing annually.¹⁷ Species such as the West Coast lobster are threatened by IUU fishing in South Africa. According to WWF less than 0.5 percent of marine ecosystems are protected in South Africa.¹⁸ South Africa has an estimated 23 percent of species of fish which are unknown and there is no record of these species.¹⁹

This chapter provides an analysis of South Africa's domestic framework for deterrence of IUU fishing. These include relevant environmental and domestic fishing legislation including regulations. This chapter also covers the analysis of relevant domestic initiatives which contribute to deterrence of IUU fishing including Operation Phakisa.

3.2 A case study involving IUU fishing in South Africa's maritime zones

A crucial incident which illustrates the extent of IUU fishing and led to a string of cases in South Africa and the United States is *Bengis and Others v Government of South Africa and Others*.²⁰ This incident is also known as 'the man who destroyed the West Coast lobster'²¹ and for the purposes of this dissertation is referred to as the *Bengis* case. This incident was primarily concerned with IUU fishing however, also involved the offences of bribery and corruption. The brief facts of this case are as follows: a container was found in Cape Town harbor which held marine species, namely the West Coast rock lobster, to the value of an estimated R8 million.²² This had consequently led to investigation of the company.²³ These marine species were to be shipped to the United States by a company known as Hout Bay Fishing Industries.²⁴ Quotas

¹⁶ Two Oceans Aquarium '5 highlights from the WWF South Africa 2018 Ocean Scorecard' available at <https://www.aquarium.co.za/blog/entry/highlights-wwf-south-africa-2018-ocean-scorecard>, accessed on 2 September 2019.

¹⁷ DJ Agnew, J Pearce, G Pramod, T Peatman, R Watson 'Estimating the Worldwide extent of illegal fishing' (2009) Vol. 4 No. 2, *PLoS ONE*, 1.

¹⁸ Two Oceans Aquarium '5 highlights from the WWF South Africa 2018 Ocean Scorecard' available at <https://www.aquarium.co.za/blog/entry/highlights-wwf-south-africa-2018-ocean-scorecard>, accessed on 2 September 2019.

¹⁹ *Ibid.*

²⁰ *Bengis and Others v Government of South Africa and Others* 2016 (1) JDR 1608 (WCC).

²¹ Timeslive 'The man who destroyed the West Coast rock lobster' available at <https://www.dispatchlive.co.za/news/2017-07-21-the-man-who-destroyed-the-west-coast-rock-lobster/>, accessed on 24 November 2019.

²² Bill Blumenfeld 'Hout Bay fishing company found guilty' available at <https://www.iol.co.za/news/south-africa/hout-bay-fishing-company-found-guilty-85806>, accessed on 22 May 2019.

²³ *Ibid.*

²⁴ *Ibid.*

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were allocated for the company's fish catch, however, members of the company had maliciously engaged in overfishing by bribing the fishing officers who oversaw that persons do not catch marine species beyond their allocated quotas.²⁵ Fishing products which had resulted from the act of IUU fishing were purchased and imported to the United States by the company.²⁶ The matter was initially heard in the Wynberg Regional Court where the company's directors namely, Arnold Bengis and Colin van Schalkwyk, had pleaded guilty to the offence of overfishing and corruption and were convicted of 301 charges.²⁷ A fine of R40 million was a result of a settlement which was agreed upon at the plea bargain,²⁸ was agreed to be paid by the company. Further investigations in South Africa, by the Scorpions, took place and eighteen vessels owners were found to have conspired with the company and had harvested up to ten times more than their allocated quota.²⁹ As a result, these vessel owners were convicted, and fishery control officers were suspended.³⁰ Hout Bay Fishing Industries illegal actions are in contravention of the MLRA, namely section 18.³¹ The MLRA is the main piece of legislation which controls marine fisheries and which deals with the offence of IUU fishing in South Africa's maritime zones. The MLRA is however, not the only piece of legislation which deals with marine fisheries and IUU fishing in South Africa. The MLRA and the other relevant statutes will be analysed in this chapter.

Later in 2004, the matter was taken to the United States courts in *United States v Bengis*.³² The directors of the company were convicted, fined and sentenced to imprisonment in accordance with the United States Lacey Act.³³ The value of the illegal actions that Hout Bay Fishing Industries engaged in South Africa's maritime zones is estimated to be US\$100

²⁵ *Ibid.*

²⁶ Note 17 above, 12.

²⁷ Department of Environmental Affairs 'Seas of Change' available at https://www.environment.gov.za/sites/default/files/docs/10yyearsreview_marine_coast.pdf, accessed on 16 May 2019.

²⁸ Bill Blumenfeld 'Hout Bay fishing company found guilty' available at <https://www.iol.co.za/news/south-africa/hout-bay-fishing-company-found-guilty-85806>, accessed on 22 May 2019

²⁹ Department of Environmental Affairs 'Seas of Change' available at https://www.environment.gov.za/sites/default/files/docs/10yyearsreview_marine_coast.pdf, accessed on 16 May 2019.

³⁰ *Ibid.*

³¹ Marine Living Resources Act 18 of 1998 was amended by the Marine Living Resources Amendment Act 5 of 2014.

³² *United States v Bengis* 2004 (SDNY).

³³ United States Lacey Act of 1900 was amended by Lacey Act Amendments of 2008.

million by DAFF.³⁴ Furthermore, this has also caused a significant decline in the West Coast Lobster species.

In another incident, in 2016, three foreign Chinese vessels had been found in the possession of illegal fishing gear and no valid fishing licence in South Africa's EEZ. After two of the three vessels attempted to escape, authorities eventually managed to detain all three vessels. The crew of these vessels pleaded guilty to the offences. These vessels were fined in accordance with the MLRA³⁵, R200 000 respectively, an additional R50 000 for the two vessels which attempted to escape due to non-compliance and R1.3 million for environmental contraventions.³⁶ In the same year, the incident of the Lu Huang Yuan Yu 186 occurred where, nine fishing vessels were found illegally in South Africa's EEZ. The fleet of nine fishing vessels went radio silent during the evening³⁷ and navigation signals and tracking beacons were shut down. The South African monitoring vessel, the Victoria Mxenge detected the fleet and attempted interdicting the fleet.³⁸ However, all nine vessels attempted to flee with eight of the nine vessels managing to disperse in all directions just outside of South Africa's EEZ while only one, the Lu Huang Yuan Yu, was interdicted and charged for illegally entering South Africa's maritime zones and violating lawful commands by a fishery control officer. A similar fine was paid as the preceding Chinese vessel incident above.³⁹ Once the rest of the fleet left South Africa's naval jurisdiction, a chase by navy vessels for the rest of the fleet had failed.⁴⁰ These are just three incidents which illustrates IUU fishing within South Africa's maritime zones.

From these above-mentioned incidents, it is clear that the MLRA plays an important role in deterrence of IUU fishing, however, IUU fishing persists on South Africa's maritime zones. In the *Bengis* case it is apparent that that the crime of IUU fishing may involve other factors including bribery and corruption as fishery officers were bribed and several other vessel owners were involved and which engaged in IUU fishing and sold their stocks to Hout Bay Fishing Industries. The *Bengis* case also illustrated the wider extent of IUU fishing as illegal

³⁴ Lindsay Dentlinger 'Former fishing magnate Bengis (81) faces arrest again' available at <https://ewn.co.za/2017/07/20/former-fishing-magnate-bengis-81-faces-arrest-again>, accessed on 6 November 2019.

³⁵ Marine Living Resources Act 18 of 1998 was amended by the Marine Living Resources Amendment Act 5 of 2014.

³⁶ Go Legal 'South African authorities prosecute over illegal fishing' available at <https://www.golegal.co.za/prosecuting-illegal-fishing/>, accessed on 14 March 2019.

³⁷ Sipho Kings 'Illegal fishing: A global problem' *Mail and Guardian* 20 May 2016 at 8.

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ *Ibid.*

fish stocks were being imported into the United States and the case had been taken to the United States court. The extent of damage that IUU fishing may cause is also illustrated with an estimated US\$100 million in damage on South Africa's maritime zones in this incident alone. Fines were charged in accordance with the MLRA in this case and therefore, it can be said that the fines payable in terms of South Africa's MLRA are insignificant compared to the actual damage that act of IUU fishing may cause. This is also evident in the Chinese vessel incident above. In accordance with the section 58 of the MLRA which deals with sanctions and penalties, it is stated that any person who contravenes a provision of the Act: 'shall be guilty of an offence and liable on conviction to a fine not exceeding R2 million, or imprisonment for a period not exceeding five years'.⁴¹ In the South African *Bengis* case a full settlement of R40 million was paid. The actual value of the damage caused from IUU fishing in the *Bengis* case is insignificant in contrast to the settlement amount. This proves that the fines for offences due to the act of IUU fishing therefore need to be revisited and will be discussed further below in the analysis of the MLRA.

In the Lu Huang Yuan Yu 186 incident, it is apparent that seafarers who engage in IUU fishing may easily escape out of South African territory as eight of the nine vessels managed to disperse and flee easily. Therefore, the issue of seafarers who engage in IUU fishing not being caught and apprehended need to be revisited, this issue is also related to MCS measures in South Africa's maritime zones. South Africa's monitoring, control and surveillance (MCS) for IUU fishing exists in DAFF and include nanosatellites for surveillance. Whilst these initiatives are comprehensive and play a crucial role in deterrence of IUU fishing the fact remains that South Africa has a large EEZ and IUU fishing vessels may effortlessly escape due to the immense size of our EEZ. Therefore, the enforcement of the legal framework regarding MCS and seizure of vessels need to be revisited which will be discussed below.

3.3 Analysis of the relevant domestic legislative framework

In South Africa, IUU fishing occurs in large fishing and small-scale fishing⁴² and is carried out by both local and foreign parties. South Africa's domestic legislative framework regulating

⁴¹ Marine Living Resources Act 18 of 1998.

⁴² South African government 'Fisheries' available at <https://www.gov.za/about-sa/fisheries>, accessed on 20 March 2019.

fishing activities is contained in: the Sea Fishery Act,⁴³ the MLRA and DAFF.⁴⁴ The National Environmental Management Act (NEMA),⁴⁵ the Environment Conservation Act (ECA),⁴⁶ the National Environmental Management: Integrated Coastal Management Act (ICM)⁴⁷ and the National Environmental Management Biodiversity Act⁴⁸ are not directly concerned with fishing activities however, these statutes contain several applicable provisions relevant to IUU fishing.⁴⁹ These statutes will be analysed below. The case law used in the analysis of these statutes may not directly relate to IUU fishing, however it is used for portraying the application of the provisions. As an overreaching provision, the Constitution of the Republic of South Africa (the Constitution)⁵⁰ provides for the sustainability, protection and conservation of the environment and is relevant in terms of the environmental provisions.⁵¹ The domestic legislation which is relevant to IUU fishing will be discussed and analysed below.

(a) The Sea Fishery Act

The Sea Fishery Act⁵² has the primary objective of controlling the sea's marine fisheries. The Act provides measures for the conservation of marine ecology, utilisation and exploitation of the sea's marine resources whilst ensuring sustainability of these resources and the protection of certain marine resources. However, part of the Act was repealed by the MLRA. The key provisions of the Act which may be applicable to IUU fishing are analysed below.

Section 1 deals with definitions and is applicable in its application to provisions, including, sections 29 and 47. According to section 1:

‘Catch means to takeout of the sea or the sea-shore, to remove from the sea-shore, possess in a net, possess in, upon or next to a vessel, or to land, fish means every species of sea animal, quota means the maximum mass of fish of a particular species allocated

⁴³ Sea Fishery Act 12 of 1988 was amended by Marine Living Resources Act 18 of 1998.

⁴⁴ Marine Living Resources Act 18 of 1998.

⁴⁵ National Environmental Management Act 107 of 1998 was amended by National Environmental Management Laws Amendment Act 25 of 2014.

⁴⁶ Environment Conservation Act 73 of 1989 was amended by the National Environmental Management Act 107 of 1998.

⁴⁷ National Environmental Management: Integrated Coastal Management Act 24 of 2008.

⁴⁸ National Environmental Management: Biodiversity Act 10 of 2004.

⁴⁹ For the purposes of showing links amongst some of these statutes this part will not be in chronological order.

⁵⁰ Constitution of the Republic of South Africa, 1996 (The Constitution).

⁵¹ *Ibid.*

⁵² Sea Fishery Act 12 of 1988.

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to an exploiter which he may catch during a specified period and in a defined area and vessel means any water-navigable craft of any type'.⁵³

In accordance with section 29 a levy may be set on all marine species 'which are landed by fishermen, and any product thereof'.⁵⁴ This notice must specify the levy total, the names of the individuals who utilise the marine species and who must pay such levy and the individual who is charged with the retrieval thereof or any other information the Minister considers as obligatory. The Minister may remove or revise the notice, put non-identical levies in effect for different species, may impose exceptions with regards to levies and the payment thereof, may prescribe interest payment for levies and may impose penalties for disregard of such notice in accordance with penalties prescribed by section 47. The Director General must receive the amount payable due to such levy and all interest that is included in a competent court. The Director General may retrieve such payment by sending out a notice to such individuals who are liable pay and the notice must stipulate the time period for such payment. Levies are set on marine species in several States globally as a mechanism for fishery population management.⁵⁵ However, IUU seafarers avoid the payment of levies and other duties by fishing in contravention of the law.⁵⁶

Section 47 of the Act still applies in its application to section 29 and deals with offences and penalties. In terms section 47 there are several provisions which are significant to IUU fishing and if a person is found guilty of contravening these provisions, they shall be guilty of an offence and be liable on conviction to a fine not exceeding R15 000 or to imprisonment for a period not exceeding five years or to both a fine and imprisonment.⁵⁷ These provisions include any individual who exports or imports any live fish without a permit and any individual who gives false information in response to a fishery control officer or fails to adhere to a condition or requirement imposed by a fishery control officer or police officer.⁵⁸

The Act and its provisions are relevant to IUU fishing as the Act deals with fishing activities and marine fisheries and the purpose of deterrence of IUU fishing is to ensure

⁵³ *Ibid.*

⁵⁴ *Ibid.*

⁵⁵ Carlos Chavez 'Using Taxes to Deter Illegal Fishing in ITQ systems' available at https://www.greengrowthknowledge.org/sites/default/files/Chavez_Using_taxes_to_deter_illegal_fishing_in_ITQ_systems.pdf, accessed on 25 November 2019.

⁵⁶ Jessica Aldred 'Explainer: Illegal, unreported and unregulated fishing' available at <https://chinadialogueocean.net/1111813-explainer-illegal-unreported-and-unregulated-fishing/>, accessed on 25 November 2019.

⁵⁷ Sea Fishery Act 12 of 1988.

⁵⁸ *Ibid.*

sustainability, which is also the Acts aim. A person who imports or exports fishing products without a permit is guilty of an offence, highlighted above. IUU fishing as highlighted in the *Bengis* case may involve the importing of marine products obtained as a result of IUU fishing. This provision helps in this regard as a sanction for individuals who engage in importing and exporting of IUU fishing products. Levies are imposed as highlighted above, on certain marine species and penalties are imposed if the payment of these levies are found to have been disregarded. Although IUU seafarers engage in IUU fishing to avoid the payment of these levies, with regards to the deterrence of IUU fishing these levies may be relevant as levies are a means of ensuring these species are not tampered with.

(b) The Marine Living Resources Act (MLRA)

The MLRA has the objective of protection and conservation of the marine environment and marine biodiversity, sustainable utilisation and development of marine resources. The Act emphasises the necessity to ensure approaches are implemented to achieve this objective. The MLRA also aims to achieve socio-economic development and food security whilst ensuring ecological development and the need to achieve equity within the fishing industry. The Act provides several provisions to achieve this objective and provides regulation on marine living resources in a just and equitable manner to the betterment of the citizens of South Africa.⁵⁹ As emphasised above, the MLRA is the primary piece of legislation governing marine fisheries in South Africa's maritime zones. The Act is applicable to all marine living resources found in the 'sea'. In this analysis relevant provisions of the Act, its regulations and case law is pointed out followed by a discussion of these provisions including the relevance of these provisions, its regulations and case law to IUU fishing.

In addition to the objectives stated above, similar, to the Sea Fishery Act, the MLRA aims to control the sea's marine fisheries. Further objectives are contemplated in section 2 of the Act. Several provisions of the Sea Fishery Act have been repealed by the MLRA. Furthermore, several regulations have been published in the Gazette in accordance with the MLRA and the Act has been considered in several South African cases including cases which dealt with IUU fishing such as the *Bengis* case and the IUU fishing incidents discussed above. DAFF is primarily responsible for the implementation of the MLRA and deals with the

⁵⁹ Marine Living Resources Act 18 of 1998.

operation and power of fishing activities under the MLRA.⁶⁰ Provisions of the MLRA and its regulations which may be relevant to IUU fishing are pointed out and its application to IUU fishing is analysed below.

According to section 3 of the Act, the MLRA applies to all foreign or South African individuals, all fishing vessels or aircraft including foreign vessels or aircraft, all fishing activities within waters of national jurisdiction and foreign jurisdiction and the Act is applicable to the Prince Edward Islands. Therefore, the Act is applicable to any individual or any vessel or aircraft within South Africa's maritime zones, including all local seafarers and foreign seafarers. In chapter one it was emphasised that both local and foreign seafarers engage in IUU fishing activities in South Africa's maritime zones. Section 5 establishes the 'consultative advisory forum for the Marine Living Resources forum'.⁶¹ In terms of section 6 the forum advises the Minister regarding issues such as the management of fisheries, the total allowable catch (TAC) and recommendations on areas of research. Interested parties nominate suitable candidates as members of the consultative advisory forum.⁶² A forum has not been constituted however, in mid-2019 notice was published under regulations in the Gazette calling for nominations for the constitution of the forum.⁶³ Section 9 provides for the allocation of fishery control officers and honorary marine conservation officers. According to DAFF, fishery control officers are responsible for the inspection of fish carrier vessels, local commercial fishing vessels and foreign fishing vessels at landing sites, conducting inspections at fish processing establishments and on all imported and exported marine products at entry and exit ports and monitor catches for all by-catch species.⁶⁴ Further duties of fishery control officers are pointed out in accordance with section 51 of the MLRA below.

Section 10 deals with the Marine Living Resources Fund (MLRF). Money that is paid into the fund include fines, penalties and interest for offences in contravention of the Act, therefore fines, penalties and interest for offences such as IUU fishing is included in the fund.

⁶⁰ K.L Cochrane 'Informing effective policies for responsible marine fisheries in South Africa. A report prepared for WWF: South Africa and the Responsible Fisheries Alliance' available at <https://www.rfalliance.org.za/wp-content/uploads/2017/06/Cochrane-et-al-2015-Final-Report-Informing-effective-policies-for-marine-fisheries-1.pdf>, accessed on 24 November 2019.

⁶¹ Marine Living Resources Act 18 of 1998.

⁶² Department of Environmental Affairs 'Withdrawal of prior notice and call for nominations for appointment on the consultative advisory forum' available at https://www.gov.za/sites/default/files/gcis_document/201908/42608gon1018.pdf, accessed on 25 November 2019.

⁶³ *Ibid.*

⁶⁴ DAFF 'Monitoring Control and Surveillance (MCS)' available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Monitoring-Control-and-Surveillance/compliances>, accessed on 24 November 2019.

Furthermore, the fund include interest and fees in terms of the Act, funds collected by Parliament for the purposes of the fund, levies and donations.⁶⁵ The MLRF costs arise from the operational costs of the Chief Directorates and the costs of supporting branches of DAFF.⁶⁶ These branches, including DAFFs financial management branch will be briefly discussed below in this chapter.

In terms of section 13 of the MLRA:

‘No person shall exercise any right granted in terms of section 18 or perform any other activity in terms of this Act unless a permit has been issued by the Minister to such person to exercise that right or perform that activity’.⁶⁷

According to section 18 an individual will only be granted the right to fish or engage in a fish processing operation, upon approval. The permits issued when granting fishing rights last for a duration of one year, are subject to conditions and the asking of payment to obtain a permit is permissible in terms of section 25(1). According to section 25(1) permits and licences may be granted with the payment of fees. The conditions of permits are intended to manage species and identified issues.⁶⁸ Regulations were published in the Gazette prescribing the payment of fees for permits to catch specific species of fisheries in terms of section 25 of the MLRA.⁶⁹ Furthermore, regulations have been published in accordance with section 25 regarding fees payable for applications and the issuing of rights, permits and licences in the small-scale fisheries sector including fees payable for an application for a right to operate a fish processing establishment and to undertake small-scale fishing, to exercise a right to small-scale fishing for commercial purposes and small-scale fishing for food purposes and licence fees payable in respect of the issuing of a licence for a local fishing vessel.⁷⁰ In the *Bengis* case there was a contravention of section 18 of the MLRA and in the Lu Huang Yuan Yu incident and the Chinese vessel incident no fishing rights were granted or permits and licences as required in terms of the above provisions. In *West Coast Rock Lobster Association v The*

⁶⁵ DAFF ‘Financial Management Marine Living Resources Fund (MLRF)’ available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Financial-Management-MLRF/revenue>, accessed on 20 November 2019.

⁶⁶ *Ibid.*

⁶⁷ Marine Living Resources Act 18 of 1998.

⁶⁸ K.L. Cochrane ‘Informing effective policies for responsible marine fisheries in South Africa. A report prepared for WWF: South Africa and the Responsible Fisheries Alliance’ available at <https://www.rfalliance.org.za/wp-content/uploads/2017/06/Cochrane-et-al-2015-Final-Report-Informing-effective-policies-for-marine-fisheries-1.pdf>, accessed on 24 November 2019.

⁶⁹ GN 1170 of GG 39451, 25/11/2015.

⁷⁰ GN 558 of GG 40906, 09/06/2017.

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*Minister of Environmental Affairs and Tourism*⁷¹ the court dealt with the granting of rights to subsistence fishers to catch and sell the West Coast Rock Lobster. The appellants sought to set aside the decision to grant subsistence fishers the right to catch and sell the West Coast Rock Lobster however, the court considered the need to restructure the fishing industry in light of historical imbalances prior to democracy and therefore the appeal was dismissed.⁷² *Bato Star Fishing (Pty) Ltd v Minister of Environmental Affairs and Tourism*,⁷³ also dealt with section 18 of the MLRA. The case had considered section 18, that in order to achieve the objectives of the Act, when granting rights consideration must be given to those whom were previously disadvantaged and grant rights to these new entrants. In *Minister of Environmental Affairs and Tourism and others v Phambili Fisheries (Pty) Ltd and another*,⁷⁴ the same consideration was made as *Bato Star Fishing (Pty) Ltd v Minister of Environmental Affairs and Tourism*⁷⁵ when granting of rights.

According to the regulations on 2020s fishing rights allocation process for granting of commercial fishing rights the department will review several policies in including the general policy on the Allocation and Management of Commercial Fishing Rights: 2013 and the Policy on Transfer of Commercial Fishing Rights: 2009⁷⁶ These policies are published in the Gazette.

Regulations regarding the allocation and management of rights to operate fish processing establishments in accordance with section 13 and section 18 of the MLRA have been published in the Gazette. According to the regulations:

‘By regulating the operation of fish processing establishments, the department seeks to curb the processing of fish that has been caught in contravention of the MLRA, without necessarily resulting in unintended consequences or causing difficulties with the enforcement of the MLRA. The proposed exemptions will also be monitored to ensure that they do not result in increased IUU fishing’.⁷⁷

Furthermore, the regulations stipulate that the right to operate a fish processing establishment is granted for a maximum period of fifteen years.⁷⁸ An ‘exclusionary criteria’ is

⁷¹ *West Coast Rock Lobster Association v The Minister of Environmental Affairs and Tourism* 2010 SA 487 (SCA).

⁷² *Ibid.* 2.

⁷³ *Bato Star Fishing (Pty) Ltd v Minister of Environmental Affairs and Tourism* 2004 (4) SA 490 (CC).

⁷⁴ *Minister of Environmental Affairs and Tourism and others v Phambili Fisheries (Pty) Ltd and another* 2003 (2) SA 616 (SCA).

⁷⁵ *Bato Star Fishing (Pty) Ltd v Minister of Environmental Affairs and Tourism* 2004 (4) SA 490 (CC).

⁷⁶ GN 718 of GG 41781, 20/07/2018.

⁷⁷ GN 1138 of GG 39417, 16/11/2015.

⁷⁸ *Ibid.*

to be followed when granting the allocation of rights for fish processing establishments. These include compliance, paper quotas and non-utilisation.⁷⁹

Section 14 deals with total allowable catches (TACs) of fish. TACs may be determined within a certain region, certain species of fish, certain fishing gear, fishing techniques or different sorts of fishing vessels. In *West Coast Rock Lobster Association v The Minister of Environmental Affairs and Tourism*⁸⁰, this provision was recognised as ‘one of the principal means which ensures that fish stocks are not over-exploited’.⁸¹ In *WWF South Africa v Minister of Agriculture, Forestry and Fisheries and Others*,⁸² WWF contended that regulations imposed for the TAC, by DAFF, on the West Coast Rock Lobster be declared invalid. WWF argued that the TAC is ‘a level which fundamentally undermines its long-term survival and the future of the fishermen who depend on this valuable resource’.⁸³ The case considered the provision, section 14 of the MLRA as a factor which determines the total annual regulation on the West Coast Rock Lobster. The court found in favour of the WWF. Marine species specific TACs are annually published by DAFF. In 2019, the TAC for the West Coast Rock Lobster was published at a TAC of 1084 tons.⁸⁴

According to section 15 a certain area within South Africa’s maritime zones may be announced as a fishery management area by notice in the Gazette. Within this area conservation and protection measures for marine species may be prescribed. According to DAFF’s branch marine resources management, within certain points in the following areas fishing is restricted: Saldanha Bay, Table Bay, Onrus River, Dyer Island and Mudge Point.⁸⁵ The allocation of these areas contributes to sustainable fishing and deterrence of IUU fishing. According to section 16 if a situation occurs which causes endangerment to marine species such activity must be suspended or the number of fisheries that may be taken or involved in that activity must be limited. In terms of section 17 an area may be announced to be a priority fishing area which requires special attention to ensure authorised fishing takes place. According to Norman and others, a priority fishing area is as an area which is used to ensure preservation of the utilisation

⁷⁹ *Ibid.*

⁸⁰ *West Coast Rock Lobster Association v The Minister of Environmental Affairs and Tourism* 2010 SA 487 (SCA).

⁸¹ *Ibid.* 5.

⁸² *WWF South Africa v Minister of Agriculture, Forestry and Fisheries and Others* 2018 SA 889 (WCHC).

⁸³ *Ibid.* 44.

⁸⁴ DAFF ‘Media Statement’ available at <https://www.daff.gov.za/docs/media/190926%20Media%20Statement%20TAC%20determined%20for%20the%202019-2020%20WCRL%20TAC%20Fishing%20Season.pdf>, accessed on 23 November 2019.

⁸⁵ DAFF ‘Marine Resources Management’ available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Marine-Resource-Management/Recreational-Fishing/Seasons>, accessed on 28 November 2019.

of a resource as well as the preservation of the ability to conduct fishing activities in that area.⁸⁶ Priority fishing areas are crucial to ensure the sustainability of marine living resources.⁸⁷

According to section 19 certain areas may be allocated for small scale-fishers to fish and any related fishing activity within this area may be declared as prohibited. In 2014, the Marine Living Resources Amendment Act⁸⁸ was passed for the purpose of the implementation of the small-scale fishing sector.⁸⁹ The amendment Act expanded on the small-scales fishing sector including mechanisms related to this sector.⁹⁰ Furthermore, the small-scale fisheries policy was passed to address historical imbalances prior to democracy.⁹¹ Some of the factors which the policy is aimed at, is ensuring equitable access to fishing and marine resources.⁹² According to the regulations processes and procedures relating to the allocation of small-scale fishing rights are prescribed.⁹³ Time periods, criteria for small-scale fishers, small-scale fishing communities and small-scale fishing rights allocation, small-scale fishing areas and zones and management of right of access are also prescribed in the regulations.⁹⁴

In accordance with section 21 an individual's right to commercial fishing may leased, divided or transferred. Rules may be restricted including the transfer of rights, the TAC maximum and minimum catch and the monitoring and control of these rights. According to the regulations these rights may only be transferred in accordance with the Policy for the Transfer of Commercial Fishing Rights⁹⁵ or relevant amendments thereof.⁹⁶ Furthermore, the regulations state:

‘In all cases a notification of a transfer of shares or a members’ interest must be served within 30 days of such sale or transfer, or any time-period set in applicable permit conditions. In addition, the Department’s approval is required for all cases in which the

⁸⁶ Centre for Environmental Rights ‘A Review and Strengthening of the Spatial Management of South Africa’s Offshore Fisheries’ available at https://cer.org.za/wp-content/uploads/2019/07/A-Review-of-Spatial-Management-in-South-Africas-Offshore-Fisheries_Final-Report-July-2018.pdf, accessed on 23 November 2019.

⁸⁷ *Ibid.*

⁸⁸ Marine Living Resources Amendment Act 5 of 2014.

⁸⁹ K.L Cochrane ‘Informing effective policies for responsible marine fisheries in South Africa. A report prepared for WWF: South Africa and the Responsible Fisheries Alliance’ available at <https://www.rfalliance.org.za/wp-content/uploads/2017/06/Cochrane-et-al-2015-Final-Report-Informing-effective-policies-for-marine-fisheries-1.pdf>, accessed on 24 November 2019.

⁹⁰ *Ibid.*

⁹¹ DAFF ‘Policy for the small-scale fisheries sector in South Africa’ available at <https://www.nda.agric.za/docs/Policy/PolicySmallScaleFishe.pdf>, accessed on 30 November 2019.

⁹² *Ibid.*

⁹³ GN 229 of GG 39790, 08/03/2016.

⁹⁴ *Ibid.*

⁹⁵ GN 529 of GG 32449, 31/07/2009.

⁹⁶ GN 1138 of GG 39417, 16/11/2015.

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sale or transfer of shares or a member's interest in a right-holder results in a change of control of the entity, or in the entity being less transformed than it was at the date on which rights are allocated. Failure to pay the required fees for the grant of a right or to apply for any permits during the first two years shall result in a cancellation of the right'.⁹⁷

According to DAFF an application process must be followed by the applicant seeking the right to commercially fish. These include applying within the time frame allocated by the department.⁹⁸ Section 23 prescribes regulations for local fishing vessel licences; in terms of this section an individual is not permitted to use a fishing vessel or utilise any right of access unless such individual is granted a local vessel fishing licence. According to regulations prescribed, in order to be granted a local fishing vessel licence the vessel must be registered and a vessel safety certificate must be obtained from the South African Maritime Safety Authority (SAMSA) website.⁹⁹ Furthermore, the local vessel fishing licence must be obtained from DAFF.¹⁰⁰

In accordance with section 28 an individual's rights, licences or permits are suspended and cancelled if that individual has given false or incomplete information in obtaining that right, licence or permit, contravened compliance with the Act or the conditions, is found guilty of an offence in accordance with the Act or does not actively utilise their right, licence or permit.¹⁰¹ Section 28 was considered in *Dyer Eiland Visserye (Pty) Ltd v Minister of Agriculture, Forestry and Fisheries and Another*¹⁰² in determining whether the long-term fishing rights of Dyer Eiland Visserye should be revoked due to a breach of permit conditions.¹⁰³ Dyer Eiland Visserye had allegedly 'over caught and exceeded its total allocated tonnage for the 2015 season'.¹⁰⁴ This breach essentially amounts to IUU fishing.

According to section 38 an international agreement entered by the South African government with regards to access of marine living resources in South African's maritime zones must not exceed the total allowable resources or the total allowable mass of fish. Any

⁹⁷ *Ibid.*

⁹⁸ DAFF 'FAQs' available at <https://www.daff.gov.za/daffweb3/FAQs/Fisheries-FAQ>, accessed on 23 November 2019.

⁹⁹ South African Government 'Apply for a local fishing vessel licence' available at <https://www.gov.za/services/fishing-permits/licence-local-fishing-vessel>, accessed on 24 November 2019.

¹⁰⁰ *Ibid.*

¹⁰¹ Marine Living Resources Act 18 of 1998.

¹⁰² *Dyer Eiland Visserye (Pty) Ltd v Minister of Agriculture, Forestry and Fisheries and Another* 2018 SA 162 (WCHC).

¹⁰³ *Ibid.*

¹⁰⁴ *Ibid.*

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agreement that is entered concerning the access to marine living resources must also contain a provision which prescribes a responsibility to the foreign State to comply with South Africa's management measures and any other necessary compliance. In terms of section 39 a foreign fishing vessel licence must be allocated, for the purposes of fishing or related activities in South Africa's maritime zones. This licence may be issued if the applicant supplies enough financial guarantees in accordance with the Act and satisfies conditions including insurance. If a condition of this licence is not adhered to then the master, charterer and owner of that vessel shall be guilty of an offence. In accordance with the Lu Huang Yuan Yu 186 incident and the Chinese vessel incident, these vessels were attempting to fish in South Africa's maritime zones without a valid foreign vessel licence which is in contravention of section 39 of the MLRA.

In terms of section 42 certain information may be provided by the Minister regarding management and conservation to international organisations which South Africa is a member State and to other member States of that international organisation. Furthermore, if the Director General suspects a contravention of the international agreement by a foreign vessel then this may be reported to the flag State of that foreign vessel. As indicated in chapter two, South Africa is a member State of many international instruments such as CITES and SADC. According to Cochrane, there is a need for improvement in the MLRA in accordance with international cooperation.¹⁰⁵ Furthermore, in the case of international cooperation in accordance with South Africa's global instruments, practice is far ahead of the policy requirements.¹⁰⁶

Prior to the enactment of the Marine Living Resources Amendment Act¹⁰⁷, section 43 dealt with the establishment of MPAs for protection of flora and fauna of a particular region and for fishery management of that region. No person shall fish or destroy flora and fauna of the MPA. The above-mentioned case of *Gongquose and others v Minister of Agriculture, Forestry and Fisheries and others*¹⁰⁸ dealt with this provision of the MLRA. In this case Gongquose and others were convicted as they had contravened the MLRA by attempting to fish in the Dwesa-Cwebe MPA. The case recognised that the MLRA stipulates that no person shall fish or attempt to fish in an MPA. Furthermore, the appellants' conduct of attempting to

¹⁰⁵ K.L Cochrane 'Informing effective policies for responsible marine fisheries in South Africa. A report prepared for WWF: South Africa and the Responsible Fisheries Alliance' available at <https://www.rfalliance.org.za/wp-content/uploads/2017/06/Cochrane-et-al-2015-Final-Report-Informing-effective-policies-for-marine-fisheries-1.pdf>, accessed on 24 November 2019.

¹⁰⁶ *Ibid.*

¹⁰⁷ Marine Living Resources Amendment Act 5 of 2014.

¹⁰⁸ *Gongquose and others v Minister of Agriculture, Forestry and Fisheries and others* 2018 SA 87 (SCA).

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fish in an MPA is in contravention of section 43 of the MLRA and this constitutes their conduct as unlawful. However, in light of the 2014 Marine Living Resources Amendment Act¹⁰⁹ section 43 has been repealed and imbalances faced by certain small-scale fishers due to the past and their customary rights are now recognised. It was therefore held in the SCA that the appellants conduct was not unlawful as the appellants were exercising a customary right to fish. This right continues to exist, and this right is not removed by the provisions of the MLRA.¹¹⁰ In accordance with the Marine living Resources Amendment Act¹¹¹ zones may be established subject to any laws relating to MPAs, where small-scale fishers may fish.¹¹² Although the appellants were granted a customary right to fish in the MPA this case portrays that fishing in an MPA is unlawful and this action will be prosecuted in any other given circumstance besides exercising a customary right to fish in accordance with the amendment Act.

In terms of section 44 no individual may engage in fishing activities in a manner that is prohibited or sell, receive or possess any fisheries that was obtained in contravention of this Act. It is evident in the *Bengis* case that section 44 was contravened. According to section 45 no individual must be in possession of gear that is beyond the minimum mesh size, gear that is in contravention of the Act and gear that is not in accordance with standards prescribed. Should fishing gear be in contravention of the Act this constitutes the fishing gear as illegal. According to the FAO mesh sizes of fishing gear are set for the purpose of the protection of juveniles of marine species and to reduce detrimental fishing practices.¹¹³ Section 47 of the Act deals with driftnet fishing. Unless granted a permit no vessel is to engage in driftnet fishing, no person is permitted to engage or assist in driftnet fishing activities and no person shall possess a driftnet on board a local fishing vessel or foreign fishing vessel where a foreign fishing vessel licence has been issued. It was highlighted in chapter one that this fishing practice causes detrimental effects on the environment. It is also an illegal practice, unless granted the necessary permit to use, in accordance with this provision and if fishing activities are practiced using driftnets this amounts to IUU fishing.

In terms of section 50 an individual may be assigned to observe vessels which possess fishing licences in accordance with the Act. The observer must exercise functions such as

¹⁰⁹ Marine Living Resources Amendment Act 5 of 2014.

¹¹⁰ *Gongquose and others v Minister of Agriculture, Forestry and Fisheries and others* 2018 SA 87 (SCA) 23 .

¹¹¹ Marine Living Resources Amendment Act 5 of 2014.

¹¹² *Ibid.*

¹¹³ FAO 'REC.CM-GFCM/33/2009/2 on the minimum mesh size in the codend of demersal trawl nets' available at <http://www.fao.org/3/a-ax885e.pdf>, accessed on 29 November 2019.

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monitoring and scientific functions. The FAO has stated that the functions of the observer is similar to a ‘watchdog’ which verifies that all national regulations are being adhered to.¹¹⁴ Furthermore, according to the FAO the purpose of the observer is to obtain information regarding fish stocks and fishing techniques for the purpose of stock assessments and for the purpose of MCS on board.¹¹⁵

Section 51 deals with fishery control officers who are authorised with a warrant to ‘enter and search any vessel or seize any property’.¹¹⁶ The officer may however, without a warrant command any vessel to stop in South Africa’s maritime zones and any local vessel which exits South Africa’s maritime zones. The inspector may also stop the master of a vessel from fishing, may command the master of a vessel to allow him to board the vessel, require certain relevant vessel or crew documentation in terms of this Act to be produced, examined and copies be made of each, may conduct an examination where it is believed to be necessary or the Act is believed to have been contravened, require the vessel master, crew or any individual on board to give an explanation regarding the vessel and with regards to any documentation. When the inspector:

‘Has reasonable grounds to believe that an offence in terms of this Act has been or is being committed, take or require the master to take the vessel to any place, port or harbour in the territory of the Republic for the purpose of carrying out any search, examination or enquiry’.¹¹⁷

The inspector may hereafter, instruct the master and crew of the stopped, boarded or searched vessel as necessary in accordance with the Act or have the master or crew comply with any condition of a licence.¹¹⁸ Furthermore, according to section 51, a fishery control officer without a warrant may enter any vessel if it is reasonably believed an offence is taking place such as illegal fishing is or an illegal device is being used in contravention of sections 44 or 45 of the Act. The officer may board a vessel in these circumstances, without a warrant, if the officer reasonably believes that a warrant would be issued or the officer reasonably suspects the vessel to be engaging in an offence in accordance with the Act. The officer may seize any property on board if the individual in charge of the vessel consents to the seizure or if the officer

¹¹⁴ FAO ‘Fisheries Observers - Terms of Reference’ available at <http://www.fao.org/3/S8480E/S8480E02.htm>, accessed on 22 November 2019.

¹¹⁵ *Ibid.*

¹¹⁶ Marine Living Resources Act 18 of 1998.

¹¹⁷ *Ibid.*

¹¹⁸ *Ibid.*

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has reasonable grounds to believe that a warrant would be issued and, in such circumstances, there is no room for delay. Also in the circumstance should the officer have reasonable grounds to believe that the vessel or any part thereof has been used in the commission of an offence, if it is suspected that vessel or any part thereof has already been seized or forfeited in accordance with the Act, any device used in an offence in contravention of the Act may also be seized. Section 51 also states that an officer may seize ‘any fish or any related product which he/she has reasonable grounds to suspect has been taken or produced in the commission of such offence or which is possessed in contravention of the Act’.¹¹⁹ The officer may arrest any individual who they reasonably believe has contravened the Act. Therefore, there is a clear link between IUU fishing and these provisions of the MLRA.

In terms of section 53 a vessel which is seized in terms of section 51 must be taken to the port within the territory of South Africa where the vessel will be detained pending proceedings. In accordance with the Lu Huang Yuan Yu 186 incident, discussed above, the captured vessel was seized and brought to the Cape Town harbour pending proceedings.¹²⁰ In terms of section 56 the master, crew and any relevant person must cooperate with officials. In terms of section 57 any individual who holds a right, permit or licence in accordance with this Act must report to the Minister if any individual contravenes the Act. These include engaging in IUU fishing activities therefore, this provision is important for deterrence of IUU fishing. According to section 58, any person who contravenes a provision of the Act: ‘shall be guilty of an offence and liable on conviction to a fine not exceeding R2 million, or imprisonment for a period not exceeding five years’.¹²¹ Furthermore, any person who contravenes a provision of an international conservation and management measure within South Africa’s maritime zones or a provision in terms of chapter three of the Act, which relates to vessels registered in South Africa, ‘shall be guilty of an offence and liable on conviction to a fine not exceeding R3 million’.¹²² Regulations under this Act may provide that a person who ‘contravenes or fails to comply with a provision thereof, shall be guilty of an offence and liable on conviction to a fine or imprisonment for a period not exceeding two years’.¹²³ In accordance with the incidents and cases discussed including the Chinese vessel incident, the offenders were charged fines in

¹¹⁹ *Ibid.*

¹²⁰ Caryn Dolley ‘Illegal fishing vessel held in Cape Town harbour’ available at <https://www.iol.co.za/news/illegal-fishing-vessel-held-in-cape-town-harbour-2021748>, accessed on 28 November 2019.

¹²¹ Marine Living Resources Act 18 of 1998.

¹²² *Ibid.*

¹²³ *Ibid.*

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accordance with the MLRA. It was stressed that these fines are insignificant in comparison to the actual cost that act of IUU fishing has caused. In terms of section 60 upon notification a fishery control officer may board a vessel then no individual on board may destroy any evidence such as destroying fishing gear and throwing fish overboard. In an international incident, an illegal Chinese vessel, the Fu Yuan Yu 076 had engaged in IUU fishing on the South China Sea and had been caught destroying evidence of their driftnet gear in board.¹²⁴

If the items seized in accordance with section 51 are perishable items, such as marine species, then according to section 63 these items maybe be returned to the person who it was seized from upon receiving security equivalent to the value of the item, sell the item at a reasonable price and pay the proceeds towards the suspense account of the department pending a court order in respect of the payment, items may be disposed of in the circumstance if cannot be sold and live fish may be released or destroyed at the discretion of the fishery control officer. Section 68 deals with forfeiture orders made by the court including if an individual is found guilty of an offence in accordance with the Act then the court may order in addition to the penalty: vessels, equipment, gear, any perishables such as fish caught unlawfully, any money received in respect of the sale of such fish caught unlawfully to be forfeited to the State.

In accordance with section 70, conduct in contravention of the Act and committed by an individual within South African waters or on board a local fishing vessel will be dealt with in judicial proceedings. The competent court to hear such matters is the Magistrates Court. In terms of section 77 regulations may be imposed in accordance with the Act including fisheries processing establishments, fishing licences, the navigation of foreign vessels, importing and exporting of fisheries, protection of MPAs, limitations on the catch and utilisation of fisheries, the implementation of conservation, management and protection for marine living resources or specific marine species, setting of fines that are larger than those prescribed by the Act, the forfeiture of any fish obtained in contravention of the Act and the forfeiture of a vessel which was used to commit an offence in accordance with the Act. Several regulations have been published in the Gazette by the Minister in accordance with section 77, some discussed above. MPAs are recognised and established according to the regulations, these include the Pondoland

¹²⁴ Sea Sheperd 'Illegal Chinese Fishing Vessel Enters South China Sea' available at <https://www.seashepherdglobal.org/nl/nieuws-en-events/destroy-evidence/>, accessed on 22 November 2019.

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MPA.¹²⁵ In terms of section 80 a decision may be appealed taken by someone who is given power in accordance with the Act¹²⁶ or section 238 of the Constitution.¹²⁷

Section 81 deals with exemptions from the Act. If it is reasonable then any person, persons or organ of State from the provisions of the MLRA. The exemption granted may be cancelled or amended. Highlighted above, in *West Coast Rock Lobster Association v The Minister of Environmental Affairs and Tourism*,¹²⁸ section 81 of the MLRA was considered. On appeal it was argued that section 81 must not be extended to the granting of fishing rights so the decision to grant subsistence fishers the right to catch and sell the West Coast Rock Lobster be set aside. However, as indicated above, the appeal was dismissed. The case, *Laingville Fisheries (Pty) Ltd v The Minister of Environmental Affairs and Tourism*¹²⁹ described section 81 of the MLRA as a ‘wide discretion’. The case dealt with the granting of fishing rights where applications for fishing rights were lodged beyond the time deadline. The court held that in accordance with section 81 of the MLRA the exemption provision may be implemented to exempt individuals from that deadline.¹³⁰ This case illustrates that fishing rights may be granted beyond the deadline and if granted these rights beyond this deadline and such person engages in fishing activities in accordance with this right this does not amount to IUU fishing due to the exemption clause. This case also illustrates how this provision may be applied and in what circumstances exemptions are permissible in terms of the MLRA. Furthermore, this is also portrayed in the regulations prescribed in accordance with section 81 of the MLRA. According to these regulations exemption may be granted to:

‘Fishmongers, restaurants, fish shops, supermarkets, large chain stores, authorised fishing vessels that only pack fish in crates or use ice to land fresh fish, those engaged in the drying of legally caught and purchased fish; and the cleaning, heading, gutting, gilling and tailing of fish on board an authorised fishing vessel from Sections 1, 13 and

¹²⁵ GN 694 of GG 26430, 04/06/2004.

¹²⁶ Marine Living Resources Act 18 of 1998.

¹²⁷ According to section 238 of the 1996 Constitution: ‘An executive organ of state in any sphere of government may delegate any power or function that is to be exercised or performed in terms of legislation to any other executive organ of state, provided the delegation is consistent with the legislation in terms of which the power is exercised or the function is performed or exercise any power or perform any function for any other executive organ of state on an agency or delegation basis’.

¹²⁸ *West Coast Rock Lobster Association v The Minister of Environmental Affairs and Tourism* 2010 SA 487 (SCA) 10.

¹²⁹ *Laingville Fisheries (Pty) Ltd v The Minister of Environmental Affairs and Tourism* 2008 SA 28 (WCHC).

¹³⁰ *Ibid.* 10-11.

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18 of the MLRA for unspecified period of time or until such time that the MLRA is amended'.¹³¹

However, in accordance with the regulations should there be sign of fisheries stocks, aquatic life, aquatic species or class of fisheries or aquatic life in any fishery or part of a fishery which may be subject to endangerment then the Minister may in accordance with section 16, highlighted above, suspend specified part of such fisheries operation or the entire operation or impose restrictions to address the state of emergency. Otherwise, the Minister may impose section 81(2) of the MLRA at any time by cancelling or amending the exemption granted.¹³² Further regulations in accordance with section 81 have taken section 1 of the MLRA into account including the definition of a fish processing establishment, according to these regulations:

'The wide definition of fish processing establishments has led to many unintended consequences and caused difficulties with the enforcement thereof. It is therefore proposed that fishmongers, restaurants, fish shops, supermarkets, large chain stores, the drying of legally caught and purchased fish, the cleaning, gilling and tailing of fish on board an authorised fishing vessel and authorised fishing vessels that only pack fish in crates or use ice to land fresh fish be exempted in terms of section 81 of the MLRA from the provisions of sections 1, 18 and 13 of the MLRA insofar as it relates to fish processing. These exemptions must be monitored to ensure that it does not lead to increased IUU fishing'.¹³³

Therefore, from its description above, several provisions in the MLRA read in accordance with regulations and relevant policies are applicable to IUU fishing. As highlighted above, in *Bato Star Fishing (Pty) Ltd v Minister of Environmental Affairs and Tourism*¹³⁴ and *Minister of Environmental Affairs and Tourism and others v Phambili Fisheries (Pty) Ltd and another*,¹³⁵ the applicability of the objectives and principles from the MLRA was considered. *Bato Star Fishing (Pty) Ltd v Minister of Environmental Affairs and Tourism*,¹³⁶ recognised that the objectives set out in section 2 of the MLRA are incapable of immediate or short-term' fulfilment.¹³⁷ The Act calls for the composition of a consultative advisory forum, however, for

¹³¹ GN 1395 of GG 41321, 15/12/2017.

¹³² *Ibid.*

¹³³ GN 508 of GG 38871, 12/06/2015.

¹³⁴ *Bato Star Fishing (Pty) Ltd v Minister of Environmental Affairs and Tourism* 2004 (4) SA 490 (CC).

¹³⁵ *Minister of Environmental Affairs and Tourism and others v Phambili Fisheries (Pty) Ltd and another* 2003 (2) SA 616 (SCA).

¹³⁶ *Bato Star Fishing (Pty) Ltd v Minister of Environmental Affairs and Tourism* 2004 (4) SA 490 (CC).

¹³⁷ *Ibid.* 5-6.

several years a forum has never been composed and only recently in 2019 nominations were called for the composition of the forum.¹³⁸ The composition of the forum is significant as the forum advises and informs the Minister on matters including the management of fisheries and TAC of fisheries. The management of fisheries is emphasised in this dissertation as a crucial factor which contributes to deterrence of IUU fishing and furthermore, the allocation of correct TACs is significant to sustainability of marine resources and in turn the management of these marine resources. The Act prescribes provisions and regulations for the commercial fishing sector and small-scale fishing sector. The provisions of the MLRA and its regulations help with deterrence of IUU fishing as they provide measures such as fishing licences, total allowable catches (TACs), permits, granting of fishing rights, and penalties for non-compliance, fishing licences are also prescribed and regulated for both foreign fishing vessels and local fishing vessels. These provisions and further regulations highlighted above, are detailed in their application and help with deterrence of IUU fishing.

Fishing without a valid licence or permit amounts to IUU fishing. In accordance with foreign and local fishing licences in the MLRA, it is a crucial requirement that these vessels meet criteria in accordance with the regulations, highlighted above, to obtain a licence including a vessel safety certificate in the case of local fishing vessels. In accordance with the MLRA's provision on permits, the right to commercial and small-scale fishing may occur only if an individual has obtained the necessary permit for such activity. The MLRA regulates the granting of permits and prescribes fees for obtaining these permits. Conditions are also stipulated when granting these permits and should there be a breach of these conditions, the permit may be cancelled and fishing rights may be suspended. Conditions of permits are recognised by the Act to manage species. The principle of the case, *Dyer Eiland Visserye (Pty) Ltd v Minister of Agriculture, Forestry and Fisheries and Another*.¹³⁹, highlighted above, had portrayed a breach of permit conditions where Dyer Eiland Visserye had allegedly 'over caught and exceeded its total allocated tonnage for the 2015 season'. Therefore, while the party in question may be in possession of a permit, the MLRA recognises the breach of conditions of this permit and these include overfishing which essentially amounts to IUU fishing such as portrayed in the case. It was illustrated in the *Bengis* case, the Chinese vessel incident and the

¹³⁸ Department of Environmental Affairs 'Withdrawal of prior notice and call for nominations for appointment on the consultative advisory forum' available at https://www.gov.za/sites/default/files/gcis_document/201908/42608gon1018.pdf, accessed on 25 November 2019.

¹³⁹ *Dyer Eiland Visserye (Pty) Ltd v Minister of Agriculture, Forestry and Fisheries and Another* 2018 SA 162 (WCHC).

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Lu Huang Yuan Yu 186 incident where the parties were fishing or attempting to fish without the required permits or licences and this has amounted to IUU fishing in contravention of the MLRA. These provisions and regulations stipulate criteria, conditions and the asking of fees. The breach of the conditions of a permit or fishing without a permit or licence will also result in a contravention of the Act and such persons will be prosecuted should they be caught. Therefore these provisions are significant for the deterrence of IUU fishing and permits and licences are well regulated in accordance with the Act. Permits which have been allocated to fishers have also listed the main laws to which that permit is subject to including legislative provisions from NEMA and the Biodiversity Act.¹⁴⁰

The allocation of fishing rights in accordance with the MLRA is often a controversial issue. The head of the South African Deep-Sea Trawling Industry Association (SADSTIA) has stated when allocating fishing rights, the contribution of commercial fishers to the economy must be considered.¹⁴¹ Furthermore, rights must be allocated in a sensible manner to ensure jobs and competing international interests.¹⁴² Fishing rights of over fifteen years have been handed over to several small-scale fishers. Although in accordance with the regulations several policies are taken into consideration when allocating these fishing rights, the allocation of these rights is seen as a challenge due to limited and some depleted fish stocks at sea.¹⁴³

The regulations regarding granting the right to fish processing establishments in accordance with section 13 and 18 of the MLRA are significant for the deterrence of IUU fishing as one of the aims of these regulations is curbing the processing of fish caught in contravention of the MLRA. The regulations also reiterate the monitoring of exemptions in accordance with section 81 to ensure these do not result in IUU fishing. As highlighted in chapter two, under the marine stewardship council (MSC) many fish processing establishments engage in IUU fishing activities and this was also further illustrated in South Africa in the *Bengis* case. Therefore these provisions and regulations are important in the fight against IUU fishing in South Africa's maritime zones. According to DAFF a fish processing establishment

¹⁴⁰ K.L Cochrane 'Informing effective policies for responsible marine fisheries in South Africa. A report prepared for WWF: South Africa and the Responsible Fisheries Alliance' available at <https://www.rfalliance.org.za/wp-content/uploads/2017/06/Cochrane-et-al-2015-Final-Report-Informing-effective-policies-for-marine-fisheries-1.pdf>, accessed on 24 November 2019.

¹⁴¹ Joseph Booysen 'SA deep-sea trawling companies losing just 10% fishing quota spells catastrophe' available at <https://www.iol.co.za/business-report/companies/sa-deep-sea-trawling-companies-losing-just-10-fishing-quota-spells-catastrophe-19736949>, accessed on 1 December 2019.

¹⁴² *Ibid.*

¹⁴³ Parliamentary Monitoring Group 'Small-scale commercial fisheries challenges: DAFF briefing, with Minister present' available at <https://pmg.org.za/committee-meeting/23996/>, accessed on 2 December 2019.

permit will only be granted if a fishing right has been granted.¹⁴⁴ Therefore, this provision is also related to the allocation of fishing rights provision and section 21 which deals with the right to commercial fishing including the right to commercial fishing may be leased, divided or transferred. Fish processing establishments engage in commercial fishing as illustrated in the *Bengis* case. In this case several parties linked to the company engaged in IUU fishing activities therefore it is important that this right be regulated and South Africa has imposed necessary policies and regulations in accordance with this provision as highlighted above, including notification of transfer of shares or members interest within 30 days.

As highlighted in chapter one, IUU fishing by local vessels and the small-scale industry is just as significant as IUU fishing carried out by commercial fleets and foreign vessels.¹⁴⁵ As case law suggests and taking into account policies, regulations and detailed provisions of the MLRA, the small-scale fishing industry in South Africa is well established. By prescribing these regulations and policies for the small-scale fishing industry including those previously disadvantaged and local seafarers this contributes to deterrence of IUU fishing by small-scale fishers and local seafarers. These include measures stipulated in the regulations including fees payable for permits for species specific fisheries as well as the regulations for fees payable for applications and the issuing of rights, permits and licences in the small-scale fisheries sector¹⁴⁶ in accordance with section 25 of the MLRA. The payment of these fees contributes to the protection of fisheries stocks and therefore deterrence of IUU fishing. These regulations also ensures a sound system for sustainable utilisation of fisheries stocks by small-scale fishers including those engaging in fish processing establishments, furthermore should small-scale fishers not abide by these regulations it will be held as a contravention of the Act and sanctions and penalties will be imposed should such person not get away with this act. The amendment Act, the regulations, policies and case law, highlighted above has also recognised the rights of small-scale fishers whom were subject to historical imbalances accordingly these individuals do not have to pay permit fees if fishing for food purposes and their customary right to fish is recognised. This is warranted given the past circumstances. South Africa in accordance with these laws, policies and regulations, discussed above, has implemented a good system to deal with this issue given that several other issues such as depletion of fisheries stocks and IUU

¹⁴⁴ South African government 'Apply for a fish processing establishment permit' available at <https://www.gov.za/services/fishing-permits/fish-processing-establishment>, accessed on 20 July 2020.

¹⁴⁵ O Drammeh 'Illegal, Unreported & Unregulated Fishing In Small-Scale Marine And Inland Capture Fisheries' available at <http://www.fao.org/3/Y3274E/y3274e09.htm>, accessed on 6 July 2020.

¹⁴⁶ GN 558 of GG 40906, 09/06/2017.

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fishing also has to be dealt with accordingly. For example small-scale fishing areas and zones as well as management areas have been established in accordance with the regulations, highlighted above.

The MLRA states that TAC of fisheries must be provided. This means that quotas are prescribed for fish catch and if persons go beyond the allocated fish catch then they may be liable of an offence. With regards to IUU fishing it is evident in accordance with the *Bengis* case, the company fished more than their allocated quota which had resulted in IUU fishing and conviction of the directors involved. In accordance with the case *WWF South Africa v Minister of Agriculture, Forestry and Fisheries and Others*,¹⁴⁷ the TAC which was determined for the West Coast Rock Lobster was ordered to have caused a further decline in the resource and therefore, declared unconstitutional and in contravention of NEMA, discussed below.¹⁴⁸ The West Coast Rock Lobster is a valuable resource which is often subject to IUU fishing as portrayed in the *Bengis* case. To ensure the long-term survival of such species it is evident from this case that the TAC need to be set considering such circumstances.

Fishery management areas and priority fishing areas are allocated for the purpose of ensuring protection of marine resources. This provision is crucial as fishery management areas and priority areas help with deterrence of IUU fishing as they provide measures for the protection of species within certain points of the ocean as well as ensure authorised activities such as authorised fishing take place within this region. Any activity which causes danger to marine species may be suspended such as IUU fishing. Although fishery management areas are provided for in the Act, WWF estimates less than 0.5 percent of marine ecosystems are protected in South Africa.¹⁴⁹ The issue in relation fishery management areas and priority fishing areas is identifying the actual location of these areas.

In accordance with the MLRAs provisions on South Africa's international commitments, actual compliance and cooperation of the State in its international commitments need to be active in order to complement these provisions successfully. In accordance with South Africa's global framework for the deterrence of IUU fishing discussed in the previous

¹⁴⁷ *WWF South Africa v Minister of Agriculture, Forestry and Fisheries and Others* 2018 SA 889 (WCHC).

¹⁴⁸ *Ibid* 50.

¹⁴⁹ WWF 'Ocean Facts and Figures: Valuing South Africa's ocean economy' available at http://awsassets.wwf.org.za/downloads/wwf_oceans_facts_and_futures_report_oct16.pdf, accessed on 19 July 2020.

chapter, South Africa has several responsibilities in accordance with the instruments applicable to the State. International cooperation by South Africa will be further discussed in chapter five.

The importance of the establishment of MPAs was emphasised in chapter one. The MLRA and its regulations call for the establishment of MPAs however in light of the MLRA amendment Act zones must be established subject to any laws relating to MPAs, where small-scale fishers may fish. In addition to the Dwesa-Cwebe MPA discussed in the *Gongquose and others v Minister of Agriculture, Forestry and Fisheries and others*¹⁵⁰ case above, a further example of an MPA is the Stilbaai MPA which exists in South Africa's coastal waters.¹⁵¹ Regulations have been published in the Gazette pertaining to the management of this MPA in accordance with the MLRA and the National Environmental Management: Protected Areas Act.¹⁵² An example of these regulations include that 'no person may operate or attempt to operate any vessel within the MPA in contravention of any rule, notice, directive or other prescript issued by SAMSA'.¹⁵³ Furthermore, the establishment of these zones where small-scale fishers may fish is warranted given the historic balances of the past, however, as highlighted in chapter one, MPAs are important as the regulations imposed on these areas are aimed at protecting and conserving marine living resources and therefore this contributes to deterrence of unlawful activities in these areas such as IUU fishing.

The sale, receiving and purchasing of fish obtained in contravention of the Act is prohibited, in accordance with section 44. In the *Bengis* case it was evident that all three factors were present. Section 68 discusses forfeiture and goes on to emphasise that fish which has been obtained unlawfully must be forfeited to the State. Therefore section 44 links to this provision in its application. Possession of prohibited fishing gear is also an offence in terms of the Act. These provisions are important and its application and implementation is crucial to deterrence of IUU fishing as the possession or use of illegal fishing gear causes disastrous effects on the marine environment and results in IUU fishing. Fishing gear such as driftnets, unless granted a permit to use this gear, may be used to commit the offence of IUU fishing. In the Chinese vessel incident illegal fishing gear was found on board and was being used carry out IUU fishing. Observers of fishing vessels are also made provision for and carry out tasks such as monitoring of these vessels and their activities. The Act therefore provides for MCS

¹⁵⁰ *Gongquose and others v Minister of Agriculture, Forestry and Fisheries and others* 2018 SA 87 (SCA).

¹⁵¹ WWF South Africa 'Stilbaai' available at <http://mpaforum.org.za/portfolio/stilbaai-nature-reserve/>, accessed on 30 July 2020.

¹⁵² National Environmental Management: Protected Areas Act 57 of 2003.

¹⁵³ GN 321 of GG 43110, 20/03/2020.

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mechanisms of fishing activities which are crucial to deter IUU fishing. There is also regulations prescribed for the criteria of appointing these observers which is determined by DAFF.

Fishery control officers are covered in several provisions of the MLRA as pointed out above. According to the Mail and Guardian, there is a small number of fishery control officers whom are available to carry out their duties in accordance with the MLRA.¹⁵⁴ A greater number of fishery control officers is significant as these officers carry out important duties, highlighted above, such as inspection of vessels which helps with the deterrence of IUU fishing. Fines and penalties as a result of contravention of the Act such as engaging in IUU fishing are contained in the MLRF which is used in a responsible manner to contribute to the management of department revenue.¹⁵⁵ Penalties such as the arrest of persons and forfeiture, detaining, seizure of vessels and goods are stipulated for contravening the Act, as highlighted above. These penalties are detailed and provide secure measures for deterrence as seafarers will be reluctant to engage in IUU fishing should they be aware of these penalties. With regards to the penalty of a fine due to a contravention of the Act, as emphasised from the *Bengis* case, is insignificant compared to the actual value that the damage that act of IUU fishing may cause. Therefore, as previously emphasised, IUU seafarers will be reluctant to stop engaging in IUU fishing as the fine is negligible compared to the profit gain. An article by the Mail and Guardian states that fishing crimes such as IUU fishing has been dealt with as a fishing management issue rather than as a crime therefore the fines that have been imposed as a result of IUU fishing are small.¹⁵⁶ Court judicial processes for the contravention of the Act as well as appeals are also made provision for as highlighted above. These provisions are extensive and therefore, it is evident that penalties and the court processes and findings are well established. In addition NEMA prescribes additional processes, penalties and sanctions to the MLRA, discussed below. According to Cochrane one of the MLRA weak points in comparison to other frameworks is that the Act does not make use of the ‘best scientific evidence in making decisions’.¹⁵⁷

¹⁵⁴ Hennie van As ‘Fishing for a solution to catch marine life smugglers’ available at <https://mg.co.za/article/2019-10-02-00-fishing-for-a-solution-to-catch-marine-life-smugglers/>, accessed on 29 November 2019.

¹⁵⁵ DAFF ‘Financial Management Marine Living Resources Fund (MLRF)’ available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Financial-Management-MLRF/revenue>, accessed on 20 November 2019.

¹⁵⁶ *Ibid.*

¹⁵⁷ K.L Cochrane ‘Informing effective policies for responsible marine fisheries in South Africa. A report prepared for WWF: South Africa and the Responsible Fisheries Alliance’ available at <https://www.rfalliance.org.za/wp-content/uploads/2017/06/Cochrane-et-al-2015-Final-Report-Informing-effective-policies-for-marine-fisheries-1.pdf>, accessed on 24 November 2019.

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The exemption of certain persons and establishments from the provisions of the Act have been established and are accordingly regulated, highlighted above. It may be argued that permitting exemption to the granting of fishing rights is significant as persons or establishments may engage in commercial fishing, small-scale fishing or the right to engage in a fish processing operation, without a permit, licence and payment of necessary fees which essentially amounts to IUU fishing. However, these regulations have considered IUU fishing and have stated should fisheries stocks be endangered then that fisheries operation will be suspended, restrictions will be imposed or the exemption will be cancelled or amended. Furthermore, these exemptions are monitored to prevent increased IUU fishing. Therefore, these exemptions are warranted given that they see to factors as prescribed in the regulations such as IUU fishing.

The above analysis proves that the MLRA provides necessary measures and mechanisms in its provisions and regulations which play a crucial role in the deterrence of IUU fishing however, these provisions entail the requirement of implementation and enforcement which will contribute efficiently to the deterrence of IUU fishing. In accordance with the IUU fishing incidents and the *Bengis* case discussed above it is evident that the seafarers engaging in IUU fishing get away with this act easily therefore proper implementation of these provisions is crucial to ensure these seafarers are caught and prosecuted in accordance with the Act. In addition to the requirement of implementation of the provisions of the MLRA, compliance of the Act by organs of State, persons whom the Act is applicable to and compliance by all South Africans is crucial. Glazewski has emphasised the importance of compliance with the provisions of the MLRA and furthermore stated that it need to be improved.¹⁵⁸ Necessary persons need to carry out their duties correctly to ensure IUU fishing deterrence. The MLRAs shortcomings and recommendations will be discussed in chapter five.

(c) The National Environmental Management Act (NEMA)

NEMA¹⁵⁹ provides a general framework for environmental management and conservation. The Act is aimed at the realisation of the right to an environment that is not harmful to the wellbeing of the present and future inhabitants of South Africa and the realisation of secure ecologically

¹⁵⁸ Jan Glazewski *Environmental Law in South Africa: Second edition* (2005) 417.

¹⁵⁹ National Environmental Management Act 107 of 1998.

sustainable development whilst promoting social and economic development. The Act consists of several provisions pertaining to the prevention of pollution, ecological degradation and the promotion of conservation of the environment.¹⁶⁰ NEMA is the primary piece of legislation which governs the environment in South Africa.¹⁶¹ Prior to the enactment of NEMA, the Environment Conservation Act (ECA),¹⁶² discussed below, was the framework which was most closely related to NEMA.¹⁶³ Several provisions of the ECA¹⁶⁴ have been repealed by NEMA. The analysis of NEMA is provided below. The provisions of NEMA which may be relevant to IUU fishing are pointed out and its application is discussed below. A further discussion is provided hereafter, for the purpose portraying links amongst these provisions and IUU fishing.

Relevant definitions in terms of the Act include ‘ecosystem’ and ‘environment’:

‘Ecosystem means any self-sustaining and self-regulating community of organisms and the interaction between such organisms with one another and with their environment,¹⁶⁵ the environment includes the surroundings of which humans exist and are made of: land, water and atmosphere of the earth, microorganisms, plant and animal life’.¹⁶⁶

Section 2 of the Act contains an extensive list of national environmental management principles:

Section 2(1) states: ‘The principles set out in this section apply throughout the Republic to the actions of all organs of State that may significantly affect the environment’.¹⁶⁷

Section 2(2) states: ‘Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably’.¹⁶⁸

This section goes on to state principles which establishes the need for sustainable development of the environment whilst considering factors such as ecosystems and the need to ensure these ecosystems are not interrupted, result in a decline in biodiversity, degradation of

¹⁶⁰ *Ibid.*

¹⁶¹ Rhodes University ‘Environmental Legislation and Policies’ available at <https://www.ru.ac.za/environment/resources/envirolegislation/>, accessed on 16 September 2019.

¹⁶² Environment Conservation Act 73 of 1989.

¹⁶³ Michael Kidd *Environmental Law* (2011) 35.

¹⁶⁴ Environment Conservation Act 73 of 1989.

¹⁶⁵ National Environmental Management Act 107 of 1998.

¹⁶⁶ *Ibid.*

¹⁶⁷ *Ibid.*

¹⁶⁸ National Environmental Management Act 107 of 1998.

the environment is avoided, the exploitation and utilisation of ecosystems is not overexploited to the point where their unification is threatened, a cautious management approach is applied which takes into consideration all relevant factors and consequences, negative consequences on the environment and on the environmental rights of individuals, the utilisation and exploitation of a resource must be done responsibly and equitably with due consideration of the consequences of depletion of that resource.¹⁶⁹ This section further infers that in the circumstance where these factors cannot be accomplished they are at least remedied and tried to be fulfilled to the greatest extent possible.¹⁷⁰

Furthermore, according to section 2, the Act considers interests, values, basic human needs and the well-being of all individuals, whilst implementing environmental management plans and equitable access to resources by these individuals. There must be no conflict of interest in management processes and access to information must in accordance with the law. The costs of environmental degradation must be paid for by those who are responsible for such degradation. Endangered and exposed ecosystems such as coastal shores and similar systems must be given special consideration in management especially in the circumstance where these systems are subject to great human consumption as well as great developmental pressure, to ensure sustainable development. According to Kidd, the principles stated in accordance with this section are relatable to international environmental management principles including the Rio Principles.¹⁷¹ It is noteworthy to mention that several cases dealt with section 2 of NEMA. These cases include, *inter alia*, *Minister of Public Works v Kyalami Ridge Environmental Association*,¹⁷² *MEC for Agriculture, Conservation, Environment & Land Affairs v Sasol Oil (Pty) Ltd*,¹⁷³ and *WWF South Africa v Minister of Agriculture, Forestry and Fisheries and Others*.¹⁷⁴

The case *Minister of Public Works v Kyalami Ridge Environmental Association*,¹⁷⁵ recognised the provisions stated in section 2 of NEMA. It was pointed out that the principles in section 2(1) apply to activities which only ‘significantly’ affect the environment. Furthermore, it was emphasised that the principles contained in section 2 ‘are directed to the

¹⁶⁹ *Ibid.*

¹⁷⁰ *Ibid.*

¹⁷¹ Michael Kidd *Environmental Law* (2011) 38.

¹⁷² *Minister of Public Works v Kyalami Ridge Environmental Association* 2001 (3) SA 652 (CC).

¹⁷³ *MEC for Agriculture, Conservation, Environment & Land Affairs v Sasol Oil (Pty) Ltd* 2005 (2) SA 17 (SCA).

¹⁷⁴ *WWF South Africa v Minister of Agriculture, Forestry and Fisheries and Others* 2018 SA 889 (WCHC).

¹⁷⁵ *Minister of Public Works v Kyalami Ridge Environmental Association* 2001 (3) SA 652 (CC).

formulation of environmental policies by relevant organs of State and in the drafting and adopting of their environmental implementation and management plans rather than controlling the manner in which organs of State use their property'.¹⁷⁶ In *MEC for Agriculture, Conservation, Environment & Land Affairs v Sasol Oil (Pty) Ltd*,¹⁷⁷ it was recognised that section 2 of NEMA must be used as a guideline when interpreting any law regarding protection and conservation of the environment. Furthermore, the principle of sustainable development is the focal point, and organs of State must evaluate the social, economic and environmental impact of these activities.¹⁷⁸ In another case, *WWF South Africa v Minister of Agriculture, Forestry and Fisheries and Others*,¹⁷⁹ which has been discussed in provisions of the MLRA above, the case had considered section 2 of NEMA in reaching the decision.

The purposes of environmental management plans are set out in section 12. These include to ensure coordination with environmental policies, programs and decisions by national functionaries. Section 16 deals with compliance with management plans including compliance from every organ of State which must responsibly exercise their functions to perform their duties in ensuring protection of the environment. An example of an environmental management plan is the 2009 Aganang environmental management plan. The plan was proposed for the Aganang local municipality in Polokwane.¹⁸⁰ The purpose of this plan was described as: 'to identify and describe environmental issues and risks within Aganang municipality and develop strategies to minimise, mitigate, avoid, rehabilitate and manage possible environmental impacts, threats and risks'.¹⁸¹ One of the issues identified was illegal fishing.¹⁸² The plan proposed to make use of cooperative governance and environmental monitoring, *inter alia*, to deal with issues.¹⁸³

Chapter seven of NEMA, containing sections 28-34 are important provisions pertaining to the people of the public, as the rest of the Act is aimed at organs of the State.¹⁸⁴ Section 28 deals with the 'duty of care and remediation of environmental damage,'¹⁸⁵ individuals who

¹⁷⁶ *Ibid* 1461 – 1471.

¹⁷⁷ *MEC for Agriculture, Conservation, Environment & Land Affairs v Sasol Oil (Pty) Ltd* 2005 (2) SA 17 (SCA).

¹⁷⁸ *Ibid*.

¹⁷⁹ *WWF South Africa v Minister of Agriculture, Forestry and Fisheries and Others* 2018 SA 889 (WCHC) 50.

¹⁸⁰ South African Government 'Environmental Management Plan Aganang Local Municipality' available at <http://www.aganang.gov.za/docs/plans/Microsoft%20Word%20-%20Aganang%20EMP%20v.9.pdf>, accessed on 16 January 2019.

¹⁸¹ *Ibid*.

¹⁸² *Ibid*.

¹⁸³ *Ibid*.

¹⁸⁴ Michael Kidd *Environmental Law* (2011).

¹⁸⁵ National Environmental Management Act 107 of 1998.

perform activities which result in significant environmental degradation must take measures to stop, avoid or minimise such degradation from recurring in the future. According to Glazewski an aspect of this section that must be considered is that, it applies to every person in the Republic.¹⁸⁶ A further point to consider is that section 28 refers to ‘significant’ pollution or degradation. In *Hichange Investments (Pty) Ltd v Cape Produce Co (Pty) Ltd t/a Pelts Products and Others*¹⁸⁷ ‘when referring to ‘significant’ pollution or degradation the Constitutional right to an environment instrumental to the health and well-being of all individuals, must be considered’.¹⁸⁸ In 2019, the case *Uzani Environmental Advocacy CC v BP Southern Africa (Pty) Ltd*,¹⁸⁹ was heard. In this case, BP had unlawfully constructed a filling station without environmental authorisation as required in accordance with NEMA and the ECA, discussed below. Section 28 of NEMA was considered and read in conjunction with section 22 of the ECA. Section 22 of the ECA requires the submission of reports to assess the impact of a proposed activity on the environment. The court, therefore, held that there was a duty of care required by the accused to submit these reports. This case will be further discussed in relevant provisions and the ECA, below.

Section 31B and 31C provides for the appointment of environmental management inspectors. According to the Department of Environmental Affairs, environmental management inspectors are responsible for ensuring environmental legislation is implemented and carried out.¹⁹⁰ Furthermore, according to the Department, in order to achieve this purpose, the officers carry out the following duties: ‘investigate by inspecting and removing articles, enforce by searching items such as vessels and containers, inspect by ensuring legislation is being followed and administrate by issuing compliance notices’.¹⁹¹ These duties are discussed in further provisions of NEMA, the relevant provisions are pointed out below.

Section 31I deals with the seizure of objects. In terms of section 31I the Minister may require that person who was in possession or authority of that object to take that object to a specific area, if refused the environmental management inspector may acquire the object and take it to the specific area. In the case of the object being a moving object such as a vessel the inspector may remove a part to protect the object and immobilise it. In the case of the object

¹⁸⁶ Jan Glazewski *Environmental Law in South Africa: Second edition* (2005) 150.

¹⁸⁷ *Hichange Investments (Pty) Ltd v Cape Produce Co (Pty) Ltd t/a Pelts Products and Others* 2001 (HC).

¹⁸⁸ *Ibid.*

¹⁸⁹ *Uzani Environmental Advocacy CC v BP Southern Africa (Pty) Ltd* 2019 (5) SA 275 (GP).

¹⁹⁰ Department of Environmental Affairs ‘About Environmental Management Inspectorate (EMI)’ available at <https://www.environment.gov.za/projectsprogrammes/emi/about>, accessed on 14 January 2019.

¹⁹¹ *Ibid.*

being endangered species, which has been exported or re-exported, the individual who had exported that species is required to present relevant documentation such as necessary permits. In the *Bengis* case IUU fishing catch had been exported to the United States.

In terms of section 31J an environmental management inspector may search transport including a vessel if they suspect the factors mentioned in section 31J, including that the form of transport holds any objects or is being used in contravention of the law, in the commission of an offence or is causing degradation of the environment. The inspector may at any time stop any vessel. In terms of section 31K an inspector may investigate any premises or mode of transport including vessels. Section 31L deals with compliance notices given to individuals, by the inspector in accordance with his mandate, who are reasonably believed to not have complied with the law or a condition of a permit. Section 31M deals with individuals who object to this notice and section 31N deals with the consequences of non-compliance with this notice, these include the revocation of permits and the payment of costs due to non-compliance. Compliance notices serves as an administrative tool which assist with environmental enforcement.¹⁹²

Section 33 deals with private prosecution where there is a contravention of a duty and this contravention is in the interest of all citizens or in the interest of preservation of the environment. If such individuals are successfully prosecuted, then they may be convicted and asked to pay the costs of such prosecution and of any appeal. If such person is acquitted or dismissed, they may be granted an order of costs against the person prosecuting where it is found that the person who is privately prosecuting did not do so out of concern of protection of the environment or where the matter was trivial in nature. Section 33 of NEMA was considered in *Uzani Environmental Advocacy CC v BP Southern Africa (Pty) Ltd*.¹⁹³ In this case, Uzani Environmental Advocacy was ruled to have complied with section 33 of NEMA when instituting a private prosecution against BP Southern Africa (Pty) Ltd. This was the first successful prosecution in accordance with section 33 of NEMA.¹⁹⁴

Section 34 of NEMA deals with criminal proceedings. These provisions must be read in accordance with Schedule 3 of the Act. Schedule 3 of the Act contains national legislation and specific provisions of these legislation are stipulated in Schedule 3. These provisions apply

¹⁹² LA Feris 'Compliance Notices – A New Tool in Environmental Enforcement' Vol. 9 No. 3 *P.E.R.*, 55.

¹⁹³ *Uzani Environmental Advocacy CC v BP Southern Africa (Pty) Ltd* 2019 (5) SA 275 (GP).

¹⁹⁴ Centre for Environmental Rights 'Uzani Environmental Advocacy CC v BP Southern Africa (Pty) Ltd' available at <https://cer.org.za/virtual-library/judgments/high-courts/uzani-environmental-advocacy-cc-v-bp-southern-africa-pty-ltd>, accessed on 16 January 2020.

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to section 34 of NEMA and section 34 of NEMA must be read in accordance with these provisions. The MLRA is included in national legislation listed in Schedule 3 and the listed provisions of the MLRA which must be applied to section 34 of NEMA and read accordingly are:

‘Section 58(1) in so far as it relates to contraventions of sections 43(2), 45 and 47, and section 58(2) in so far as it relates to contraventions of international conservation and management measures’.¹⁹⁵

These provisions have been highlighted and discussed in the analysis of the MLRA and are crucial provisions for the deterrence of IUU fishing. Section 58 of the MLRA deals with offences and penalties. Section 58(1) deals with penalties for contravention of any provision of the MLRA and section 58(2) provides penalties for the contravention of a provision of an international conservation and management measure inside or outside South African waters. Section 43(2) deals with MPAs and the protection of these areas including the prohibition unless granted permission of fishing in these areas. Section 45 makes provision for the possession of prohibited gear including any net or trap, the mesh size of which does not conform to the prescribed minimum mesh size. Section 47 deals with driftnet fishing. These include that no vessel shall be used for or to assist in any driftnet fishing activities except on the authority of a permit granted by the Minister.

The relevant provisions of section 34 are: should any individual be convicted of an offence under the provisions of Schedule 3 which has resulted in loss or damage to any other individual or organ of State and this may include the cost incurred or to be incurred by an organ of State in rehabilitating the environment or preventing detrimental effects to the environment. In the same court proceedings the court may order an inquiry summarily and without pleadings into the amount of loss or damage so caused, in the presence of the convicted individual, at the request of the Minister, other organ of State or other individual implicated. If such costs are proved then the court may give judgement in favour of the organ of State or individual concerned. The monetary advantage gained or to be gained by any individual as a result of the offence committed in contravention of the provisions of Schedule 3 may be looked into by the court convicting such individual and in addition to the penalties imposed as a result of the offence committed the court may also order the award of damages equivalent to the monetary advantage gained or about to be gained by the convicted individual and certain remedial

¹⁹⁵ National Environmental Management Act 107 of 1998.

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measures may be taken by the convicted person. The court may also order the payment of costs incurred by the public prosecutor or another organ of State by the person convicted upon application by the public prosecutor or organ of State.

Therefore, the offences in section 43(2), section 45, section 47 and section 58(2) and the penalties imposed for contravention of the provisions of the MLRA in section 58 of the MLRA are subject to section 34 of NEMA. As highlighted in the discussion of the MLRA, fishing in an MPA without authorisation, fishing with prohibited fishing gear, carrying out fishing activities with a driftnet without authorisation and contravening international conservation and management measures such as overfishing above allocated tuna quotas in contravention of the IOTC, CCSBT and the ICCAT amounts to IUU fishing and a contravention of the abovementioned provisions. Such individuals shall face penalties in accordance with section 58. Additional penalties and criminal proceedings are prescribed in section 34 of NEMA and shall be applied should there be a contravention of the aforementioned provisions of the MLRA.

To illustrate the applicability of section 34 to IUU fishing a hypothetical scenario is used, using section 47 of the MLRA. An individual on board a local commercial fishing vessel was found in possession of driftnet fishing gear which was used to fish. While fishing with the driftnets this has caused detrimental effects on the marine environment including fishing in excess of a specific marine species, the catching of by catch species such as turtles and other non-commercial fisheries and the use of these driftnets had also resulted in an impediment of the passage of other vessels. Such individual is convicted in accordance with section 58 for contravention of the provision of the MLRA and faces criminal proceedings in accordance with the MLRA. In addition he also faces criminal proceedings in accordance with section 34 of NEMA due to the aforementioned reasons. This offence has caused loss and damage to an organ of State in rehabilitating the marine environment and in preventing detrimental effects to the marine environment therefore an inquiry into the amount of loss and damage caused may be ordered by the court during criminal proceedings. As the costs are proved, judgement is given in favour of the organ of State and as monetary advantage was to be gained by this individual by catching an excess of fisheries and by-catch species, the court orders the award of damages equivalent to this monetary value and payment of costs incurred on the organ of State as a result of such damage caused. This is in accordance with section 34 of NEMA. Section 34 and Schedule 3 of NEMA is therefore applicable to criminal prosecuting of IUU fishing. Section 34 of NEMA which states that a court may, on conviction, determine and/or

award certain compensation and/or damages to the affected persons in addition to and/or instead of fines, was considered in the case *Uzani Environmental Advocacy CC v BP Southern Africa (Pty) Ltd*.¹⁹⁶

It is clear from the provisions discussed above, that NEMA provides a comprehensive framework to achieve the goals of the Act as highlighted above, including the protection of the environment. It is noteworthy to consider some of the definitions according to NEMA to establish if the Act is relevant to marine resources. The definitions of ecosystem and environment in terms of the Act was pointed out above. Ecosystem means any community of organisms and the surrounding conditions which influence them. A ‘community of organisms’ is also a biological community where ‘a group of various species interact in a common location’. Therefore, it can be concluded that this definition extends to include marine species.¹⁹⁷ The definition of environment include surroundings of water and plant and animal life. These definitions therefore indicate NEMA extends to the marine environment. In section 2, reference is made to ‘coastal shores’ and ‘similar systems,’ which, furthermore, highlights that NEMA extends to the marine environment and is therefore is relevant to IUU fishing. Coastal shores are referred to as vulnerable ecosystems and these vulnerable ecosystems must be considered as factors in ensuring sustainable development. Vulnerable ecosystems require protection and therefore, include species which are endangered such as marine species subject to low fishing quotas including the West Coast Rock Lobster which has been subject to IUU fishing in the *Bengis* case. According to Kidd, the only specific environmental concern contained in NEMAs principles is ecosystems including vulnerable ecosystems.¹⁹⁸

As the MLRA is the primary piece of legislation governing marine species, it is also noteworthy to mention that, when the provisions of NEMA are read in conjunction with the MLRA's provisions, it is clear that they are related. According to Hauck, the principles of NEMA have generally been incorporated into South Africa's fisheries and coastal policies.¹⁹⁹ According to Glazewski the objectives and principles of the MLRA which form the foundation of the MLRA are related to NEMAs principles ‘in that they have been fashioned to deal specifically with the exigencies of fisheries management in South Africa’.²⁰⁰ Glazewski further

¹⁹⁶ *Uzani Environmental Advocacy CC v BP Southern Africa (Pty) Ltd* 2019 (5) SA 275 (GP).

¹⁹⁷ ENCYCLOPÆDIA BRITANNICA ‘Community’ available at <https://www.britannica.com/science/community-biology>, accessed on 10 January 2019.

¹⁹⁸ Michael Kidd *Environmental Law* (2011) 136.

¹⁹⁹ Maria Hauck and Merie Sowman *Waves of Change: Coastal and Fisheries Co-management in Southern Africa* (2003) 50.

²⁰⁰ Jan Glazewski *Environmental Law in South Africa: Second edition* (2005) 139.

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states that it is important to note that these principles only apply to the Republic of South Africa, for example it does not apply outside of South Africa's EEZ.²⁰¹

In accordance with the case law discussed in section 2 of NEMA above, the principles in section 2 of NEMA must be used as a guideline when interpreting any law concerning the conservation and protection of the environment. One of the objectives of the MLRA is the conservation and protection of marine resources. Therefore, this is a further point which indicates the two Acts are related. This is, furthermore, relevant to IUU fishing as IUU fishing threatens conservation and protection of the environment and the MLRA's provisions are primarily related to marine resources and IUU fishing. *WWF South Africa v Minister of Agriculture, Forestry and Fisheries and Others*,²⁰² had recognised that the objectives contained in the MLRA are consistent with NEMA and the Constitution and in some part overlap with NEMA and the Constitution.²⁰³ Section 2(2) states '...place people and their needs at the forefront of its concern...', whilst the MLRA and the MLRA amendment Act considers previously disadvantaged individuals and the need to permit new entrants when granting fishing rights. This further points out the significance and relation between the both Acts.

Environmental management plans are relative to marine conservation and protection as these plans cover several environmental issues within the area in question and propose solutions to deal with these issues. Issues include threats to that area's environment such as those discussed in the example, above, in the Aganang environmental management plan. One of the identified threats to that environment was illegal fishing and one of the solutions proposed was environmental monitoring. Therefore, environmental management plans in terms of NEMA play a role in deterrence of IUU fishing.

The 'duty of care and remediation of environmental damage' provision in NEMA, stated above, applies to those who cause significant environmental degradation must take steps to remediate such degradation. There has not been a case which has dealt with this provision and IUU fishing, however, it may be concluded that IUU fishing is linked to this provision. Environmental degradation is defined as 'the deterioration of the environment through exhaustion of natural assets'.²⁰⁴ In accordance with the discussion of this provision, above, Glazewski points out the degradation must be 'significant' and furthermore, according to case

²⁰¹ *Ibid.*

²⁰² *WWF South Africa v Minister of Agriculture, Forestry and Fisheries and Others* 2018 SA 889 (WCHC).

²⁰³ Jan Glazewski *Environmental Law in South Africa: Second edition* (2005) 139.

²⁰⁴ World Atlas 'What Is Environmental Degradation?' available at <https://www.worldatlas.com/articles/what-is-environmental-degradation.htm>, accessed on 17 January 2020.

law discussed, the Constitution right to an environment instrumental to the health and well-being of individuals must be considered when determining ‘significant’ degradation. The environmental repercussions of IUU fishing was pointed out in chapter one. The detrimental effects which may be caused by IUU fishing include habitat destruction and threatened sustainable development. Habitat destruction and threatened sustainable development in turn also effects the long-term well-being of individuals. Therefore, it may be concluded that IUU fishing causes significant degradation of the environment and this provision may be linked to the deterrence of IUU fishing.

NEMA provides for environmental management inspectors who are responsible for carrying out duties, discussed above, including compliance and enforcement duties. The MLRA provides for compliance and enforcement by designating fishery control officers who also carry out similar duties to environmental management inspectors such as inspection of activities on vessels, highlighted above. Several officials of the marine and coastal management department have been designated as environmental management inspectors. These officials are therefore both fishery control officers in terms of the MLRA and environmental management inspectors in terms of NEMA.²⁰⁵ Environmental management inspectors also carry out duties on vessels according to NEMA. This further point out that environmental management inspectors are also fishery control officers whose duties contribute to fishery and fleet management and MCS of vessels and therefore deterrence of IUU fishing. In light of section 33 of NEMA and the case *Uzani Environmental Advocacy CC v BP Southern Africa (Pty) Ltd*,²⁰⁶ private prosecutions by interested individuals may be executed for IUU fishing activities. For instance, should fish processing establishments engage in IUU fishing such as Hout Bay Fishing Industries in the *Bengis* case, then interested individuals may execute private prosecutions.

Section 34 of NEMA prescribes criminal proceedings which must be followed should there be a contravention of section 43(2), section 45, section 47 and section 58(2) of the MLRA. This further depicts the relation between the MLRA and NEMA. These provisions of the MLRA may result in IUU fishing should they be contravened as discussed above. Therefore, in addition to the penalties faced in accordance with section 58 of the MLRA further penalties are prescribed in section 34 of NEMA during criminal proceedings including the payment of

²⁰⁵ Alexander Paterson and Louis J Kotze *Environmental Compliance and Enforcement in South Africa: Legal Perspectives* (2008) 77.

²⁰⁶ *Uzani Environmental Advocacy CC v BP Southern Africa (Pty) Ltd* 2019 (5) SA 275 (GP).

costs for damages caused as a result of the contravention of these provisions of the MLRA. It is noteworthy to mention that NEMA also recognises section 58(2) of the MLRA, the contraventions of international conservation and management measures in section 34 of NEMA, the criminal proceedings. International conservation and management measures were discussed in chapter two. The measures imposed by the international framework applicable to South Africa is crucial to the deterrence of IUU fishing. This therefore also further depicts that NEMA and the criminal proceedings prescribed is applicable to IUU fishing in accordance with the MLRA's provisions in Schedule 3 of NEMA and this is crucial to the deterrence of IUU fishing.

According to Kidd, NEMA 'is one of the many South African environmental laws which on paper, are excellent laws'.²⁰⁷ From the above provisions and analysis, it can be concluded that despite the MLRA being the primary piece of legislation governing fishing activities and marine species in South Africa, NEMA's provisions including the criminal proceedings prescribed plays a crucial role in the deterrence of IUU fishing. However, the enactment and implementation of these provisions is crucial for NEMA to be effective in its capacity.

(d) The Environment Conservation Act (ECA)

The Environment Conservation Act (ECA)²⁰⁸ addresses sustainable utilisation and is aimed to ensure protection of the environment in South Africa and also applies to the Prince Edward Islands. According to DAFF, the legislation which has been in force before the ECA had largely disregarded the effects of activities on the environment and the natural coastal processes. Therefore, the ECA was put into effect to address these issues.²⁰⁹ Furthermore, according to Kidd, although the title of the ECA suggests that it provides an extensive framework for all aspects of the environment, the Act only addressed certain aspects of the environment.²¹⁰ Therefore, the Act has been repealed in part by NEMA as a framework was needed which addresses all aspects of the environment.²¹¹ However, many provisions still

²⁰⁷ Michael Kidd *Environmental Law* (2011) 44.

²⁰⁸ Environment Conservation Act 73 of 1989.

²⁰⁹ Department of Environmental Affairs and Tourism 'Marine and Coastal Management' available at https://www.environment.gov.za/sites/default/files/docs/15yearreview_marine_coast.pdf, accessed on 2 September 2019.

²¹⁰ Michael Kidd *Environmental Law* (2011) 35.

²¹¹ *Ibid.*

remain in force and may be relevant to IUU fishing. The analysis of the ECA is provided below, in a similar manner to NEMAs analysis.

It is noteworthy to mention the definition of ‘ecosystem’ and ‘environment’ in accordance with the Act to determine the ECAs relation to marine resources:

‘Ecosystem means any self-sustaining and self-regulating community of organisms and the interaction between such organisms with one another and with their environment and environment means the aggregate of surrounding objects, conditions and influences that influence the life and habits of man or any other organism or collection of organisms’.²¹²

‘Environment is defined as a means the aggregate of surrounding objects, conditions and influences that influence the life and habits of man or any other organism or collection of organisms’.²¹³

One of the important factors that the Act dealt with, is the identification and prohibition of activities which has a detrimental effect on the environment which was provided for in part V of the Act, containing sections 21-23. In terms of section 21 one of the activities which may be identified by the Minister as having a substantial detrimental effect on the environment is the removal of resources including natural living resources.²¹⁴ This provision along with the rest of part V of the Act has been repealed, however it is noteworthy to mention as it was a provision of upmost significance to the conservation of the environment including the marine environment and deterrence of IUU fishing. Furthermore, Glazewski has stated that part V of the ECA arguably contains the most important provisions of the ECA.²¹⁵

In terms of section 22, no individual may partake in any activity as identified in section 21 unless given written authorisation by the Minister or an authority after consideration of that proposed activity and its effect on the environment.²¹⁶ Furthermore, the authorisation may only be issued after considering reports dealing with the impact of the proposed activity on the environment. In accordance with the 2019 case *Uzani Environmental Advocacy CC v BP Southern Africa (Pty) Ltd*,²¹⁷ the principles of section 21 and section 22 were applied and recognised by the court. BP had contravened section 22 read in accordance with section 21 of

²¹² Environment Conservation Act 73 of 1989.

²¹³ *Ibid.*

²¹⁴ *Ibid.*

²¹⁵ Jan Glazewski *Environmental Law in South Africa: Second edition* (2005) 159.

²¹⁶ Environment Conservation Act 73 of 1989.

²¹⁷ *Uzani Environmental Advocacy CC v BP Southern Africa (Pty) Ltd* 2019 (5) SA 275 (GP).

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the ECA as they had ‘wrongfully and unlawfully undertook or caused to be undertaken an activity identified as one which may have a substantial detrimental effect on the environment to with the construction and/or upgrading of the filling service stations without written authorisation’.²¹⁸ Furthermore, as discussed, when considering section 28 of NEMA, the court ruled that there was a duty on BP to submit reports in accordance with section 22 of the ECA.²¹⁹ Section 21 and section 22 of the ECA has been repealed by section 50(2) of NEMA, a provision which will be put into operation by proclamation.²²⁰

Section 29 deals with offences and penalties as a result of disobeying provisions of the Act. Should an individual be convicted in terms of the Act, as a result of the detrimental effect that they have caused on the environment, then they may be ordered to repair the environment to its normal state, to the discretion of the relevant authority. If this order is not complied with then the relevant authority may proceed to perform the same reparations of the environment and recover the money of doing so from convicted individual/s.

In terms of section 31A if the relevant authority is under the belief that an individual or individuals are performing activities or not performing activities which results in the consequence of the environment being subjected to detrimental effects, then such authority may order such individual or individuals to stop such activity or to take any steps in this regard as deemed reasonable. The relevant authority may order such individual to perform an activity at their expense if such performance will rehabilitate any detrimental effects ‘caused to the environment as a result of the activity or failure referred to as above’.²²¹

According to Glazewski, in accordance with the definition of environment in terms of the ECA, section 31A ‘encompasses the degradation of all environmental resources’.²²² Section 34 of the ECA is not related to IUU fishing, however for the purposes of understanding the following case which also deals with section 31A of the ECA, section 34 is stated here. Section 34 deals with compensation for loss. If limitations are placed on activities that may take place on land or the purpose for which that land may be used, then the owner or holder of a right to that land may recover compensation from the relevant Minister or administrator. In *The*

²¹⁸ *Ibid* 2.

²¹⁹ *Ibid* 12.

²²⁰ Food Focus ‘Environment Conservation Act’ available at <https://www.foodfocus.co.za/assets/documents/Environment%20Conservation%20Act.pdf>, accessed on 20 July 2020.

²²¹ Environment Conservation Act 73 of 1989.

²²² Jan Glazewski *Environmental Law in South Africa: Second edition* (2005) 161.

Minister of Water and Environmental Affairs v Really Useful Investments,²²³ the respondent had acted in terms of section 31A of the ECA. According to this case ‘Really Useful Investments’ had developed properties and proceeded to dump waste matter to increase the height of the lower lying properties by up to 4 meters above sea level adjacent to the Disa River. The City of Cape Town, the second respondent had then exercised its discretion in terms of section 31A of the ECA and had issued directives accordingly.²²⁴ The City was concerned due to pollution, flooding and soil contamination which may occur in the Disa River due to this activity.²²⁵ Whilst the City has taken regulatory action in terms of section 31A, the City had contended that this gave rise to a claim for compensation in accordance with section 34 of the ECA.²²⁶ The court held that issuing directives in terms of section 31A does not fall within the purview of section 34.²²⁷

From the above provisions stated, these provisions are in some instances similar to NEMAs provisions. The definition of ‘environment’ and ‘ecosystem’ in the ECA are similar to those definitions in NEMA therefore it can be concluded that the ECA also applies to marine living resources and therefore is related to the MLRA. Although repealed it is evident that section 21 and section 22 are of significance and the provisions are still applied to cases such as *Uzani Environmental Advocacy CC v BP Southern Africa (Pty) Ltd*²²⁸, discussed above. Section 21 identifies activities that have a detrimental effect on the environment including the removal of natural resources. This provision is applicable to the deterrence of IUU fishing as IUU fishing has detrimental effects on the environment, highlighted in chapter one. The removal of marine living resources from the ocean illegally including fishing excessive quantities without authorisation amounts to IUU fishing and furthermore, causes a detrimental effect on the environment as habitats, ecosystems and biodiversity of the ocean is affected as IUU fishing activities take place with no regard for allocated quotas or the risk of depletion of endangered ocean species. The written authorisation in accordance with section 22 goes hand in hand with section 21. In accordance with the MLRA several activities are prohibited unless authorised, for instance fishing rights in accordance with section 18 of the MLRA, including the right to commercial fishing. It can be said that this is similar to section 22, unless authorised to remove these resources from the marine environment under regulations then the removal of

²²³ *The Minister of Water and Environmental Affairs v Really Useful Investments* 2018 (1) SA 156 (SCA).

²²⁴ *Ibid* 2.

²²⁵ *Ibid* 21.

²²⁶ *Ibid* 24.

²²⁷ *Ibid*.

²²⁸ *Uzani Environmental Advocacy CC v BP Southern Africa (Pty) Ltd* 2019 (5) SA 275 (GP).

these resources will amount to contravention of section 21. Therefore, although repealed these provisions are of great significance especially for the deterrence of IUU fishing.

According to Kidd section 31A and section 28 of NEMA are relatable.²²⁹ Section 28 of NEMA dealt with 'duty of care and remediation of environmental damage'.²³⁰ Both provisions are aimed at the same situation except section 31A applies to serious damage of the environment while NEMAs provision is aimed at wider circumstances as the provision refers to significant degradation. Furthermore, both provisions call for authorities to intervene, section 31A of the ECA exercise in this regard is seen as far simpler than NEMAs in section 28. Kidd further states that another advantage of section 31A in comparison to section 28 of NEMA is that section 31A permits more officials to exercise duties accordingly as powers may be delegated.²³¹ Therefore, it is easier to use section 31A than section 28 of NEMA. Section 31A, according to Glazewski, as stated above 'encompasses the degradation of all environmental resources'.²³² Therefore, it may be said that this provision extends to marine living resources.

A further provision of the ECA which is relatable to section 28 of NEMA is section 29 of the ECA. In accordance with section 28 of NEMA, individuals who cause significant environmental degradation must take steps to remedy such degradation. Section 29 of the ECA states a similar provision, an individual convicted as a result of the detrimental effect caused on the environment may be ordered to repair the environment to its normal state. However, it must be acknowledged that section 29 of the ECA expressly refers to offences and penalties and the individual 'may' be ordered to repair the environment. Whereas section 28 of NEMA does not fall under offences and penalties and such individuals 'must' take steps to remedy effects in those circumstances. Furthermore, although there is no case law which has dealt with this specific circumstance, section 29 of the ECA may relate to IUU fishing, should individuals be convicted as a result of a contravention of section 21 of the ECA then section 29 may be applicable in these circumstances.

The ECA, although repealed in part by NEMA it is clear from the provisions discussed that the ECA is still relevant and relatable to marine living resources and the deterrence of IUU fishing. An overall flaw that was found of the ECA is that the Act has significantly influenced

²²⁹ Michael Kidd *Environmental Law* (2011).

²³⁰ *Ibid.*

²³¹ *Ibid.*

²³² Jan Glazewski *Environmental Law in South Africa: Second edition* (2005) 161.

the restriction of detrimental effects on the environment however, it was narrow in its approach and still has not addressed the problem of access.²³³ There was a need for integrated coastal management as endorsed by Agenda 21. The Integrated Coastal Management Act (ICM) was hereafter enacted in 2008.²³⁴

(e) Integrated Coastal Management Act (ICM)

The ICM,²³⁵ aims to ensure coastal management for the purpose of conservation of the coastal environment and sustainable use of natural resources of the coast. The Act applies to coastal waters of South Africa and Prince Edward Islands. Coastal waters in accordance with the Act extends to internal waters, territorial waters, EEZ and continental shelf of South Africa. According to Strydom, the Act has been designed to fit together with the MLRA and NEMA, reduce the overlaps amongst these statutes and furthermore, increase organisation.²³⁶ Relevant provisions will be analysed below in a similar manner to the ECAs analysis.

Section 16 of the Act deals with the institution of coastal protection zones. These zones are instituted for areas as identified in the ECA, which comprises of activities as identified in accordance with section 21 of the ECA. These include, as discussed above, the removal of resources including natural resources. In terms of section 17 the coastal protection zone is implemented for the purpose, *inter alia*, the management, protection and restriction of significant coastal ecosystems. According to Malan and Sowman, coastal protection zones are established for the purpose of protection and improvement of the status of coastal public property.²³⁷ Section 21 provides for the control and management of coastal waters by an organ of State which must be in accordance with the communities' interests as well as South Africa's commitments in accordance with international law. In terms of section 23 an area may be a special management area if environmental or social and economic conditions require measures to 'conserve, protect or enhance coastal ecosystems and biodiversity in the area'.²³⁸ According

²³³ Department of Environmental Affairs and Tourism 'Marine and Coastal Management' available at https://www.environment.gov.za/sites/default/files/docs/15yearreview_marine_coast.pdf, accessed on 2 September 2019.

²³⁴ *Ibid.*

²³⁵ Integrated Coastal Management Act 24 of 2008.

²³⁶ Hendrik Andries Strydom, ND King, RF Fuggle, Marinus Andre Rabie *Environmental Management in South Africa* (2009) 898.

²³⁷ M Sowman and N Malan 'Review of progress with integrated coastal management in South Africa since the advent of democracy' (2018) *African Journal of Marine Science*, 124.

²³⁸ Integrated Coastal Management Act 24 of 2008.

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to Malan and Sowman special management areas are areas requiring alternative management approaches for example in local coastal area's management by the local community.²³⁹

Section 35 provides for the establishment and functions of the national coastal committee which promotes integrated coastal management as well as the implementation of environmental management plans, policies and programs for activities which may have a negative effect on the coastal environment. However, Malan and Sowman have stated that there is urgency for the establishment of a national coastal committee with 'broad representation, revitalisation of public interest in the coast, declaration of coastal public property and coastal access land, improved cooperation across relevant government agencies, allocation of funds for ICM, and greater commitment to a more deliberative and collaborative style of governance'.²⁴⁰

Section 45 deals with the establishment of coastal management programs and the content of these programs including the sustainable utilisation of coastal resources. An example of a coastal management program is the Western Cape Provincial Coastal Management Program (PCMP).²⁴¹ One of the priority areas which was established for coastal management was 'natural and cultural resource management'.²⁴² This priority area has further established the following goal: 'ecosystem goods and services and cultural assets are sustainment as the basis for coastal economic development and livelihoods'.²⁴³ Section 58 deals with the need to ensure negative effects on the coastal environment are avoided. This provision is read in accordance with section 28 of NEMA. According to section 28 of NEMA, environment for the purposes of the Act must include the coastal environment. Furthermore, the rest of the section 28 provision of NEMA is similar to section 59 of ICM which states, if the MEC or Minister reasonably suspects that an individual is engaging in activities that have a negative effect on the coastal environment then they must issue a notice prohibiting such activity and other appropriate instructions to that individual such as stop or postpone such activity and take steps in accordance with the ICM or any appropriate Act to protect the coastal environment.

²³⁹ M Sowman and N Malan 'Review of progress with integrated coastal management in South Africa since the advent of democracy' (2018) *African Journal of Marine Science*, 124.

²⁴⁰ *Ibid.* at 1.

²⁴¹ Western Cape Government 'Provincial Coastal Management Programme: Annual Implementation Report 2017/18' available at https://www.westerncape.gov.za/eadp/files/atoms/files/WC%20PCMP_Ann_Impl_Plan_2017_18_Final%2026%20March%202018.pdf, accessed on 10 January 2020.

²⁴² *Ibid.*

²⁴³ *Ibid.*

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The ICM applies to the coastal waters of South Africa, stated above, therefore the Act applies in South Africa's maritime zones and to the marine environment. In accordance with the ECA analysis section 21 of the ECA may be related to IUU fishing as IUU fishing has a detrimental effect on the environment and marine resources are removed from the environment during the commission of IUU fishing. ICMs coastal protection zones are instituted in area's established in accordance with section 21 of the ECA Therefore, coastal protection zones may be established in areas of the coast where ecosystems are susceptible to IUU fishing. Furthermore, coastal protection zones are established for the purpose of management, protection and restriction of significant coastal ecosystems. Therefore, if coastal protection zones are established in these areas, then this will contribute to the deterrence of IUU fishing as these ecosystems will be protected. However, currently, Cape Town and Durban has only made progress in establishing coastal protection zones.²⁴⁴ Coastal protection zones have not been implemented in most provinces and municipalities in South Africa.²⁴⁵ According to Malan and Sowman, this is due to a lack of transparency on the approach to follow, monetary issues and no examples to follow for establishment.²⁴⁶

Section 21 calls for the protection and management of coastal waters. Deterrence of IUU fishing calls for, *inter alia*, the conservation, management and protection of marine living resources. Coastal waters include marine living resources; therefore, this provision may be relevant in this regard. In accordance with section 23, above, economic conditions which call for the conservation of marine ecosystems are considered when establishing special management areas. Therefore, it may be said in areas where there is a great amount of IUU fishing activities which causes economic repercussions, special management areas may be established in this area. However, special management areas have not been established at all in accordance with this provision in South Africa.²⁴⁷ The national coastal committee may establish environmental management plans for activities which have a negative effect on the environment. Section 58 also deals with negative effects on the coastal environment and states that these effects must be avoided. In this regard, IUU fishing has a negative effect on the environment therefore, these provisions may be applicable.

²⁴⁴ M Sowman and N Malan 'Review of progress with integrated coastal management in South Africa since the advent of democracy' (2018) *African Journal of Marine Science*, 127.

²⁴⁵ *Ibid.*

²⁴⁶ *Ibid.*

²⁴⁷ *Ibid.*

The ICM proclaims the application of section 28 of NEMA, the ‘duty of care and remediation of environmental damage’ provision to expand to the coastal environment in accordance with section 59. This is a further provision which deals with negative effects on the coastal environment and furthermore, prescribes regulations such as NEMAs section 28 regulations, should an individual carry out activities which cause a negative effect on the coastal environment. Activities which cause a negative effect on the coastal environment may include IUU fishing, therefore this provision may be relevant. In accordance with the coastal management program provision, one of the areas dealt with in the PCMP was natural resource management and the sustainment of natural resources. Therefore, one of the aspects of these programs is managing and ensuring sustainability of natural resources including marine living resources. As previously stated, the management and sustainability of marine living resources is crucial for the deterrence of IUU fishing. Therefore, these programs are relevant for deterrence of IUU fishing. Malan and Sowman state that coastal management programs are a ‘progressive provision’.²⁴⁸

Currently there are no cases or circumstances which have dealt with IUU fishing and the provisions of the ICM, however in accordance with the analysis above the ICM may play a crucial role in the deterrence of IUU fishing. There are, however, presently several factors which must be dealt with to ensure the ICM is progressive. Malan and Sowman state that the challenges interfere with the progression of the Act include, *inter alia*, lack of resources and capacity to implement the ICM, lack of cooperative and collaborative governance, coordination and integration, lack of political will and conflicting policy frameworks such as Operation Phakisa, discussed below.²⁴⁹ A further challenge, identified by Goble, is a lack of knowledge on coastal management among officials.²⁵⁰

(f) The Biodiversity Act

The Biodiversity Act,²⁵¹ is primarily aimed at implementing the Convention on Biological Diversity in South Africa and implementing other conventions including international

²⁴⁸ *Ibid.*

²⁴⁹ M Sowman and N Malan ‘Review of progress with integrated coastal management in South Africa since the advent of democracy’ (2018) *African Journal of Marine Science*, 133.

²⁵⁰ Bronwyn J Goble, Trevor R Hill and Michael R Phillips ‘An Assessment of Integrated Coastal Management Governance and Implementation Using the DPSIR Framework’ (2017) *Coastal Management* Vol. 45 No. 2 2017 *Taylor & Francis online*.

²⁵¹ National Environmental Management: Biodiversity Act 10 of 2004.

conventions. The Act is read in accordance with the framework of NEMA and aims to protect South Africa's biodiversity by providing measures for the management, sustainable use and conservation of South Africa's species, resources and ecosystems. Furthermore, the objectives of the Act contained in section 2, recognises the need for international ratified agreements related to biodiversity to be complied with, to encourage cooperative governance and develop a National Biodiversity Institute. These international ratified agreements include CITES, discussed in the previous chapter. In terms of section 4, the Act is applicable to South Africa's biodiversity, including, within Prince Edward Islands and South Africa's maritime zones. Relevant provisions are analysed below.

Section 10 establishes the South African National Biodiversity Institute (SANBI).²⁵² The role that the institution plays are set out in section 11. The institution monitors the current state of biodiversity and the status on all species that are subject to endangerment and require protection in South Africa. The institution also tackles and encourages research on native biodiversity and the sustainable use thereof, may set up, conserve and safeguard collections of species in suitable enclosures, may set up programs for 'the rehabilitation of ecosystems, the conservation and sustainable use of indigenous biological resources'.²⁵³ The institution also assists the Minister and advises on his request on aspects such as 'development in national protected areas, the management of biological diversity and the sustainable use of biological resources'.²⁵⁴ According to Kidd SANBI plays an important role in helping achieve the objectives of the Act and the operation of the Act.²⁵⁵

In terms of section 38, a national biodiversity framework program must be acquired. The framework, in terms of section 39, must be in accordance with the Act, NEMA and international frameworks and agreements which are applicable. The framework must recognise conservation zones which are of prime concern and the formation of protected areas as well as encourage regional cooperation in the management of biodiversity within Southern Africa. In accordance with the revised national biodiversity framework for 2017-2022, a two-step approach is followed:

'Firstly, providing an overview of key national strategies, frameworks and systems that guide the work of the biodiversity sector, and indicating their relevance to the strategic

²⁵² *Ibid.*

²⁵³ *Ibid.*

²⁵⁴ *Ibid.*

²⁵⁵ Michael Kidd *Environmental Law* (2011) 104.

objectives, outcomes and priority activities of the national biodiversity strategy and action plan. Secondly, identifying a set of interventions that can be used to accelerate implementation of high-level priorities of the national biodiversity strategy and action plan over the next five years'.²⁵⁶

Section 43 permits any individual, organisation or organ of State which desires to play a part in biodiversity management may compose a management plan. This plan may entail a draft regarding a specific ecosystem, or which is listed in section 52 or a species as listed in section 56 'but which does warrant special conservation attention'.²⁵⁷ In terms of section 52 'the Minister or MEC may, by notice, publish a national list of ecosystems that are threatened and in need of protection'.²⁵⁸ Section 56 deals with a 'list of species that are threatened or in need of national protection'.²⁵⁹ In terms of section 45 the biodiversity management plans, from section 43, must be directed at continuous survival of species or ecosystems. A shark biodiversity management plan was published in 2015 and has recognised that 47 of 185 species of cartilaginous fish are threatened.²⁶⁰ The plan, furthermore, considered the shark MOU under CMS, discussed in the previous chapter, which was signed by South Africa and that IUU fishing, *inter alia*, is a threat to the morality of sharks.²⁶¹ The plan entailed mechanisms for the conservation of resident and migratory sharks in South Africa. These mechanisms included objectives and the implementation of actions to meet conservation aims. These include the building up the political will to implement shark conservation measures, reconcile shark species and conservation interests and adding to global shark conservation attempts in the areas of 'research, monitoring, data collection and analysis, threat definition and reduction, habitat identification and protection; education and public awareness; information exchange and capacity building'.²⁶² The plan considered environmental legislation, namely NEMA, the MLRA and ICM.

Section 49 directs a duty on the Minister to implement monitoring mechanisms for South Africa's biodiversity. Furthermore, the Minister must encourage research by the institute and other institutions regarding conservation and protection of South Africa's biodiversity as

²⁵⁶ Centre for Environmental Rights 'Government Notices' available at <https://cer.org.za/wp-content/uploads/2018/10/Draft-National-Biodiversity-Framework.pdf>, accessed on 20 January 2020.

²⁵⁷ National Environmental Management: Biodiversity Act 10 of 2004.

²⁵⁸ *Ibid.*

²⁵⁹ *Ibid.*

²⁶⁰ Department of Environmental Affairs 'Shark Biodiversity Management Plan' available at https://www.environment.gov.za/sites/default/files/gazetted_notices/nemba10of2004_sharksbiodiversitymanagementplan_0.pdf, accessed on 22 December 2019.

²⁶¹ *Ibid.*

²⁶² *Ibid.*

well as threatening processes on South Africa's biodiversity. In terms of section 53 the Minister may recognise any venture in a listed ecosystem as a threatening activity. In accordance with section 57 specimens of listed threatened species must be regulated and in terms of section 59 the Minister must monitor the trade in listed threatened specimens. This provision gives effect to CITES and to ensure sustainable utilisation of biodiversity. A list of endangered marine species and restricted and prohibited activities on these species in accordance with the Biodiversity Act was published in the regulations in the Gazette in 2017.²⁶³ These include the Saw fish species and it was stipulated that, *inter alia*, these species are prohibited from being caught, hunted, having in possession or exercising control over these species, being exported and imported into the Republic.²⁶⁴ Several other marine species were listed including the Natal Shyshark and the Omate Sleeper Ray.²⁶⁵

A significant threat to biodiversity, as previously emphasised, is IUU fishing. The Act aims to protect South Africa's biodiversity including biodiversity in South Africa's maritime zones. The Act recognises that international ratified agreements such as CITES and CMS be complied with. The conventions and its relation to IUU fishing was discussed in the previous chapter. Therefore, the Act encourages cooperation amongst international ratified biodiversity agreements. A list of activities is provided for under the SANBI provision. It must be emphasised that, *inter alia*, SANBI monitors the current state of biodiversity and encourages conservation of species. The national biodiversity framework program also refers to conservation and protection of biodiversity. The provision provides for the recognition of coastal zones and protection and formation of protected areas requiring protection of biodiversity. Along with the list of activities in the provision establishing SANBI and the provision pertaining to national biodiversity framework program, these provisions therefore play a role in the deterrence of IUU fishing. Conservation and protection measures for biodiversity and ecosystems, as emphasised earlier, is crucial to ensure marine living resources are not subject to IUU fishing.

In accordance with biodiversity management plans, these plans extend to marine living species such as sharks, therefore marine species are attempted to be protected with these plans. However, there are threats present which hinder the success of the shark biodiversity management plan, these include: fishing including by catch species and overfishing,

²⁶³ GN 623 of GG 40875, 30/05/2017.

²⁶⁴ *Ibid.*

²⁶⁵ *Ibid.*

anthropogenic impacts such as diving with sharks and viewing of sharks from cages, insufficient data and uncoordinated research and monitoring and the lack of coordinated legislative framework and governance. According to Kidd planning is a crucial aspect for efficient biodiversity conservation.²⁶⁶ Planning, including biodiversity management plans, in accordance with the Act is well considered ‘at least in theory’ a factor to be concerned about is ‘how well it will work out in practice’.²⁶⁷

The list of threatened species established by the Act extends to marine species, discussed above. The prohibition of activities extends to the catching of these threatened species. Therefore, this is a measure for the protection of these species and a further measure to prevent these species from being subject to the IUU fishing catch. A crucial effect of IUU fishing, as emphasised is a decline in biodiversity. It can be said that the Act is relative to the deterrence of IUU fishing in accordance with the provisions discussed above. However, in accordance with the discussion of these provisions the application of these provisions must be addressed.

3.4 The Department of Agriculture, Forestry and Fisheries (DAFF)

DAFFs mission is ‘advancing food security and transformation of the sector through innovative, inclusive and sustainable policies, legislation and programs’.²⁶⁸ DAFF came into existence in 2010 during macro-reorganisation of national government where the fisheries management mandate moved from what was previously known as the Department of Environmental Affairs and Tourism (DEAT) to DAFF.²⁶⁹ Ever since, from previously annual and medium-term fishing rights, long term fishing rights have been allocated for periods between eight to fifteen years after consideration of factors such as the applicant’s credentials, the fight against poverty, job opportunities and effects on the marine environment and ecosystems.²⁷⁰ In South Africa there are 22 commercial fisheries which are recognised.²⁷¹

²⁶⁶ Michael Kidd *Environmental Law* (2011) 105.

²⁶⁷ *Ibid.*

²⁶⁸ DAFF ‘Vision’ available at <https://www.daff.gov.za/daffweb3/About-Us/Vision-and-Mission>, accessed on 22 May 2019.

²⁶⁹ Department of Environmental Affairs ‘Oceans and Coasts’ available at https://www.environment.gov.za/sites/default/files/reports/environmentoutlook_chapter9.pdf, accessed on 25 May 2019.

²⁷⁰ Department of Environmental Affairs ‘Long-term rights in South African waters, have been issued in 22 fishing sectors to over 2,900 right holders and to 1,788 vessels (WWF 2011)’.

²⁷¹ *Ibid.*

DAFF has commented that whilst South Africa's marine species are well managed, due to many years of overfishing and IUU fishing stocks are affected today and some species are recognised as collapsed whilst some as over exploited.²⁷² DAFF consists of a fisheries management branch which deals with and include the following: international relations and obligations, financial management for the MLRF, fisheries research and development, fisheries allocation process, capacity building and training, marine resources management, small-scale fisheries, MCS, stakeholder engagement and the office of the Deputy Director General (DDG).

DAFF's fisheries management branch deals with the following aspects. International relations and obligations, which deals with the controlling of policy research and discussion with stakeholders on the composition of South Africa's standing on fisheries in accordance with significant bilateral and multilateral forums and partnerships.²⁷³ Financial management, is aimed at ensuring efficient financial management services by building and implementing monetary management practices and enable's well organised and efficacious payment of distributors to the MLRF.²⁷⁴ Fisheries research and development, is aimed at encouraging sustainable use of fisheries, ecosystems and promotion of fisheries research. Capacity building and training aims to promote and ensure high standards of fisheries research, ensure capacity building and training initiatives are reinforced as well as supported by South Africa now and in the future.²⁷⁵ Fisheries allocation process deals with the allocation, verification and management of fishing rights.²⁷⁶ Marine resources management uses management methods and regulation which aims to ensure effective marine fisheries management and sustainable utilisation of marine fisheries as well as equality in accessibility to marine resources.²⁷⁷ Within small-scale fisheries the MLRA provisions are administered and the sector is encouraged to be managed.²⁷⁸ MCS encourages MCS compliance by involving other government departments

²⁷² *Ibid.*

²⁷³ DAFF 'International Relations and Obligations' available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/International-Relations-and-Obligations>, accessed on 17 September 2019.

²⁷⁴ DAFF 'Financial Management (MLRF)' available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Financial-Management-MLRF>, accessed on 19 September 2019.

²⁷⁵ DAFF 'Fisheries research and development' available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Fisheries-Research-and-Development>, accessed on 17 September 2019.

²⁷⁶ DAFF 'Fisheries Allocation Process (FRAP)' available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/-Fishing-Rights-Allocation-Process-FRAP-/Fishing-Performance-Review>, accessed on 15 September 2019.

²⁷⁷ DAFF 'Marine Resources Management' available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Marine-Resource-Management>, accessed on 28 August 2019

²⁷⁸ DAFF available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Small-Scale-Fishing>, accessed on 12 September 2019.

and law enforcement agencies as South African waters are large with limited MCS mechanisms.²⁷⁹ Stakeholder engagement aims to promote and increase the stature of DAFF by hearing out different stakeholders, dealing with these comments in a balanced manner and communicating with all stakeholders.²⁸⁰ The Office of the DDG include providing leadership and management mechanisms to the fisheries branch of DAFF as well as productive co-operative governance and implementation strategies that facilitate the productive management of the MLRF.²⁸¹

DAFF provides for fishery protection vessels (FPVs), which are significant MCS mechanisms that investigate fishing activities whilst patrolling South Africa's maritime zones. FPVs furthermore, helps with enforcement and compliance whilst patrolling, ensures compliance with the MLRA, carry out regular inspections on vessels and implement joint projects such as marine ecotourism.²⁸² FPVs therefore, play a crucial role in combatting IUU fishing in South African waters however, as previously emphasised South Africa has a large EEZ therefore, there is a critical requirement to have a substantial number FPVs policing these waters. There are just fourteen vessels, four naval helicopters and five planes accessible to patrol.²⁸³ On a good day one would only find less than three-quarters present that attend to surveillance duties at sea.²⁸⁴ In accordance with the MLRA the chief directorate for MCS is mandated to ensure enforcement and compliance of MCS on South Africa's coastline and waters.²⁸⁵ This mandate is limited, therefore, other law departments, enforcement agencies and government departments need to intervene to ensure compliance and sustainability of resources in South Africa's oceans.²⁸⁶

²⁷⁹ DAFF 'About Monitoring, Control and surveillance' available at <https://www.daff.gov.za/Branches/Fisheries-Management/Monitoring-Control-and-Surveillance>, accessed on 15 September 2019.

²⁸⁰ DAFF 'Stakeholder Engagement' available at <https://www.daff.gov.za/Branches/Fisheries-Management/Stakeholder-Engagement>, accessed on 14 September 2019.

²⁸¹ DAFF 'Office of the DDG' available at <https://www.daff.gov.za/Branches/Fisheries-Management/Office-Of-The-DDG>, accessed on 15 September 2019.

²⁸² DAFF 'Monitoring Control and Surveillance (MCS)' available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Monitoring-Control-and-Surveillance/FISHPVESSELS>, accessed on 18 March 2019.

²⁸³ Siphso Kings 'SA at sea over illegal fishing in its waters' available at <https://mg.co.za/article/2016-05-19-00-sa-at-sea-over-illegal-fishing-in-its-waters>, accessed on 20 March 2019.

²⁸⁴ *Ibid.*

²⁸⁵ DAFF 'Monitoring Control and Surveillance (MCS)' available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Monitoring-Control-and-Surveillance/FISHPVESSELS>, accessed on 18 March 2019.

²⁸⁶ *Ibid.*

DAFF carries out the measures of the MLRA, as evident above. DAFF promotes fisheries research and sustainable utilisation of fisheries, as evident from its fisheries branch above²⁸⁷ and furthermore, publishes annual reports which covers the department's achievements and challenges. DAFF also plays a crucial role in providing structures to help SADCs goal of curbing IUU fishing within the region.²⁸⁸ DAFF addresses ongoing challenges within the fisheries industry such as protecting coastal and marine ecosystems and ensuring transformation of the sector.²⁸⁹ It is evident that the department is active in its fisheries management and the protection of marine resources by their activities. The department consists of adequate regulatory measures, highlighted above. Although DAFF has asserted that the department 'appreciates the complexity of illegal fishing and would like to assure South African communities that every possible measure will be taken in order to curb illegal fishing',²⁹⁰ it is crucial to implement and enforce these measures accordingly to achieve these goals. DAFF also partakes in the initiative Operation Phakisa, discussed below.

3.5 Project Biro

According to the 2014 defence review report, it was stated:

'The ocean economy brings in R60 billion a year and securing all of this requires deterrence and a powerful intervention through surface, subsurface and air capabilities however, SA Navy vessels can no longer be made combat ready to execute the full range of missions they were designed for'.²⁹¹

Project Biro was initiated by the navy in their determination to catch illegal vessels outside of South African jurisdiction and patrol South Africa's maritime zones with enough capacity.²⁹² The project was often delayed however, towards the beginning of 2019 the project

²⁸⁷ Department of Environmental Affairs 'Fisheries Research and Development' available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Fisheries-Research-and-Development>, accessed on 23 May 2019.

²⁸⁸ DefenceWeb 'DAFF working on illegal, unregulated and unreported fishing as part of Phakisa' available at <https://www.defenceweb.co.za/security/maritime-security/daff-working-on-illegal-unregulated-and-unreported-fishing-as-part-of-phakisa/>, accessed on 20 September 2019.

²⁸⁹ South African Government 'Fisheries' available at <https://www.gov.za/about-sa/fisheries>, accessed on 21 September 2019.

²⁹⁰ DAFF 'Agriculture, Forestry and Fisheries on fighting Illegal, Unregulated and Unreported (IUU) fishing' available at <https://www.gov.za/speeches/agriculture-forestry-and-fisheries-fighting-illegal-unregulated-and-unreported-iuu-fishing>, accessed on 13 July 2020.

²⁹¹ Siphos Kings 'Illegal fishing: A global problem' *Mail and Guardian* 20 May 2016 at 8.

²⁹² *Ibid.*

has begun with the construction of three new in shore patrol vessels (IPVs), with the first vessel being expected to be patrolling South Africa's maritime zones by 2021. The construction of all three vessels are expected to be completed by 2023.²⁹³ These vessels are expected to make a significant difference in the challenge of deterrence of piracy, IUU fishing and trafficking.²⁹⁴ These missions in combatting these challenges are expected to be more successful and will play a great positive difference in maritime security.²⁹⁵

Although the project has finally made progress since many years of first being initiated, the project has often been delayed and whether this project will timeously be completed is questionable. The initial scope of the project involved the construction of six patrol vessels including three IPVs and three offshore patrol vessels (OPVs). OPVs were expected to patrol within the EEZ and high seas.²⁹⁶ IPVs perform patrol activities within the territorial sea and the coastal region.²⁹⁷ This also means while the construction of these IPV vessels will ensure more effective MCS measures for the deterrence of activities such as IUU fishing, its scope is limited and does not extend further to the EEZ of South Africa. As emphasised earlier the EEZ of South Africa is large and many IUU fishing activities take place within this region such as the Lu Huang Yuan Yu incident and therefore, this region requires effective MCS mechanisms for the deterrence of IUU fishing. The project requires necessary cooperation, planning and engagement between the organs of State as well as the private sector to be successful and timeously completed.²⁹⁸

²⁹³ MRA Online 'Project Biro will deliver three inshore patrol vessels by 2023' available at <http://maritimereview.co.za/article/ArtMID/450/ArticleID/41/Project-Biro-will-deliver-three-inshore-patrol-vessels-by-2023>, accessed on 20 September 2019.

²⁹⁴ Jay Caboz 'Three new navy ships will protect South Africa from pirates and illegal fishing - here's what they will look like' available at <https://www.businessinsider.co.za/3-new-military-patrol-vessels-are-being-built-in-cape-town-2019-2>, accessed on 24 May 2019.

²⁹⁵ Timothy Walker 'Can Project Biro help Africa to overcome its maritime security challenges?' available at <https://issafrica.org/amp/iss-today/can-project-biro-help-africa-to-overcome-its-maritime-security-challenges>, accessed on 21 September 2019.

²⁹⁶ *Ibid.*

²⁹⁷ *Ibid.*

²⁹⁸ Rebecca Campbell 'Building of new ships for South African Navy has started' available at <https://www.engineeringnews.co.za/article/the-building-of-the-new-ships-for-south-african-navy-has-started-2019-03-08>, accessed on 20 September 2019.

3.6 Vessel Monitoring Systems in South Africa (VMS)

South Africa's VMS has been operating since 2000 and as of 2016 there were more than 1000 vessels on the database.²⁹⁹ VMS provides surveillance requirements by use of a communicator on a vessel which provides information regarding where the vessel is located and provides vessel examination capabilities.³⁰⁰ DAFF has approved a VMS known as ORBCOMM VMS which sets regulatory measures for vessel owners as well as vessel operators, provides live footage of vessels, provides monitoring of illegal vessels and awareness of aquatic operations.³⁰¹ ORBCOMM also provides automatic identification system (AIS) data services and assists the IPOA-IUU in the deterrence of IUU fishing.³⁰² Communicators and AIS systems are only provided to vessels who operate legally within South Africa, to observe their activities. Many IUU fishing vessels are foreign vessels or vessels which turn off their communicators or AIS systems therefore it is a challenge to catch these IUU fishing vessels in these circumstances.

3.7 ZAcube-2 monitoring system

South Africa has launched the ZAcube-2 monitoring system which is a nanosatellite for surveillance system. The ZAcube-2 carries an AIS and tracks the movement of ships along the South African coastline.³⁰³ AIS data is crucial to determine shipping behaviour, detection and monitoring of activities such as IUU fishing by vessels on South Africa's EEZ.³⁰⁴ In this manner the ZAcube-2 nanosatellite system is moving South Africa a step forward in their sovereign data security and MCS systems. ZAcube-2 will also monitor vessels activities to

²⁹⁹ DAFF 'VMS presentation' available at <http://mpaforum.org.za/wp-content/uploads/2016/11/VMS-Presentation-First-DAFF.ppt>, accessed on 5 October 2019.

³⁰⁰ UNCLOS 'Vessels Monitoring of South African Fisheries' available at http://www.unclos.com/vesels_monitoring.pdf, accessed on 9 October 2019.

³⁰¹ ORBCOMM 'Marine Visibility, Safety and Compliance: ORBCOMM VMS' available at http://www2.orbcomm.com/vms?utm_source=twitter, accessed on 9 October 2019.

³⁰² *Ibid.*

³⁰³ Department of Science and Technology 'Science and Technology invests in Maritime Domain Awareness Satellite programme' available at <https://www.gov.za/node/787034>, accessed on 23 May 2019.

³⁰⁴ *Ibid.*

support the initiative Operation Phakisa.³⁰⁵ The ZAcube–2 system was taken into space towards the latter part of 2018 and is currently stated to be the most advanced satellite in Africa.³⁰⁶

ZAcube–2 as a vessel identification system therefore supports adequate MCS of IUU fishing, including vessel detection, which is crucial for the deterrence of IUU fishing. The system also helps with locating fishing stocks adequately. The system carries out effective communication technology methods to achieve this purpose and contains remote sensing technology which senses the present of vessels.³⁰⁷ In this way the system plays a crucial role in the deterrence of IUU fishing. However, persons who receive this vessel detection imagery and signals from the system need to be productive in signalling other measures to ensure these IUU fishing vessels are caught once detected.

3.8 The Responsible Fisheries Alliance (RFA)

The Responsible Fisheries Alliance (RFA) consists of organisations, including WWF, which works together to ensure conservation of marine ecosystems and a stronger seafood market. One of the methods which the RFA undertakes to ensure this objective is by encouraging and implementing reliable fishing practices by making use of information through collaboration, expert advice and the building of competencies.³⁰⁸ Since the RFA has been implemented there has been a significant positive difference in matters such as fisheries management as recommendations to government and a code of conduct was developed for their participants.³⁰⁹

3.9 Abalobi Mobile Application

The Abalobi mobile application was launched for the purpose of encouraging seafood traceability for small-scale fisheries and ensures ‘social justice and poverty alleviation in the small-scale fisheries chain, transformation in information manufacturing, stewardship of our

³⁰⁵ *Ibid.*

³⁰⁶ Athina May ‘ZACube-2 satellite is orbiting Earth’ available at <https://www.iol.co.za/capeargus/news/zacube-2-satellite-is-orbiting-earth-18632621>, accessed on 12 September 2019.

³⁰⁷ Gunter’s Space Page ‘ZACUBE 2 (ZA 004)’ available at https://space.skyrocket.de/doc_sdat/zacube-2.htm, accessed on 3 September 2019.

³⁰⁸ SADSTIA ‘The Responsible Fisheries Alliance’ available at <https://www.sadstia.co.za/assets/uploads/RFA-Review.pdf>, accessed on 9 October 2019.

³⁰⁹ *Ibid.*

marine resources, and resilience building in the face of climate change'.³¹⁰ Small-scale fishers upload details regarding their fisheries catch on the application, including the number of fisheries and where such fisheries has been obtained from. The application is a digital marketplace where members of Abalobi deliver fisheries to restaurants in South Africa. When these fisheries are delivered a QR code is also presented which when scanned directs the user to the application which shows information regarding the fisheries which has been delivered.³¹¹ Therefore, for the small-scale fisheries industry the application is significant in ensuring efficiency in the traceability of fisheries.

3.10 Operation Phakisa

Operation Phakisa is a fast track hands on approach to address issues as highlighted in the 2014 South African national development plan (NDP) such as unemployment, poverty and inequality.³¹² It is an initiative of South Africa and focuses on fast track solutions and results through detailed plans, dedicated delivery and collaboration.³¹³ Operation Phakisa takes on the initiative to explore South Africa's vast coastline in its economic potential whilst ensuring sustainability of its resources and addressing illegal activities such as IUU fishing.³¹⁴ One of the areas which is explored by Operation Phakisa include marine protection services and ocean governance. Operation Phakisa implements an 'overreaching, integrated ocean governance framework for sustainable growth of the ocean economy to maximize socio-economic benefits whilst ensuring adequate ocean governance protection'.³¹⁵ As of 2019 a new representative network of twenty MPAs on South Africa's EEZ was implemented by Operation Phakisa. This means an increase in South Africa's protected marine ecosystems, protection of 90 percent of

³¹⁰ Abalobi 'Abalobi' available at <http://abalobi.info/#introtext> accessed on 8 October 2019

³¹¹ Katy Rose 'Fish with a story - Abalobi is the app that helps local chefs source seafood' available at <https://m.food24.com/News-and-Guides/Features/fish-with-a-story-abalobi-is-the-app-that-helps-local-chefs-source-seafood-20180906>, accessed on 8 October 2019.

³¹² Operation Phakisa 'Introduction' available at <https://www.operationphakisa.gov.za/Pages/Home.aspx>, accessed on 25 May 2019.

³¹³ *Ibid.*

³¹⁴ Department of Environmental Affairs 'Operation Phakisa records success in enhanced compliance and enforcement in the coastal and marine environment' available at <https://www.environment.gov.za/mediarelease/operationphakisarecordssuccess>, accessed on 20 September 2019

³¹⁵ Operation Phakisa 'Marine Protection Service and Ocean Governance' available at <https://www.operationphakisa.gov.za/operations/oel/pmpg/Pages/default.aspx>, accessed on 24 May 2019.

habitat types, fisheries sustainability and marine tourism as well as a contribution to South Africa's responsibility in accordance with their global framework and commitments.³¹⁶

Operation Phakisa's success in this regard is evident according to the following statistics:

'During April 2017 and March 2018, 7842 searches took place and 5410 operations were carried out. These activities had resulted in the confiscation of goods to the value of R40 617 927, handing out of fines worth R215 220 and 43 coastal protection notices in accordance with relevant environmental legislations to persons who carried out activities without authorisation'.³¹⁷

DAFF plays a crucial role in Operation Phakisa's blue economy, which consists of marine protection services, and cooperates with law enforcement agencies to provide for Operation Phakisa to effectively deal with IUU fishing. DAFF emphasised that the need for cooperation and collaboration amongst the international community is crucial to deal with IUU fishing and for the initiative Operation Phakisa to maintain its success.³¹⁸ The South African navy also plays a crucial role in furthering Operation Phakisa's marine protection services.³¹⁹ The adoption of Operation Phakisa as a national program by South Africa was also highlighted in chapter two, in the discussion of certain instruments as a cooperative measure taken by South Africa to carry out their responsibilities in accordance with some of these instruments including the Lomé Charter.

3.11 Conclusion

It is clear from the above that South Africa's domestic framework which regulates IUU fishing in South Africa is comprehensive although has some shortcomings in its enforcement and implementation. The legislative provisions discussed from the relevant environmental statutes and initiatives reflect some international developments discussed in the previous chapter.

³¹⁶ Department of Environmental Affairs 'South Africa's Marine Protection increased by the New Representative Network of Operation Phakisa: Oceans Economy Marine Protected Areas' available at <https://www.gov.za/speeches/representative-network-28-may-2019-0000>, accessed on 25 May 2019.

³¹⁷ Department of Environmental Affairs 'Operation Phakisa records success in enhanced compliance and enforcement in the coastal and marine environment available at <https://www.environment.gov.za/mediarelease/operationphakisarecordssuccess>, accessed on 20 September 2019.

³¹⁸ DefenceWeb 'DAFF working on illegal, unregulated and unreported fishing as part of Phakisa' available at <https://www.defenceweb.co.za/security/maritime-security/daff-working-on-illegal-unregulated-and-unreported-fishing-as-part-of-phakisa/>, accessed on 20 September 2019.

³¹⁹ *Ibid.*

III

According to Kidd, the main challenges faced by authorities in ensuring environmental legislation objectives are met contain two aspects.³²⁰ Firstly, ‘fleshing out the skeletons’ of the Acts in accordance with the provisions prescribed including regulations.³²¹ There is no room for delay in this regard otherwise this will result in the legislation being a ‘dead letter’.³²² Secondly the implementation and enforcement of the legislation in an effective manner with limited resources available is also a challenge which is faced by South African environmental legislation generally.³²³ Kidd also states that a challenge is translating the environmental laws on paper into a reality.³²⁴ Furthermore, the effectiveness of South Africa’s environmental laws is an issue.³²⁵ Kidd further recognises that there are several mechanisms for enforcement available and the encouragement of development in enforcement in compliance, however despite that there is ‘considerable’ room for improvement.³²⁶ Further regulations could be prescribed to address challenges such as MCS. Glazewski states that environmental legislation is a powerful tool held by administrators however productivity ultimately depends on the capacity and political will of authorities.³²⁷ These challenges need to be addressed efficiently to ensure these provisions are productive to contribute to successful deterrence of IUU fishing.

The following chapter provides a brief analysis of Thailand and Senegal’s frameworks for deterrence of IUU fishing. The chapter aims to point out a comparison of these two States frameworks for the deterrence of IUU fishing. This chapter also provides an outline the four factors which constitutes a fisheries framework as effective and also aims to provide an outlook of weak points of a framework for the deterrence of IUU fishing.

³²⁰ Michael Kidd *Environmental Law* (2011) 143.

³²¹ *Ibid.*

³²² *Ibid.*

³²³ *Ibid* at 44.

³²⁴ *Ibid.*

³²⁵ *Ibid.*

³²⁶ *Ibid.*

³²⁷ Jan Glazewski *Environmental Law in South Africa: Second edition* (2005) 161.

4. AN OVERVIEW OF THE FRAMEWORK OF THAILAND AND SENEGAL FOR DETERRENCE OF IUU FISHING

4.1 Introduction

Thailand is an example of a State that has been effective in their efforts to govern and deter IUU fishing, and as a result of this fisheries stocks are currently well managed within these maritime zones. The same cannot be said in comparison with Senegal. IUU fishing is currently widespread in Senegal. This chapter aims to point out a comparison of these two States frameworks for the deterrence of IUU fishing. The purpose of this is to highlight the application of an effective and an ineffective framework. This is crucial, as this chapter will highlight aspects of a framework which help with successful deterrence of IUU fishing. In order to point these aspects out, this chapter expands on the factors, according to the Ministry of Thailand, which constitutes a fisheries framework as effective: fishery and fleet management, monitoring, control and surveillance (MCS) and traceability, adequate law enforcement and international cooperation. With the presence of these factors in Thailand's fisheries framework which constitutes the framework as effective and a model for other States to follow¹, the framework of Thailand is therefore used as a benchmark against which South Africa's framework will be measured. Suggestions will be made, that can be implemented in the areas that South Africa falls short, as highlighted in the final chapter.

4.2 Brief background of Thailand's fisheries framework

Thailand's framework, prior to 2015, was a far cry from what it is today. Thailand's fishing industry has been responsible for organised IUU fishing practices and horrific human rights abuses.² The fisheries framework consisted of two Acts, the Fisheries Act,³ which most

¹ Human Rights Watch 'Joint Statement on Thai Fishing Industry' available at <https://www.hrw.org/news/2018/08/17/joint-statement-thai-fishing-industry#>, accessed on 23 July 2020.

² *Ibid.*

³ Fisheries Act of 1947 was amended by Royal Ordinance on Fisheries, B.E. 2558 of 2015.

notably, did not prescribe any regulation on fishing attempts and the Thai Vessels Act⁴, which comprised of uncontrolled fishing vessel registrations.⁵ The framework during this time lacked provisions or regulations in the following areas: (i) it did not prescribe fishing gear regulations; (ii) no catch limits for fisheries existed; (iii) it consisted of an open system which made room for unsustainable development and; (iv) it did not keep count of fleet vessels as no vessel identification systems, such as UVI and AIS, were used. There was also inadequate authority by officials over vessels that entered other States under the Thailand flag.⁶ Furthermore, there was a lack of regulation by technological means as there were inadequate MCS systems used within Thailand's maritime zones.⁷

In 2015 Thailand had ensured cooperation with the European Union (EU) in combatting IUU fishing by extensively reforming their framework relating to fisheries.⁸ The EU is the largest global import market for fisheries and ensures that fisheries resulting from IUU fishing fails to enter the EU market.⁹ The EU has implemented the EU regulation to prevent, deter and eliminate IUU fishing, which provides regulatory measures to ensure this aim.¹⁰ The commission hands out 'yellow cards' to third party States who do not cooperate in combatting IUU fishing.¹¹ Thailand has received a yellow card in 2015 due to their failure to monitor fishing boats and track fishing articles adequately. This meant that should rectification be absent, seafood imports in Thailand would have been banned.

Ever since, the government of Thailand has laid down a zero-tolerance policy to IUU fishing¹² and started to implement strategies into their domestic framework to achieve the targets of the SDGs.¹³ Thailand has reformed their fisheries framework extensively. The

⁴ Thai Vessels Act B.E. 2481 of 1938.

⁵ UNESCAP 'Thailand's Action on Combating IUU Fishing' available at https://www.unescap.org/sites/default/files/Session%20D_Department%20of%20Fisheries%20Thailand.pdf, accessed on 23 September 2019.

⁶ *Ibid.*

⁷ *Ibid.*

⁸ MFA 'Top Stories: EU Announced the Lifting of a Yellow Card for Thailand' available at <http://www.mfa.go.th/main/en/news/6885/98154-EU-Announced-the-Lifting-of-a-Yellow-Card-for-Thai.html>, accessed on 21 October 2019.

⁹ *Ibid.*

¹⁰ European Commission 'Questions and Answers - Illegal, Unreported and Unregulated (IUU) fishing in general and in Thailand' available at https://europa.eu/rapid/press-release_MEMO-19-201_en.htm, accessed on 23 September 2019.

¹¹ *Ibid.*

¹² Department of European affairs 'Thailand's zero tolerance on IUU fishing and human trafficking' available at <http://www.mfa.go.th/europetouch/th/news/8359/90126-Thailand's-Zero-Tolerance-on-IUU-Fishing-and.html>, accessed on 18 March 2019.

¹³ The Royal Thai Government 'Facts and Figures: Thailand's Tangible Progress in Combatting IUU Fishing and Forced Labour' available at <http://www.mfa.go.th/europetouch/contents/files/news-20180605-120010-859147.pdf>, accessed on 25 September 2019.

reformed framework essentially comprises of four factors and these factors constitutes the framework as ‘effective’ these are: fishery and fleet management, MCS and traceability, adequate law enforcement and international cooperation.¹⁴ As highlighted in chapter one, with the existence of these factors in the fisheries framework, according to the Ministry of Thailand, Thailand is considered to be one of the most effective systems for combatting IUU fishing and which should be used as a model for other States.¹⁵ Thailand has also addressed atrocities in their fishing industry by incorporating measures in regulations and the adoption of national legislation, discussed below under law enforcement.

4.3 Legal and policy fisheries framework of Thailand

Thailand’s current legal and policy framework consists of the Royal Ordinance on Fisheries¹⁶ which comprises of law enforcement mechanisms such as penalties for IUU fishing and related activities to the value of approximately R15 000 000 or a penalty up to five times more than the value of the IUU fishing catch or up to an estimated R330 000 for every worker found illegally on the vessel.¹⁷ More than 100 IUU fishing regulations have been implemented to ensure the ROs provisions are accomplished. These regulations include the implementation of a fisheries management plan and national plan of action to prevent, deter and eliminate IUU Fishing which regulates issues with regards to IUU fishing. These regulations addresses aspects of IUU fishing including overfishing by implementing measures such as reducing Thailand’s fishing fleets, discussed below under fishery and fleet management and changing Thailand’s fisheries policy from open access to limited access fisheries. The Royal Ordinance on Thai Vessels,¹⁸ has been drafted to accompany RO for the deterrence of IUU fishing and to ensure

¹⁴ Ministry of Foreign Affairs of Kingdom of Thailand ‘Top Stories: EU Announced the Lifting of a Yellow Card for Thailand’ available at <http://www.mfa.go.th/main/en/news3/6885/98154-EU-Announced-the-Lifting-of-a-Yellow-Card-for-Thai.html>, accessed on 6 July 2020.

¹⁵ *Ibid.*

¹⁶ Royal Ordinance on Fisheries, B.E. 2558 of 2015.

¹⁷ The Royal Thai Government ‘Facts and Figures: Thailand’s Tangible Progress in Combatting IUU Fishing and Forced Labour’ available at <http://www.mfa.go.th/europetouch/contents/files/news-20180605-120010-859147.pdf>, accessed on 25 September 2019.

¹⁸ Royal Ordinance on Thai Vessels, B.E. 2561 of 2018.

compliance with international obligations such as UNCLOS.¹⁹ The amendment of the Navigation in Thai Waters Act has also been implemented to achieve this purpose.²⁰

(a) The Royal Ordinance on Fisheries (RO)

In accordance with the implementation of law and policy for deterrence of IUU fishing by the State, the RO²¹ has been adopted in 2015 with the objective of ‘facilitating an effective means of preventing, deterring and eliminating IUU fishing’²² within Thailand’s maritime zones by dealing with matters concerning fisheries. The RO ensures sustainable utilisation of marine resources, protection of the environment, safety and wellbeing of seafarers by using appropriate measures in line with international standards.²³

The RO provides an extensive definition of IUU fishing:

‘Illegal fishing means a fishing operation that is against Thai laws or of any coastal State, that is not in compliance with measures developed by a relevant international organisation for the purposes of fisheries conservation and management or that is against relevant international laws’.²⁴

‘Unreported fishing means a fishing operation that is not notified of or reported, or a fishing operation the particulars of which are incompletely reported as required by procedures by law or ministerial regulations, notifications or directives issued pursuant to law, or a fishing operation the particulars of which are falsely reported, a fishing operation in an area under the jurisdiction of an international organisation to which any such fishing operation is neither notified of nor reported, or a fishing operation in any such area the particulars of which are incompletely reported as per the rules and procedures of any such organisation, or a fishing operation in any such area the particulars of which are falsely reported’.²⁵

‘Unregulated fishing means a fishing operation in a zone under the responsibility of an international organisation undertaken by the use any fishing vessel, be it with a

¹⁹ The Royal Thai Government ‘Facts and Figures: Thailand’s Tangible Progress in Combatting IUU Fishing and Forced Labour’ available at <http://www.mfa.go.th/europetouch/contents/files/news-20180605-120010-859147.pdf>, accessed on 25 September 2019.

²⁰ *Ibid.*

²¹ Royal Ordinance on Fisheries, B.E. 2558 of 2015.

²² *Ibid.*

²³ *Ibid.*

²⁴ *Ibid.*

²⁵ *Ibid.*

designated nationality or a stateless vessel, in a manner that is not in compliance with or is in violation of fisheries conservation or management measures developed by any such international organisation, a fishing operation in a fishing ground in which no applicable fisheries conservation and management measures have been put in place, the manner of fishing of which is not in line with State responsibilities for the conservation of aquatic animal resource sources pursuant to the principles of international law'.²⁶

According to section 8 of the RO, Thailand must comply with all international regimes and conventions to which the State is party to and non-compliance and any wrongdoing will result in legal proceedings and sanctions.²⁷ Fishery management is ensured by updating data on matters such as fishing licences and fishing statistics on at least a monthly basis or shorter according to section 9.²⁸ Stateless vessels are not permitted to carry out fishing activities.²⁹ Section 12 deals with the implementation of policy which encourages stakeholder partnerships in helping to ensure protection of resources, sustainable utilisation of resources, prevent overfishing and overcapacity by ensuring good fisheries governance practices.³⁰ Fishery management, according to section 22, also recognises the rights of individuals to marine resources as a means of income for their daily livelihoods and provides for approaches to be implemented which prevent IUU fishing activities.³¹ The national fisheries committee has also been established for the purpose of ensuring fisheries management.³² A fishery management plan is sent to the committee which sets out approaches for matters such as the issuing of fishing licences in section 24.³³ Fishing licences are prescribed in section 31 for freshwater fishing activities, commercial fishing activities as well as artisanal fishing activities.³⁴ In accordance with these activities, provision is made in section 33 for the establishment of a logbook written by the person engaging in that activity where information regarding the species of fish which has been caught, the number of fish caught and where these fish were found.³⁵ Licences and the implementation of logbooks aims to achieve effective management, control and supervision of fishing activities.

²⁶ *Ibid.*

²⁷ *Ibid.*

²⁸ *Ibid.*

²⁹ *Ibid.*

³⁰ *Ibid.*

³¹ *Ibid.*

³² *Ibid.*

³³ *Ibid.*

³⁴ *Ibid.*

³⁵ *Ibid.*

The RO further provides, in section 47, for Thailand to ensure compliance with their international obligations. These obligations ensure conservation and management of fisheries resources. Compliance must include cooperation with other States, entities, private and international organisations.³⁶ Observers are also made provision for in section 51, who perform duties such as fisheries data capture as well as the observation of fisheries catch.³⁷ No individual must be in possession of fisheries which has been obtained as a result of wrongdoings, as a result of infringement, such as IUU fishing and fishing in excess of the prescribed quantity, and fisheries obtained from a vessel which has engaged in IUU fishing activities which is on the list of vessels which cannot enter Thailand's maritime zones in accordance with section 61.³⁸ Furthermore, section 67 deals with the possession of certain prohibited fishing gear and also identifies certain species of fisheries which may not be fished.³⁹

According to section 80, effective traceability mechanisms must be implemented which can trace the source from where and how a fisheries item has been caught. Any individual who wants to carry out a fishing activity by use of a commercial fishing vessel must have installed a fishing monitoring system, must draw up a fishing logbook, report at each port-in-port-out (PIPO) on their activities and attach a marking on the fishing vessel according to section 81.⁴⁰ Section 94 states that a non-Thai vessel which has been involved in IUU fishing may not be brought to the State. Section 105 provides for actions to be taken should an individual be found to have committed an offence including the confiscation of items obtained as a result of that offence, such as fisheries.⁴¹ Licences may also be revoked should an individual have committed an offence or fail to abide by the conditions of the licence according to section 111.⁴² List of vessels which has engaged in IUU fishing are published and the registration of such vessels may be revoked.⁴³

Criminal Sanctions are further imposed for offences committed in contravention of the RO. These are included in chapter eleven of the RO and are detailed in their application. Different sanctions are imposed for different offences as stipulated in this chapter. These sanctions include, for the offence of an individual bringing a non-Thai vessel which has

³⁶ *Ibid.*

³⁷ *Ibid.*

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ *Ibid.*

⁴¹ *Ibid.*

⁴² *Ibid.*

⁴³ *Ibid.*

engaged in IUU fishing into Thailand's maritime zones shall, according to section 159, 'be fined an amount between 1 000 000 Thai baht and 30 000 000 baht (approximately R500 000–R15 000 000), or a fine of five times the value of the marine species or resources caught'.⁴⁴ Individuals who engage in fishing activities which is considered a serious infringement face the penalties of seizure of items, detention of vessels used to commit that infringement, suspension and revocation of licences and prohibition to engage in fisheries activities until compliance requirements are met, according to section 113.⁴⁵ Actions regarded as a serious infringement in accordance with the above penalties include, in section 114, using a Stateless vessel to engage in fishing activities, fishing without a licence, use of prohibited fishing gear, drawing up of a logbook based on false evidence and documentation, overfishing, fishing in out of bounds areas, fishing in a manner which is in contravention of the rules of an international organisation or of a coastal State, tampering with the registration of a vessel or an investigation by an official and participating in IUU fishing.⁴⁶ In all circumstances of an either or provision the higher fine applies.

Further penalties include, any individual who engages in artisanal fishing with fishing gear and vessels of a size as prescribed or without a valid artisanal fishing licence is fined between 10 000 baht and 100 000 baht (R5000–R50 000), a fine of three times the value of the fisheries caught as a result of such fishing activity.⁴⁷ However, if the fishing gear or fishing vessel is prescribed by the Director General it is then permissible. Any individual who engages in commercial fishing without a licence is subject to a fine of between 100 000 baht and 200 000 baht (R50 000–R100 000) or five times more than the marine species obtained as a result of such fishing activity. Further sanctions and offences are made provision for, in chapter eleven of the RO and will be further discussed in chapter five.

(b) Discussion of the factors which constitutes Thailand's fisheries framework as effective

The presence of the four factors which constitutes Thailand's fisheries framework as effective is discussed below. These are: fishery and fleet management, MCS and traceability, adequate

⁴⁴ *Ibid.*

⁴⁵ *Ibid.*

⁴⁶ *Ibid.*

⁴⁷ *Ibid.*

law enforcement and international cooperation. These factors has also been incorporated into the legal and policy framework related to fisheries in Thailand, particularly the RO discussed above. The action that the State has been taking in accordance with the law and policy in which these factors has been incorporated and statistics are discussed below.

(i) Fishery and fleet management

In accordance with fishery and fleet management, section 9 of the RO provides for fishery management by updating data on fishery matters, highlighted above. Accordingly surveys were conducted regarding the construction of Thailand's fleet vessels and electronic vessels databases were updated.⁴⁸ Fishing fleets in Thailand has been reduced in accordance with MSY calculations.⁴⁹ Less than 40 000 fishing vessels now operate within Thailand's maritime zones, this has dropped from over 50 000 vessels in 2015.⁵⁰ Thailand has implemented GPS vessel tracking, UVI marking of vessel systems and an electronic licences scheme to ensure protection of marine resources. Thailand has also banned highly destructive fishing gears.⁵¹ Section 67 of the RO deals with the possession of certain prohibited fishing gear. As of 2018 over 1000 IUU fishing vessels have been impounded, locked, painted, and marked with UVI systems. Buy-back systems has been implemented for IUU fishing vessels.⁵² These vessels are withdrawn through this system. As of the beginning of 2018 more than 50 IUU fishing vessels has been bought back and an estimated total of R94 000 000 has been obtained as a result of the buy-back system.⁵³ The RO also prescribes a national fisheries committee for the purpose of ensuring fisheries management and fishery management plans are sent to the committee and these plans deal with aspects such as issuing of fishing licences, in accordance with section 24 of the RO. Section 22 recognises the rights of all individuals to marine resources as a source of income and accordingly provides fishery management approaches to be implemented to prevent IUU fishing. Observers furthermore carry out fishery and fleet management in accordance with section 51 of the RO by capturing fisheries data.

⁴⁸ The Royal Thai Government 'Facts and Figures: Thailand's Tangible Progress in Combatting IUU Fishing and Forced Labour' available at <http://www.mfa.go.th/europetouch/contents/files/news-20180605-120010-859147.pdf>, accessed on 25 September 2019.

⁴⁹ *Ibid.*

⁵⁰ *Ibid.*

⁵¹ *Ibid.*

⁵² *Ibid.*

⁵³ *Ibid.*

Fishing licences has also been prescribed and regulated in accordance with section 31 of the RO.

(ii) Monitoring, control and surveillance (MCS) and traceability

Section 81 of the RO provides for these MCS measures, vessels must have installed a fishery monitoring system, must draw up a fishing logbook, report at each port-in-port-out (PIPO) on their activities and attach a marking on the fishing vessel according to this provision. Accordingly Thailand has implemented these MCS measures including the implementation of a fishery monitoring system on vessels, and VMS. VMS has seen a significant increase in effectiveness in Thailand. More than 6100 commercial fishing vessels has VMS installed and VMS equipment has been sealed to prevent removal.⁵⁴ Around 32 PIPO centres for local commercial vessels were implemented for the purposes of investigating documentation, crew and fisheries catch of that vessel when entering and exiting ports. All commercial vessels are required to stop at these PIPO centres. PIPO are also made provision for in accordance with RO, as highlighted above. Forward inspection points (FIPs) has also been implemented for this purpose. Over nineteen FIP points exist across Thailand.⁵⁵ 22 ports for foreign vessels has been implemented with stern control measures for imports in accordance with the PSMA agreement, highlighted in chapter two. The FMC is implemented for the purpose of surveillance of activities at sea and makes use of VMS to carry out this duty. FMC also works with PIPO centres in ensuring effective MCS. FMC is the main centre for MCS operations. FMC makes use of monitoring systems such as CCTV cameras and electronic logbooks (e-logbooks) to carry out MCS. These electronic systems are usually used for MCS of foreign vessel activities. To further strengthen the effectiveness of PIPO and FMC the common risk assessment system and the overhaul improvement of IT infrastructure is implemented. The system provides a means of reassuring that data captured is correct. In accordance with section 51 of the RO observers also observe fisheries catch. Training is provided to inspectors and staff of FMC and PIPO to ensure tasks are carried out correctly. Electronic systems are implemented at ports to

⁵⁴ The Royal Thai government 'Facts and Figures: Thailand's Tangible Progress in Combatting IUU Fishing and Forced Labour' available at <http://www.mfa.go.th/europetouch/contents/files/news-20180605-120010-859147.pdf>, accessed on 25 September 2019. 'A total of 6,125 commercial fishing vessels, 30 GT and over, (as of December 2017) have been installed and monitored with VMS. All VMS equipment on board were sealed to prevent removal and tampering'.

⁵⁵ The Royal Thai Government 'Facts and Figures: Thailand's Tangible Progress in Combatting IUU Fishing and Forced Labour' available at <http://www.mfa.go.th/europetouch/contents/files/news-20180605-120010-859147.pdf>, accessed on 25 September 2019.

cross check data such as the quantity of fisheries and species of catch against fishing gears and recorded data in the logbook.⁵⁶

Section 80 of the RO prescribes traceability requirements including a system which can trace the source from where and how a fisheries item has been caught. Traceability requirements are accordingly met with the implementation of the Thai-flagged catch certificate system and port State measures (PSM) linked and processing statement system (PSS).⁵⁷ These systems are electronic traceability systems for catch from Thai-flagged vessels and foreign-flagged vessels has been developed to ensure IUU fisheries catch does not enter the market. The Thai-flagged catch certification system has been implemented to be an extensive traceability system for fishery products along the supply chain from catch and processing to the export of finished products.⁵⁸ The system signals inspectors of unusual activity is taking place in the traceability system. PSM measures are used to meet traceability requirements for foreign flagged vessels, these include import management and inspection of foreign-flagged and carrier vessels in accordance with the PSMA and the IOTC guidelines.⁵⁹ ‘Logbooks, marine catch purchasing document, marine catch transshipment document and catch certificate’⁶⁰ are used in accordance with these systems for traceability of fishing catches. Training courses are offered to traceability inspectors to enhance their productivity.⁶¹ Thailand ensures cooperation amongst global instruments including RFMOs, coastal States and flag States to ensure cross checking of fisheries catch including where the fisheries catch was obtained and if it was obtained in a manner that did not contravene the law.⁶² Section 33 of the RO provides for the establishment of a logbook written by the person engaging in that activity where information regarding the species of fish which has been caught, the number of fish caught and where these fish were found.⁶³

⁵⁶ *Ibid.*

⁵⁷ *Ibid.*

⁵⁸ *Ibid.*

⁵⁹ *Ibid.*

⁶⁰ *Ibid.*

⁶¹ *Ibid.*

⁶² *Ibid.*

⁶³ *Ibid.*

(iii) Adequate law enforcement

Several provisions of the RO deals with law enforcement for the deterrence of IUU fishing including section 61, section 95, section 105 and section 111, highlighted above. Furthermore, chapter eleven of the RO prescribes criminal sanctions for contravention of the provisions of the RO. As evident from the above highlighted provisions of chapter eleven above, criminal sanctions in accordance with the RO are detailed. Further criminal sanctions are discussed in chapter five. Reflecting on the actions Thailand has taken in accordance with its current fishery law enforcement, the Labour Protection Act⁶⁴ has been amended to ensure labour protection in the fishing and seafood processing industry. In addition the Royal Ordinance on Management of Employment of Foreign Workers⁶⁵ has been enacted for the betterment of the management of recruitment agencies and prevent recurring labour abuses.⁶⁶ Several other regulations and legislative measures has been adopted to deal with atrocities in Thailand's fishing industry. These include the Regulation on Labour Inspection which imposes criminal sanctions should atrocities be found to be occurring by fisheries inspectors such as forced labour. The sanction has further led to inspection activities at ports being escalated in Thailand and at seafood factories. According to research statistics the implementation of this sanction has led to the prosecution of more than 4243 cases of fisheries related crimes including 2020 cases of failure to install VMS.⁶⁷ Sanctions that has been imposed in these cases include the 'seizure of fishing gear and marine species, suspension and revocation of licence and detention of fishing vessels with a fine of over R18 000 000'⁶⁸ An online database of all fisheries and human trafficking cases has been implemented to accommodate the prosecution of wrongdoers by sharing of information amongst law enforcement agencies and public prosecutors. Relevant authorities attend training courses to ensure efficiency in tackling law enforcement issues including prosecution for IUU fishing.⁶⁹ Within a twelve-month period around two hundred and twenty-three small scale fishing vessels and two hundred and twenty-six commercial fishing vessels has been charged for the offence of IUU fishing.⁷⁰

⁶⁴ Labour Protection Amendment Act B.E. 2562 of 2019.

⁶⁵ Royal Ordinance Concerning the Management of Employment of Foreign Workers B.E.2560 of 2017.

⁶⁶ *Ibid.*

⁶⁷ *Ibid.*

⁶⁸ *Ibid.*

⁶⁹ *Ibid.*

⁷⁰ Apinya Wipatayotin 'IUU fishing is a crime issue, says Prawit', available at <https://www.bangkokpost.com/thailand/general/1690072/iuu-fishing-is-a-crime-issue-says-prawit>, accessed on 25 September 2019.

(iv) International Cooperation

In accordance with international cooperation of Thailand, the RO recognises that the measures imposed must be in accordance with international standards. Section 8 of the RO deals with imposing sanctions for non-compliance with international regimes and conventions. Section 47 further states that Thailand must ensure compliance with their international obligations including cooperation amongst other States.⁷¹ Thailand is a member State and has acceded to several international fisheries instruments including the PSMA, UNFSA,⁷² SIOFA and the IOTC.⁷³ In accordance with these instruments some of the measures which Thailand has undertaken include capacity building, conservation and management measures and control measures for overseas fishing. Thailand also partakes and hosts meetings of these instruments such as the 2018 annual meeting of the IOTC. In accordance with international commitments Thailand has also ‘vowed to work for the region as a whole in taking the lead in the formation of an Asean Common Fisheries Policy, in order to solve the problem of illegal fishing and promote sustainable fishery management’.⁷⁴ In accordance with the RO section 12 encourages the implementation of policy and stakeholder partnerships in helping to ensure protection of resources, sustainable utilisation of resources, prevent overfishing and overcapacity by ensuring good fisheries governance practices. International cooperation is ensured by adhering to measures of these instruments. The IOTC and several other instruments encourage the implementation of policy and this is provided for in this provision of the RO.

(c) Conclusion

As of 2018 Thailand had spent 2.1 billion baht (approximately R1 027 703.73) on the deterrence of IUU fishing⁷⁵ In the 2019 Stop IUU Fishing awards, which has the purpose of encouraging other countries in the fight against IUU fishing, Thailand has been placed

⁷¹ *Ibid.*

⁷² Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 4 August 1995, 2167 UNTS 3, 4 December 1995.

⁷³ The Royal Thai Government ‘Facts and Figures: Thailand’s Tangible Progress in Combatting IUU Fishing and Forced Labour’ available at <http://www.mfa.go.th/europetouch/contents/files/news-20180605-120010-859147.pdf>, accessed on 25 September 2019.

⁷⁴ The Nation Thailand ‘Thailand vows Asean common fishing policy’ available at <https://www.nationthailand.com/Economy/30301077>, accessed on 27 July 2020.

⁷⁵ The Royal Thai Government ‘Facts and Figures: Thailand’s Tangible Progress in Combatting IUU Fishing and Forced Labour’ available at <http://www.mfa.go.th/europetouch/contents/files/news-20180605-120010-859147.pdf>, accessed on 25 September 2019.

second.⁷⁶ Due to the continued management efforts and initiatives implemented by the State in the reformed framework including addressing atrocities in the fishing industry and implementing measures for tackling the deterrence of IUU fishing, the EU had lifted the yellow card on Thailand.⁷⁷ The Ministry of Thailand along with the EU currently recognises Thailand's fisheries framework as one of the most effective frameworks within the region due to the presence of the factors which constitute the framework as effective, highlighted above.⁷⁸ The EU has further asserted that the framework should be used as an example to other States in the fight against IUU fishing and management of marine resources.⁷⁹ These factors are incorporated in the regulations and law and policy including the RO, discussed above. The incorporation of these factors in the reformed fisheries framework of Thailand is extensive in its application and has proved to be a success in accordance with the statistics indicated above. Authorities assert the figure of IUU fishing vessels has been greatly reduced throughout the implementation of the reformed framework.⁸⁰

4.4 Introduction to the state of fisheries within Senegal

IUU fishing is currently extensive in northwest African States maritime zones including the maritime zones of several nations including Senegal. Within this region there are estimated to be seven million individuals whom rely on marine resources as a source of income for their daily livelihoods however, this activity is restricted due to the large numbers of fleets that enter these maritime zones and often engage in IUU fishing activities.⁸¹ According to statistics an estimated 20 percent of the world's loss from IUU fishing occurs within this region and IUU

⁷⁶ International MCS Network '3rd Stop IUU Fishing Award' available at <http://imcsnet.org/3rd-stop-iuu-fishing-award/>, accessed on 29 November 2019.

⁷⁷ Thai PBS World 'EU lifts' yellow card' on Thailand for successful tackling of IUU fishing' available at <https://www.thaipbsworld.com/eu-lifts-yellow-card-on-thailand-for-successful-tackling-of-iuu-fishing/>, accessed on 26 September 2019.

⁷⁸ Ministry of Foreign Affairs of Kingdom of Thailand 'Top Stories: EU Announced the Lifting of a Yellow Card for Thailand' available at <http://www.mfa.go.th/main/en/news3/6885/98154-EU-Announced-the-Lifting-of-a-Yellow-Card-for-Thai.html>, accessed on 6 July 2020.

⁷⁹ *Ibid.*

⁸⁰ Marimi Kishimoto 'Thailand combats illegal fishing after EU threatens seafood ban' available at <https://asia.nikkei.com/Politics/Thailand-combats-illegal-fishing-after-EU-threatens-seafood-ban>, accessed on 15 March 2019.

⁸¹ D Belhabib 'West Africa: Illegal fishing, the black hole in the seas – Samudra report' (No. 77) West Africa: Illegal fishing (2017) available at https://www.icsf.net/images/samudra/pdf/english/issue_77/4319_art_Sam77_e_art06.pdf, accessed on 25 May 2019.

fishing is worth around US\$2.3 billion annually within northwest Africa.⁸² Illegal commercial fleets along the West African coastal region, in particular, has contributed to the loss of more than US\$272 million per annum due to IUU fishing.⁸³ IUU fishing has also resulted in the depletion of over 50 percent of fish stocks of the region.⁸⁴

Within Senegal's maritime zones, fishing is an important activity for the economy and the livelihoods of many citizens. Senegal's marine species are considered one of the most biologically diverse in the world.⁸⁵ The fishing sector in Senegal generates around 100 000 jobs for citizens of Senegal and contributes to revenue through various fishing agreements.⁸⁶ Senegal is also one of the largest fish consuming nations of the world.⁸⁷ Fisheries is an important factor for the Senegalese economy as statistics suggest around 14.63 percent of the profit made from exports was from fisheries, in 2016.⁸⁸ Furthermore, this figure contributed to around 3.2 percent of the GDP. In 2016, the fisheries sector has contributed to roughly around six hundred thousand jobs. However, according to Senegalese officials' fishery management is currently not a priority for the Senegalese government.⁸⁹ It is important that Senegal develops and implements policies, laws, programs, global relations to protect their marine resources.

⁸² *Ibid.*

⁸³ Barthélemy Bleédé, André Diouf and Pascaline compaoré 'How can Senegal combat illegal fishing?' available at <https://issafrica.org/iss-today/how-can-senegal-combat-illegal-fishing>, accessed on 28 September 2019.

⁸⁴ USAID 'Senegal fisheries applied political economy analysis' available at <https://www.usaid.gov/documents/1860/senegal-fisheries-applied-political-economy-analysis>, accessed on 24 June 2019.

⁸⁵ USAID 'Collaborative Management for a Sustainable Fisheries Future in Senegal (COMFISH)' available at <https://www.globalwaters.org/HowWeWork/Activities/collaborative-management-sustainable-fisheries-future-senegal>, accessed on 27 September 2019

⁸⁶ UNEP 'The fisheries sector in Senegal' available at https://unep.ch/etu/publications/Synth_Senegal.PDF, accessed on 26 September 2019.

⁸⁷ USAID 'Collaborative Management for a Sustainable Fisheries Future in Senegal (COMFISH)' available at <https://www.globalwaters.org/HowWeWork/Activities/collaborative-management-sustainable-fisheries-future-senegal>, accessed on 27 September 2019.

⁸⁸ Diedhiou, Idrissa, Yang, Zhengyong 'Senegal's fisheries policies: Evolution and performance' available at <https://pubag.nal.usda.gov/catalog/6133107>, accessed on 26 September 2019.

⁸⁹ Meaghan Beatley and Sam Edwards Overfished: In Senegal, empty nets lead to hunger and violence available at <https://gpinvestigations.pri.org/overfished-in-senegal-empty-nets-lead-to-hunger-and-violence-e3b5d0c9a686>, accessed on 26 September 2019.

4.5 IUU fishing in Senegal's maritime zones

Within Senegal, fish stocks has been greatly lessening in numbers.⁹⁰ IUU fishing within Senegal's maritime zones has had a great impact in the following areas: it has caused the depletion of fish stocks, it causes a decrease in foreign vessels which are authorised to fish within Senegal's maritime zones, it threatens food security and the economic livelihoods of millions of citizens.⁹¹ Between 1999 and 2011 the estimated IUU fishing catch was 2.6 million tons which was estimated to be worth US\$300 million per annum.⁹² Many foreign vessels have sought licences to fish within the maritime zones of neighboring States of Senegal. However, these vessels enter Senegal's maritime zones illegally and utilise their fish stocks. Several fishing companies engage fraudulent practices relating to illegal fishing within Senegal such as unlawful licences.⁹³

Many European and Asian vessels engage in IUU fishing activities within Senegal's maritime zones. According to statistics the number of marine species which are caught by Senegalese vessels has decreased by more than 80 percent in 2017.⁹⁴ Artisanal Senegalese fishers have increasingly been catching fish from other States maritime zones due to the scarcity of marine resources within Senegal's maritime zones. Around 40 percent of their catch comes from other States maritime zones.⁹⁵ Years of overfishing has led to the scarcity of marine resources within Senegal's maritime zones which has resulted in West African States fighting over marine living resources. According to the FAO around 90 percent of Senegal's maritime zones are completely fished.⁹⁶ Senegal used to have a supply of fish within its maritime zones which was sufficient to feed more than 650 000 people, today Senegal's maritime zones can only provide for an estimated mere 70 000 people.⁹⁷ This indicates that marine resources within Senegal's maritime zones are close to depletion and therefore future stocks of marine resources are threatened. The depletion of fish stocks has disastrous effects as highlighted in chapter one. As a further result, fish are being sold at high prices in Senegal. The nutritious food source

⁹⁰ USAID 'Senegal fisheries applied political economy analysis' available at <https://www.usaid.gov/documents/1860/senegal-fisheries-applied-political-economy-analysis>, accessed on 24 June 2019.

⁹¹ *Ibid.*

⁹² *Ibid.*

⁹³ *Ibid.*

⁹⁴ Meaghan Beatley and Sam Edwards 'Overfished: In Senegal, empty nets lead to hunger and violence' available at <https://gpinvestigations.pri.org/overfished-in-senegal-empty-nets-lead-to-hunger-and-violence-e3b5d0c9a686>, accessed on 26 September 2019.

⁹⁵ *Ibid.*

⁹⁶ *Ibid.*

⁹⁷ *Ibid.*

crisis as a result of these activities and conditions has led to many citizens migrating to other States.

4.6 Senegal's initiatives for deterrence of IUU fishing

Senegal has partnered with the EU on sustainable fishing since the 1980s.⁹⁸ In 2015 the EU and Senegal had concluded a sustainable fisheries partnership agreement which permits EU vessels to fish within Senegal's maritime zones.⁹⁹ This agreement is also a part of the tuna network agreement in west Africa.¹⁰⁰ As of mid-2019 the EU has signed a new protocol to the current sustainable fisheries partnership agreement as the current protocol is due to expire.¹⁰¹ According to the new protocol EU vessels including a 'maximum of 28 tuna seiners, ten pole-and-liners, five long liners and two trawlers to fish tuna-like species and hake are permitted in Senegal's maritime zones'.¹⁰² The allocation of these fishing rights is in accordance with research and data, the ICCATs advice and stakeholders agreements. The EU is expected to hand over the sum of €1 700 000 per annum to Senegal in exchange for these fishing rights. This protocol is expected to deal with conservation, sustainability and management of marine resources of Senegal's maritime zones by implementing measures such as minimising TACs and enhancing the role of fishing observers.¹⁰³ Out of the €1 700 000, €900 000 will be used to contribute to sustainable fishing and management.¹⁰⁴

Senegal is one of the five States in which Greenpeace operates. Greenpeace and its role in deterrence of IUU fishing is discussed in chapter two. Within Senegal the organisation holds many campaigns to ensure protection of the Senegal's maritime zones and ensure sustainable fishing.¹⁰⁵ As of 2019 Senegal has signed a deal with Liberia to use their marine living resources and in return provide training to their fishermen and assistance in their fisheries

⁹⁸ European Commission 'EU signs sustainable fishing partnership agreement protocol with Senegal' available at https://ec.europa.eu/fisheries/press/eu-signs-sustainable-fishing-partnership-agreement-protocol-senegal_en, accessed on 25 September 2019.

⁹⁹ European Commission 'Fisheries Partnership Agreement' available at https://ec.europa.eu/fisheries/cfp/international/agreements/senegal_en, accessed on 23 September 2019.

¹⁰⁰ *Ibid.*

¹⁰¹ European Commission 'EU signs sustainable fishing partnership agreement protocol with Senegal' available at https://ec.europa.eu/fisheries/press/eu-signs-sustainable-fishing-partnership-agreement-protocol-senegal_en, accessed on 25 September 2019.

¹⁰² *Ibid.*

¹⁰³ *Ibid.*

¹⁰⁴ *Ibid.*

¹⁰⁵ Greenpeace '#Senegal' available at <https://www.greenpeace.org/africa/en/tag/senegal/>, accessed on 27 September 2019.

industry.¹⁰⁶ According to the deal Senegal is permitted to fish up to 40 000 tons of fish per annum for five years.¹⁰⁷

These are examples of the initiatives has been taken to contribute to sustainable fishing and deterrence of IUU fishing within Senegal's maritime zones. However, the presence of international contributors and funders such as the EU has been shown to be the only significant contribution to deterrence of IUU fishing within Senegal and the northwest African region.¹⁰⁸ Senegal's domestic framework for the deterrence of IUU fishing is severely weak.¹⁰⁹ This framework will be briefly discussed below.

4.7 Senegal's domestic framework for deterrence of IUU fishing

Senegal's fisheries sector consists of the Ministry of Fisheries which is responsible for ensuring fisheries resources within Senegal's EEZ are sustainable.¹¹⁰ The Ministry of Fisheries consists of several branches, namely, the Directorate of Fisheries Protection and Surveillance and the Department of Marine Fisheries.¹¹¹ Annually recommendations are submitted to the Ministry of Fisheries regarding concerns of the state of fisheries within Senegal such as 'freezing fishing effort and allowing fishing stocks to be rebuilt by 2015'.¹¹² However, these recommendations are never heeded to and the state of fisheries within Senegal continues to decline.¹¹³

Senegal's legal and policy framework regulating fishing had existed in the Fisheries Act¹¹⁴ which defined the rights of fishers and encouraged co-management approaches for sustainability of marine species¹¹⁵ The Fisheries Act was however, hardly enforced and supported by Senegal's fisheries industry. This has led to a string of policies embodying

¹⁰⁶ All Africa 'West Africa: Fish-Drained Senegal to Exploit Liberian Waters Through New Agreement With Government' available at <https://allafrica.com/stories/201901300623.html>, accessed on 27 September 2019

¹⁰⁷ *Ibid.*

¹⁰⁸ Alkaly Doumbouya 'Assessing the Effectiveness of Monitoring Control and Surveillance of Illegal Fishing: The Case of West Africa' available at <https://www.frontiersin.org/articles/10.3389/fmars.2017.00050/full>, accessed on 24 November 2019.

¹⁰⁹ *Ibid.*

¹¹⁰ Belhabib D, A Padilla, UR Sumalia, D Pauly 'On governance in fisheries in Senegal: from top-down control to co-management' (2017) *SemanticsScholar* 459.

¹¹¹ *Ibid.*

¹¹² *Ibid.*

¹¹³ *Ibid.*

¹¹⁴ Fisheries Act of 1998.

¹¹⁵ Belhabib D, A Padilla, UR Sumalia, D Pauly 'On governance in fisheries in Senegal: from top-down control to co-management' (2017) *SemanticsScholar* 461.

sustainability of fish stocks however, with limited success.¹¹⁶ The Code of Fisheries of Senegal was implemented in 2015¹¹⁷ which regulates ‘capture, transport, transfer, possession, sale, offer for sale and buying of sawfish and the blackchin guitarfish’.¹¹⁸ However, the Code of Fisheries of Senegal has also not shown much success.¹¹⁹ The lack of success in measures, policies and legislation to manage fisheries and deter IUU fishing is due to a list of issues, *inter alia*, which Senegal faces and has not addressed, including a lack of control by the government, mistrust between fishing communities and the government, overcapacity, conflict of interests, the lack of stakeholder and local organisation participation in formulation of policy, frequent changing of political systems and policies on fisheries, lack of research involved when making decisions, lack of NGO participation in decision making, lack of communication to the public and members as there is no website available, lack of civil society participation in the decision making process and lack of scientific research in making decisions.

According to Doumbouya, a factor which significantly hinders the deterrence of IUU fishing is Senegal’s weak MCS systems.¹²⁰ Within Senegal factors such as, detection escape mechanisms which include offenders interfering with electronic detection systems, ‘flag hopping’ to avoid prosecution, use of different vessel names and forging vessel licences and certificates are some of the actions taken by illegal seafarers which significantly threatens MCS systems and the deterrence of IUU fishing in Senegal.¹²¹ MCS of vessels is not implemented forcefully and the necessary mechanisms are not provided by the State to deal with these factors which threaten MCS in Senegal’s maritime zones. In addition to the list of issues which Senegal faces stated above, some of the important issues which Senegal faces in the fight against IUU fishing is that the governance in Senegal is severely poor and there is a high rate of corruption in the State.¹²² Furthermore, acquiring and strengthening the implementation of measures to prevent IUU fishing is a challenge of the State.¹²³

¹¹⁶ *Ibid.*

¹¹⁷ Code of fisheries of Senegal Act 18 of 2015.

¹¹⁸ CITES ‘Senegal: Management Measures’ available at <https://cites.org/sites/default/files/eng/prog/shark/images/Senegal.pdf>, accessed on 29 November 2019.

¹¹⁹ Alkaly Doumbouya ‘Assessing the Effectiveness of Monitoring Control and Surveillance of Illegal Fishing: The Case of West Africa’ available at <https://www.frontiersin.org/articles/10.3389/fmars.2017.00050/full>, accessed on 24 November 2019.

¹²⁰ *Ibid.*

¹²¹ *Ibid.*

¹²² *Ibid.*

¹²³ USAID ‘Threats to Senegal’s fishing sector: A case study from the Ziguinchor region’ available at <https://issafrika.org/research/west-africa-report/threats-to-senegals-fishing-sector-a-case-study-from-the-ziguinchor-region>, accessed on 27 September 2019.

This analysis of Senegal's framework for deterrence of IUU fishing has shown that its framework is crucially weak and requires an extensive amount of work to be effective. It is clear that the factors which constitute Thailand's framework as effective are not present in Senegal's fisheries framework, especially weak MCS systems. As highlighted, Senegal has not implemented an adequate legal and policy framework. The lack of success in the implementation of the legal and policy framework is due to a range of issues coupled together, highlighted above. It can therefore be said that the presence of these issues in any country contributes to inadequacy in the legal and policy framework for deterrence of IUU fishing. Although the government of Senegal is taking an initiative to deal with their fisheries framework in the fight against IUU fishing by implementing policy and legislation, statistics indicate, as highlighted, that a greater amount of work need to be done, such as addressing the issues that hinder the success of law and policy, listed above. Officials have also asserted that fisheries remain the least of priorities for the government of Senegal. Fisheries need to be one of the centre priorities of the State to achieve an effective fishery framework for deterrence of IUU fishing. Senegal's fisheries sector is diverse and can generate economic, social and environmental benefits should the State be more active in implementing fisheries management measures.

4.8 Conclusion

This chapter has analysed the framework for deterrence of IUU fishing of Thailand and Senegal. Thailand's fisheries framework which consists of necessary factors for deterrence has proven to be effective and has delivered successful results. Senegal's fisheries framework, however, has proven to be a far cry from Thailand and requires significant efforts to achieve successful deterrence of IUU fishing. The necessary factors are present in Thailand's legal and policy framework for deterrence of IUU fishing and Thailand has also taken action to implement these factors, evident from the above discussion. Therefore, the importance of taking action by implementing these factors contained in the legal and policy framework cannot be stressed enough to ensure a successful framework for deterrence of IUU fishing. Suggestions will be made in the next chapter, which may be implemented to address the shortcomings in South Africa's framework. Thailand's framework will be further discussed and the factors contained and action taken accordingly by Thailand is used as a standard by which

IV

South Africa's framework will be measured to determine its effectiveness. Furthermore, Thailand's framework will also be used as suggestions for challenges such as gaps in South Africa's framework for deterrence of IUU fishing. In addition, the discussion on Senegal's framework will be used to determine if any inadequacies which are present in Senegal's legal and policy framework, are present in South Africa's legal and policy framework.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

Findings from the previous chapters are as follows: Chapter one has highlighted an understanding of IUU fishing and portrayed the seriousness of IUU fishing globally. This chapter has also established that flaws that may be present in frameworks for deterrence of IUU fishing globally. In addition the methodology has clarified that an effective framework for deterrence of IUU fishing is measured against four factors which are present in Thailand's framework. Chapter two highlighted the global framework relative to South Africa for deterrence of IUU fishing. It was emphasised that this framework is significant for deterrence of IUU fishing in South Africa's maritime zones however, many challenges are faced which hinder the success of these instruments such as the need for productive collaboration. It was further emphasised that these international cooperation may be ensured should States satisfy their obligations in accordance with these instruments and address the challenges. The role which South Africa plays in accordance with these instruments as well as the extent to which South Africa carries out their obligations in accordance with these instruments was discussed. The analysis of the domestic framework in chapter three proved that this framework is comprehensive however, further challenges are faced such as lack of coordination. Gaps were also pointed out in the framework such as seafarers getting away with the act of IUU fishing and not being apprehended and fines imposed for the commission of IUU fishing. The analysis of Thailand's framework which include the four factors which constitutes the framework as effective, proved that this framework should be used as an example to other States in the fight against IUU fishing, while these factors are not present at all in Senegal's framework and major flaws were found in the legal and policy framework. The findings from these chapters has essentially suggested that there are gaps in the framework for deterrence of IUU fishing in South Africa. The analysis has also provided a means to determine the effectiveness of the South African framework in accordance with the four factors. The purpose of this chapter is to determine the effectiveness of the South African framework for deterrence of IUU fishing in South Africa's maritime zones and provide recommendations that South Africa can adopt to address these shortcomings. This chapter will consider the four factors which constitute Thailand's framework as effective in accordance with South Africa's framework and the

discussion will include a comparison of Thailand's effective fisheries framework to South Africa's framework to highlight any further gaps in its framework and will be used for recommendations.

5.2 Determining the effectiveness of the South African framework for deterrence of IUU fishing and recommendations

The following will consider the initiatives, provisions and regulations of South Africa's domestic framework and international framework discussed in the previous chapters, in relation to the four factors which constitute a framework as effective as discussed in chapter four and this discussion will be used to determine whether the South African framework for deterrence of IUU fishing in South Africa's maritime zones is comprehensive and effective. Several provisions of the legislation discussed in chapter three applies to more than one factor and as discussed below. Recommendations for shortcomings in the South African framework are also included in this discussion.

(a) Fishery and fleet management

From the discussion in chapter three it is evident that South Africa's fishery and fleet management framework is similar to Thailand's in some aspects. The MLRA¹ prescribes fishery management areas which consists of conservation and protection measures for marine species in these areas. In addition, priority fishing areas are also prescribed which requires special attention and these areas are prescribed to ensure authorised fishing takes place. According to Norman 'the special distributions of marine target species on a fishery sector by sector basis as well as any bycatch species that might be of cross-cutting significance must be used when identifying fishery management areas and fishery priority areas'.² According to Cochrane whilst the MLRA provides for operational management plans, the MLRA still falls short in not making provision for management plans specifically to be developed for marine

¹ Marine Living Resources Act 18 of 1998.

² Centre for Environmental Rights 'A Review and Strengthening of the Spatial Management of South Africa's Offshore Fisheries' available at https://cer.org.za/wp-content/uploads/2019/07/A-Review-of-Spatial-Management-in-South-Africa's-Offshore-Fisheries_Final-Report-July-2018.pdf, accessed on 23 November 2019.

species.³ Therefore South Africa need to ensure when management plans are developed in accordance with the MLRA that these plans are also developed specifically for marine species.

The MLRA also recognises the rights of all individuals including those in the small-scale fishing sector and whom were subject to historical imbalances. The MLRA has accordingly allocated areas for these individuals to fish and may also declare any related fishing activity in this area as prohibited. These areas are also subject to fishery management plans and regulations have been prescribed for processes as well as procedures for the allocation of small-scale fishing rights such as management of right of access. A ‘consultative advisory forum’ has been provided for by the MLRA which advises the minister on issues regarding fishery management such as TACs of fisheries. However, it was emphasised in chapter three that this forum has not been constituted and whether it will be constituted is questionable. A MLRF has also been established by the MLRA which is regulated by DAFF and one of the aspects which is dealt with is marine resources management.

The MLRA prescribes regulations for foreign and local fishing licences as well as fishing rights and permits. These include that vessels will only be granted a licence once a vessel safety certificate has been obtained. Licences and permits may also be cancelled in accordance with the Act should conditions be breached or provisions of the Act be contravened. In accordance with the regulations, policies have been implemented and are considered when granting fishing rights such as the Policy for the Allocation and Management of Fishing Rights which regulates various fishery sectors such as the hake deep sea trawl and manages these fisheries accordingly. The MLRA regulates fish processing establishments and their fishing rights in an extensive manner, as emphasised in chapter three. Fish processing establishments often engage in IUU fishing activities as pointed out in the *Bengis* case, therefore the provisions and their regulations are significant. These provisions and its regulations are crucial fishery management measures and as emphasised in chapter three these are crucial for deterrence of IUU fishing. The MLRA and the amendment Act also recognises the establishment of MPAs to ensure fishery and fleet management of that region. In accordance with this provision several MPAs has been established in South Africa’s maritime zones. Operation Phakisa has implemented fishery and fleet management measures such as a network of MPAs in South Africa’s EEZ. The MLRA prohibits the use of certain fishing gear including driftnets which

³ K.L. Cochrane ‘Informing effective policies for responsible marine fisheries in South Africa. A report prepared for WWF: South Africa and the Responsible Fisheries Alliance’ available at <https://www.rfalliance.org.za/wp-content/uploads/2017/06/Cochrane-et-al-2015-Final-Report-Informing-effective-policies-for-marine-fisheries-1.pdf>, accessed on 24 November 2019.

were emphasised to result in negative environmental effects and constitutes IUU fishing if used without authorisation. Fishery observers and fishery control officers are also prescribed in the MLRA whom ensure that national fishery legislation is being adhered to and obtains data regarding fishery stocks. DAFF has established a fishery management branch which deals with issues such as fishery research and development as well as marine resources management which is aimed at sustainable utilisation of fisheries. The branch also deals with fishery rights allocation process in accordance with the MLRA. TACs are prescribed by the MLRA to ensure fishery stocks are well managed. The MLRA also provides for the establishment of logbooks. Logbooks contain crucial information regarding marine species including where the fish has been caught and the number of fish which has been caught. The purpose of which is to manage fishing activities. Logbooks are therefore a crucial source in obtaining information regarding statistics including the number of fish of a particular species that is available. This is important for the purposes of conservation and protection of marine species.

In accordance with the Sea Fishery Act⁴ levies are set on marine species. NEMA⁵ establishes the implementation of environmental management plans which considers the needs and well-being of all individuals including equitable access to these resources. An issue which is addressed in these management plans is IUU fishing. NEMA also prescribes environment management inspectors which are similar to fishery control officers, one of the duties which these inspectors carries out is administrative activities by issuing compliance notices for ensuring environmental management enforcement and this is therefore relevant to fishery and fleet management.

The ICM⁶ establishes coastal protection zones and special management areas for the protection of coastal ecosystems. Local seafarers primarily engage in small-scale fishing or commercial fishing within these waters. In chapter one it was recognised that these waters are often unrestricted. Therefore these provisions are crucial for fishery and fleet management, however it was also emphasised that coastal protection zones need to be established in several coastal areas as they have currently only been established in two cities in South Africa and furthermore, no special management areas has been established at all in accordance with the ICM in South Africa. The ICM also recognises that the control and management of coastal areas must be in accordance with the communities' interests. The ICM also establishes a

⁴ Sea Fishery Act 12 of 1988.

⁵ National Environmental Management Act 107 of 1998.

⁶ Integrated Coastal Management Act 24 of 2008.

national coastal committee which promotes the implementation of environmental management plans and programs for activities which may have a negative effect on the environment. Coastal management programs are also established in accordance with the ICM for the sustainable utilisation of coastal resources. Lists of ecosystems and species which are threatened are also established in accordance with the Biodiversity Act⁷. Marine species has been published in the regulations as endangered accordingly, as highlighted in chapter three. Biodiversity management plans are accordingly recognised which may entail a plan regarding a specific species of ecosystem in accordance with this list of ecosystem or species. In this manner the Biodiversity Act ensures fishery management as marine species such as sharks and marine ecosystems are considered when adopting these plans. One of the functions which SANBI performs is managing biodiversity. The Act also establishes a national biodiversity framework program which recognises conservation zones which are of concern and the formulation of protected areas.

Initiatives such as the RFA and Operation Phakisa has been established to ensure fishery and fleet management by adopting measures for sustainable utilisation of marine resources. It must be noted that the RFA has made a significant positive impact in fishery management since its implementation. South Africa also carries out fishery and fleet management in accordance with the international framework highlighted in chapter two. In Thailand's framework UVI systems and buy back systems for vessels which has engaged in IUU fishing have been implemented to further ensure fishery and fleet management. Similarly, South Africa has implemented communication and data systems such as observer devices and AIS systems on vessels as discussed in chapter three to observe and manage fishery and fleet activities. South Africa has not implemented buy back systems. These systems should be implemented to ensure further fishery and fleet management in South Africa's maritime zones.

From the description above it is clear that the framework for fishery and fleet management in South Africa is comprehensive however, there are minor implementation and enforcement shortcomings as highlighted above. These include: the provision in the MLRA pertaining to the constitution of an advisory forum, which has not been constituted. The constitution of this forum will contribute to efficient fishery and fleet management therefore it is significant that this forum be constituted and this provision therefore be enforced and

⁷ Biodiversity Act 10 of 2004.

implemented. The provision concerning coastal protection zones in accordance with the ICM also need to be implemented along South Africa's coastline in a more extensive manner.

(b) Monitoring, control and surveillance (MCS) and traceability

A strong MCS and traceability framework is crucial for successful deterrence of IUU fishing. This will ensure that individuals are apprehended for the commission of IUU fishing actions and minimal individuals engage in IUU fishing activities. However, it is evident from the incidents discussed in chapter three that the MCS and traceability framework in South Africa has some shortcomings. In the Lu Huang Yuan Yu 186 incident these seafarers easily escaped outside South Africa's EEZ and these incidents also portrayed that IUU fishing acts took place due to a lack of MCS and traceability mechanisms.

South Africa along with Thailand is party to the PSMA agreement and has implemented PSMA measures domestically. In Thailand's MCS framework it was highlighted that control measures in accordance with the PSMA has been implemented amongst ports in Thailand. South Africa has also implemented these PSMA measures, these include that South Africa requires all foreign vessels entering South African waters to request a permit and proof of reporting compliance once domestic ports are entered. As highlighted in chapter two, SAMSA carries out further measures in accordance with the PSMA and South Africa also partakes in RFMOs which requires member States to carry out measures in accordance with the PSMA such as SWIOFC. SAMSA carries out inspections at ports which contributes to efficient MCS. As previously emphasised, the figures discussed in chapter two indicate the port measures carried out by SAMSA in accordance with the PSMA are successful in controlling ports. These measures ensure that IUU fishing catch is not able to be offloaded in South Africa's ports. However it must be noted in accordance with Der Horng 569 / Naham No. 4 case discussed under VGFSP in chapter three NGOs had uncovered the true identity of the vessel instead of the South African authorities. It was therefore highlighted that South African authorities need to engage in further investigation when flag States are granted permission to dock at South African ports.

Fishery control officers also carry out inspections at ports in accordance with the MLRA. In addition to the inspection of foreign vessels these inspectors also carry out inspections on all fish carrier vessels, local vessels and fish processing establishments. A list

of the duties carried out by fishery control officers is also prescribed in the MLRA, highlighted in chapter three. These include commanding a vessel to stop and require the master or crew to produce relevant documentation. Several provisions of NEMA has deal with environmental management inspectors and the duties carried out by these inspectors including inspections on vessels and issuing of compliance notices to individuals who haven't complied with the law or the condition of a permit. It was highlighted that these duties are similar to fishery control officers in accordance with the MLRA and fishery control officers are also environmental management inspectors which contribute to deterrence of IUU fishing. The issue regarding these officers, as identified by the FAO, is that these officers issue a report of their findings but do not keep track of the data that has been obtained. This is evident from an inspection of the databases. The FAO further asserts that 'the arrangement of fishery law enforcement officers on board fishing vessels achieves minimum in the manner of obtaining about crucial long-term changes in the way in which vessels operate'.⁸

As emphasised in the previous chapter, the RO provides for seafarers to draw up a logbook. Logbooks may also contribute to the deterrence of IUU fishing as fishing will remain legal, regulated and reported as seafarers must abide by keeping a logbook by law and report their catch and activities. Seafarers will be more reluctant to engage in IUU fishing activities as misreporting their catches, failing to draw up a logbook and catching fish beyond the allocated quota will result in fines. Contravention will also result in an additional fine if the act of IUU fishing was also committed. Thailand has made use of electronic reporting systems and electronic monitoring systems for fishing vessels. E-logbooks form part of electronic reporting systems which contain data regarding the total catch of the vessel and biological details regarding the fishes that has been caught.⁹ E-logbooks make use of technology to fulfil traceability requirements and are much more effective as regular logbooks has a greater chance of being subjected to error, poor data management, poor reliability and are more time consuming.¹⁰

South Africa has made provision for the drawing up of logbooks in the MLRA. In terms of section 51 a fishery control officer, without a warrant, may require logbooks to be produced

⁸ FAO 'The status of integrated fisheries monitoring in South Africa' available at <http://www.fao.org/3/x3900e/x3900e08.htm>, accessed on 5 October 2019.

⁹ IOTC 'Fisheries data collection of Thai oversea fishing fleet' available at <https://www.iotc.org/documents/WPDCS/14/17-THA>, accessed on 9 October 2019.

¹⁰ OLRAC SPS 'Establishing an electronic data management model for South African fisheries' available at <http://www.rfalliance.org.za/wp-content/uploads/2017/06/Lallemand-2013-An-electronic-data-management-model-for-SA-fisheries.pdf>, accessed on 9 October 2019.

and make an entry in a vessels logbook and may seize a vessels logbook. Furthermore, according to section 60, no person may destroy evidence on board including a logbook to avoid the seizure thereof and in terms of section 77, one of the powers of the Minister is regulating the requirement of statistical information regarding fishery including fishing logbooks. As of 2016 a proposal for the implementation of e-logbooks by the RFA was drawn up to ‘streamline the recording, transfer and capturing of fishing data’.¹¹ Although South Africa has emphasised the importance for the reporting of fishing data that is accurate and collected timeously and has made provision for fishing logbooks, the issue that subsists is the need for correct implementation systems to be in force such as e-logbooks to meet these targets. The implementation of e-logbooks and similar systems are crucial to ensure MCS and traceability requirements through efficient data control. E-logbooks also effectively ensure seafarers do not catch fish beyond their allocated quota or species of fisheries which are protected and regulated. Hence, this contributes to the deterrence of IUU fishing.

In accordance with the MLRA fishery observers are allocated for the purpose of carrying out MCS activities on board. It was highlighted that these observers also obtain data regarding fishery stocks and therefore in addition to MCS activities also carry out fishery and fleet management activities. Observation devices are made provision for in terms of the MLRA. These are devices which are installed onto fishing vessels for the purpose of ascertaining ‘information regarding the position and fishing activities of the vessel’.¹² According to the Act, observation devices may be selected which can be manual or automatic devices for obtaining evidence. In this manner the MLRA provides for installing devices similar to e-logbooks. South Africa need to ensure the procurement of the development and implementation of such devices on board. The allocation of fishing observers need to be ensured on all licenced vessels and regulation must be made for these observers to carry out their MCS duties effectively. A challenge in South Africa concerning observation programs, which was highlighted by the FAO, is the management of the large extent of technical and administrative functions that is required of an efficient fishery observer program.¹³ Therefore, legal, institutional and financial frameworks of fishery observer programs need to be drawn up in an organised manner. Employment and training of fishery observers must always take place efficiently. Fishery

¹¹ Chris Bothma ‘Electronic fishing logbooks’ available at http://www.rfalliance.org.za/wp-content/uploads/2017/06/Draft_IJ-Electronic-Report-Proposal-09-09-2016-2.pdf, accessed on 5 October 2019.

¹² Marine Living Resources Act 18 of 1998.

¹³ FAO ‘The status of integrated fisheries monitoring in South Africa’ available at <http://www.fao.org/3/x3900e/x3900e08.htm>, accessed on 5 October 2019.

masters must also be aware of their obligations to observers and data must be observed, recorded and reported efficiently.¹⁴ Furthermore, regulation also need to be prescribed for administrative requirements for fisheries observer programs in an organised manner.

DAFFs fishery management branch encourages MCS compliance. Similar to Thailand, South Africa has adopted VMS and FPVs which carry out MCS activities at sea. DAFF provides for FPVs which patrol South Africa's maritime zones and carry out investigations at sea. It was emphasised that FPVs are crucial MCS mechanisms in South Africa's maritime zones which ensures compliance with the MLRA however, there are few FPVs which attend to surveillance duties at sea. It was also pointed out that law departments, enforcement agencies and government departments need to intervene to ensure compliance and sustainability of resources in South Africa's oceans as the Chief Directorates mandate for MCS in accordance with the MLRA is limited. A DAFF briefing session on international instruments recognised that South Africa has a long history of good MSC capacity, however IUU fishing remains a problem.¹⁵

The MCS initiative, Project Biro if timeously completed will mark the introduction of three new IPV's which will make a significant difference in the deterrence of IUU fishing as activities by local seafarers will be managed however. However, these vessels will only operate in inshore waters. While this will provide efficient MCS for activities in coastal and territorial waters of fishing vessels including local fishing vessels, OPVs need to be developed for the protection of the EEZ which is vulnerable to IUU fishing due to its vast size. The issue with Project Biro which was highlighted is whether the project will be timeously completed is questionable as the project has often been delayed. A VMS highlighted in chapter three is the ORBCOMM VMS which provides monitoring of illegal vessels and provides AIS data services to vessels which operate legally in South Africa's maritime zones. The ZAcube-2 monitoring system also carries out MCS activities in South Africa's maritime zones. The system carries an AIS and tracks the movement of ships along the South African coastline. AIS systems are meant to be kept on, however, many illegal seafarers turn off their AIS systems. In the Lu Huang Yuan Yu 186 incident, highlighted in chapter three, illegal seafarers had turned off their

¹⁴ FAO 'Guidelines for developing an at-sea fishery observer programme' available at <http://www.fao.org/3/a-y4390e.pdf>, accessed on 9 October 2019.

¹⁵ DAFF 'DAFF briefing session: International Instruments' available at <https://static.pmg.org.za/141104daff.pdf>, accessed on 22 July 2020.

AIS systems and eight of these nine illegal vessels had not been apprehended as they managed to escape after being chased.

MCS and traceability requires equipment and resources to implement MCS systems and carry out research. The FAO provided MCS measures which will prove to be a significant difference in the deterrence of IUU fishing and other illegal activities at sea. These measures include observation satellites that provide MCS throughout South African waters including the waters of Prince Edward Islands. Therefore, regular sea patrols around the island's waters will not be necessary. Flight surveillance systems and coastal detection systems will also provide MCS throughout South Africa's maritime zones including the EEZ. Thus, these systems provide MCS for the coastline and the shore and may then be used to apprehend suspicious vessels such as illegal foreign vessels parading as though they are carrying out innocent passage in South Africa's maritime zones.¹⁶ Transshipping surveillance need to be made provision for as many IUU fisheries end up mixed up with legal catches. The Abalobi mobile application provides a system which is able to trace where and how a fisheries item has been caught. The RO has made provision for the establishment of such systems and accordingly electronic systems has been developed in Thailand. Capacity building and training is carried out by DAFFs fishery management branch. In accordance with Thailand's MCS and traceability requirements a significant part of this framework was the training of inspectors and officers who carry out MCS and traceability requirements at sea.

In the previous chapter it was highlighted that Senegal's weak MCS systems is a crucial factor which significantly hinders the deterrence of IUU fishing within the States maritime zones. MCS is not implemented forcefully and mechanisms are not provided by Senegal's government for effective MCS. MCS, in the South African framework, was also highlighted as one of the aspects that needed improvement. In South Africa it is clear that the MCS framework is comprehensive and more efficient than Senegal as mechanisms and work to improve South Africa's MCS systems at sea is being done, from the Project Biro and ZAcube-2 monitoring system however, there are evidently issues present in enforcement, compliance and implementation of MSC systems.

¹⁶ *Ibid.*

(c) Adequate law enforcement

Law enforcement provisions and regulations for IUU fishing activities are provided by South Africa's domestic framework in an extensive manner. Penalties and sanctions are prescribed by environmental legislation for contravention of its provisions, discussed in chapter three. The applicability of these provisions to the MLRA and IUU fishing, especially section 34 of NEMA, was also portrayed in chapter three.

In accordance with the MLRA Thailand was subject to atrocities in the fishing sector prior to reformation of the fisheries framework and accordingly has reformed the framework extensively to deal with these atrocities such as forced labour in the fishing industry by adopting various regulations and legislation, highlighted in chapter four. Similar, prior to democracy many South Africans have faced imbalances, to remedy this effect in the fishing industry the Marine Living Resources Amendment Act and the small-scale fishing policy was adopted, discussed in chapter three. Customary rights to fish and equitable access to fishing is now recognised. The MLRA is also aimed at achieving equity in the fishing industry. The provisions contained in these legislation and policies are relevant as certain considerations must be made whether an action constitutes IUU fishing such as exercising a customary right to fish in a MPA.

In accordance with the MLRA, it was emphasised that the court judicial process contained in the MLRA is extensive. Several provisions and regulations of the Act provide for these processes. As highlighted, the MLRA prescribes several measures for fishery control officers. These include fishery control officers may without a warrant command any vessel to stop in South Africa's maritime zones and order the master of a vessel to stop carrying out fishing activities. These enforcement measures are crucial for deterrence of IUU fishing however it is emphasised in this dissertation that there are a small number of fishery control officers whom are able to carry out their duties in accordance with the MLRA. It was also emphasised that a substantial number of fishery control officers must be available to carry out duties in accordance with the MLRA especially since South Africa has a large EEZ and seafarers will not be able to get away easily with contravening the Act including engaging in IUU fishing activities. The MLRA also provides for seizure and forfeiture orders. Perishable items such as marine species may be returned to the individual who it was seized from upon obtaining security equivalent to the item. When IUU fishing activities take place marine species may be caught by illegal fishing gear and sold. The MLRA states that should an individual

carry out an offence in contravention of the Act then in addition to the penalty items such as the fishing gear, marine species and money obtained as result of selling such species be forfeited to the State. Exemption from the MLRA is also made provision for, these provisions were highlighted as significant to IUU fishing as certain individuals or establishments may be exempted from certain provisions of the Act which would otherwise amount to a contravention of the Act and may amount to the act of IUU fishing. It must be noted however that the regulations state conditions to this exemption including: should aquatic species be subject to endangerment then such fishing operation being granted exemption may be suspended or restrictions may be imposed and furthermore, that the exemptions must be monitored to ensure does not lead to increased IUU fishing.

The fines payable due to contraventions of the MLRA was emphasised as insignificant in comparison to the actual damage that act of IUU fishing may cause. This was evident in the incidents discussed in chapter three. The MLRA states that any person who contravenes a provision of the Act: ‘shall be guilty of an offence and liable on conviction to a fine not exceeding R2 million, or imprisonment for a period not exceeding five years’.¹⁷ The MLRA also provides for penalties for a contravention of a provision of an international conservation and management measure, these individuals: ‘shall be guilty of an offence and liable on conviction to a fine not exceeding R3 million’.¹⁸ Offences and penalties are also prescribed by the Sea Fishery Act. Should any individual contravene any provision of the Act including the provisions discussed as relevant to IUU fishing in chapter three such as importing and exporting of live fish without a permit then such individual ‘shall be guilty of an offence and be liable on conviction to a fine not exceeding R15 000 or to imprisonment for a period not exceeding five years or to both a fine and imprisonment’.¹⁹ NEMA also provides for seizure of objects such as vessels or endangered species which have been exported or re-exported. These provisions and their relevance to IUU fishing was portrayed in the *Bengis* case where an endangered marine species, the West Coast Rock Lobster was exported illegally.

In accordance with the ROs provisions on exporting activities, requires submission of catch certificates or relevant documents which serve as evidence that the catch was obtained legally. For importing activities permission need to be obtained from relevant authorities. Failure to present this documentation will result in a penalty of ‘five times the value of the

¹⁷ Marine Living Resources Act 18 of 1998.

¹⁸ *Ibid.*

¹⁹ Sea Fishery Act 12 of 1988.

animals imported, exported or transited'.²⁰ The MLRA prescribes regulations regarding the import and export of fisheries products. The importing and exporting of fisheries are categorised under 'related activities' and should contravention take place; penalties are expressively prescribed in the MLRA.

NEMA deals with private prosecution where there is a contravention of a duty and this contravention is in the interest of all citizens or in the interest of preservation of the environment. NEMA also provides duties of environmental management inspectors. It was highlighted that environmental management inspectors and fishery control officers carry out similar duties and fishery control officers are environmental management inspectors. NEMAs provisions on the duty of care and remediation of environmental damage is an important provision pertaining to IUU fishing as these individuals whom engage in IUU fishing activities cause significant environmental degradation especially when illegal fishing gear is used. This provision is used as a penalty in accordance with NEMA and such individual must take measures to stop, avoid or minimise such degradation from recurring in the future. This penalty is further emphasised in section 34 of NEMA. The ECA also orders individuals who cause detrimental effects to the environment to rehabilitate these detrimental effects. The ICM also proclaims the application of NEMAs provision on the 'duty of care' and remediation of environmental damage' to expand to the coastal environment.

It was emphasised that the offences in section 43(2), section 45, section 47 and section 58(2) and the penalties imposed for contravention of the provisions of the MLRA in section 58 of the MLRA are subject to additional proceedings and penalties in section 34 of NEMA. Section 34 of NEMA evidently prescribed comprehensive additional proceedings. These include that the court may also order the award of damages equivalent to the monetary advantage gained or about to be gained by the convicted individual and certain remedial measures may be taken by the convicted person. Whilst these measures are present, it is however, evident from the incidents discussed that fines imposed during the court process are insignificant compared to actual value of the damage that act of IUU fishing may cause.

The RO stipulates in many provisions, if marine species were obtained during the commission of the offence then the offender is fined up to five times more than the value of those marine species or the fine as stipulated. The value of marine fisheries as well as the damage caused in accordance with the *Bengis* case was exceedingly higher than the fines

²⁰ *Ibid.*

imposed in accordance with the MLRA. Therefore, South Africa should implement similar fines to Thailand. Seafarers will be more reluctant to engage in IUU fishing activities as the fines are higher than the actual value of marine species obtained. Thereby contributing to successful deterrence of IUU fishing and preservation of marine resources. In accordance with the RO criminal sanctions are imposed for the purpose of ensuring compliance, contraventions from occurring and preventing offenders from gaining benefits as a result of their illegal activities.²¹ In the RO, a number of different sanctions are imposed for different offences.

In addition to chapter four, further offences and penalties in the RO include offences which could be related to IUU fishing such as the use of a Stateless vessel. The commission of this offence is fined between 10 000 baht and 100 000 baht (approximately R5000–R50 000) or a fine three times the amount of which the marine species caught as a result of the use of that vessel. South Africa should also implement additional fines in circumstances where Stateless vessels are used to commit offences. This would contribute to effective deterrence. The RO also imposes an additional fine for vessels of a certain size are used to commit certain offences. This fine is in accordance with the size of the vessel. The larger the vessel, the larger the fish catch and therefore the fine is higher. These vessels are subject to a fine up to the value of 30 000 000 baht (R15 000 000) or five times the marine resources obtained from the operation.²² South Africa should implement additional fines in relation to the size of the vessel as these measures may ensure larger vessels cannot operate in IUU fishing activities. Hence, this contributes to successful deterrence of IUU fishing.

Furthermore, the RO provides fines that are imposed in circumstances where endangered marine species including mammal species are caught. The penalty is a fine of between 300 000 baht and 3 000 000 baht (R150 000–R1500 000) or five times the marine species caught or brought on the vessel which was used to commit the offence.²³ The preservation of threatened marine species is crucial for survival and therefore, South Africa should impose similar regulations and greater fines when the IUU fishing catch extends to these endangered species. This will ensure the preservation of threatened species and will aid the deterrence of IUU fishing.

In terms of the RO all processors of marine products must report or prepare evidence relating to where their marine products have been obtained from. Reporting of incorrect

²¹ *Ibid.*

²² *Ibid.*

²³ *Ibid.*

information or failing to supply such evidence will result in a penalty of 100 000 baht and 2 000 000 baht (R50 000–R1 000 000). Businesses which deal with fishery products, buyers of fisheries products and the owners of fishing ports are required to prepare documentation or marine catch purchasing documents. The failure to provide such documentation or incorrect data will result in a penalty of 10 000 baht and 1 000 000 baht (R5000–R500 000). As evident in the *Bengis* case fishery processing establishments has engaged in IUU fishing activities. Fishery processing establishments are also well-regulated by the MLRA in a similar manner to the RO and the act of IUU fishing is considered in these regulations including exemptions, as highlighted in chapter three. These provisions and regulations are significant contributors to deterrence of IUU fishing however, the fines imposed as a result of contravention of these regulations and provisions must be reconsidered.

The court process including penalties and sanctions in accordance with the domestic framework are comprehensive however, it must be noted in several incidents of IUU fishing, some discussed in chapter three, these seafarers who engage in IUU fishing often get away with this act and are not apprehended. Furthermore, according to the OECD ‘no repayment of excess catch has occurred in relation to identified non-compliance by South Africa’.²⁴ It is therefore crucial that enforcement and implementation of the provisions, regulations and international measures of South Africa’s framework for deterrence of IUU fishing must take place and higher fines be imposed as a result of IUU fishing.

(d) International cooperation

In accordance with the international framework discussed in chapter two there are several instruments which are applicable to South Africa and contribute to deterrence of IUU fishing in South Africa’s maritime zones. The obligations carried out by South Africa and the role which South Africa plays in taking these instruments forward was highlighted in this chapter. These include: in Agenda 21 for sustainable development's obligations has been adhered to by South Africa as the State has implemented an Agenda 21 implementation plan nationally. Agenda 2030s SDGs have been aligned in accordance with the NDP including SDG 14.4 and

²⁴ B Hutniczak, C Delpuech *Combating Illegal, Unreported and Unregulated Fishing Where countries stand and where efforts should concentrate in the future* OECD (2017) available at [https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/FI\(2017\)16/FINAL&docLanguage=En](https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/FI(2017)16/FINAL&docLanguage=En), accessed on 27 July 2020.

South Africa has not prescribed tax incentives or subsidies for its fisheries and therefore is carrying out this obligation in accordance with UNCTAD. South Africa has minimal responsibilities which are not being carried out in accordance with the international framework. This is evident from the discussion in chapter three. However, it was highlighted that South Africa need to address challenges as a member State in accordance with these instruments and as South Africa is labelled as an influential State in accordance with several global instruments and therefore must support other nations in aspects such as sharing of resources.

For the global framework to operate at full capacity and achieve their aims successfully, there would be several challenges that need to be addressed especially where states do not fulfil their commitments and responsibilities in ensuring cooperation. For example, Agenda 21 has identified a key challenge that opposes effective implementation is the lack of commitment by heads of states in ensuring sustainable development. Some other main challenges outlined in the international framework include lack of collaboration, scientific research, engaging with the private sector, participation, feedback, reporting of IUU fishing information, encouraging support from stakeholders and organisations including NGOs, implementation of policy, incorporation of measures into domestic laws, adherence to regulations and transparency. Successful international cooperation is only achieved when commitments and responsibilities required of member States is adhered to and fulfilled. Furthermore, States must adopt necessary policies and regulations within their domestic legislation to ensure international cooperation.²⁵ Several instruments are not binding, therefore the initiative lies within States to adhere, implement the principles of the instruments within domestic frameworks, prescribing regulations and imposing consequences for non-compliance. According to Cochrane, considering international cooperation by South Africa in accordance with applicable global instruments, practice is far ahead of the policy requirements.

It was emphasised that South Africa's domestic framework is in line with international developments. In accordance with domestic legislative provisions, international commitments must be adhered to. The MLRA considers international obligations of the government when the Minister or an organ of State exercises a function in accordance with the Act.²⁶ The Minister may also prescribe regulations that are in accordance with international law and may publish international measures concerning marine resources in the Gazette. DAFF has also taken some

²⁵ Sea Shepherd 'About IUU fishing' available at <https://seashepherd.org/campaigns/iuu-fishing/about-iuu-fishing/>, accessed on 9 October 2019.

²⁶ *Ibid.*

significant measures to enforce the MLRA such as implementing a fishery management branch dealing with issues such as international relations and obligations, highlighted in chapter three. The MLRA has also incorporated and reflects the principles of international instruments such as the PSMA and The Code, however, according to Cochrane there is a need for improvement in the MLRA in accordance with international cooperation.²⁷ Cochrane has also stated that considering the challenge of international cooperation the MLRA should be extended to include provisions embodying global cooperation in an appropriate manner taking into consideration existing global bodies, possible changes in existing bodies and the possible constitution of new bodies.²⁸ The Biodiversity Act also considers the international framework. The Act is aimed at implementing international conventions and recognises that international ratified agreements must be complied with in order to encourage cooperative governance. The national biodiversity framework program must be in accordance with the international framework and encourages regional cooperation in managing biodiversity. Biodiversity management plans considers applicable international conventions such as CMS. A further flaw in South Africa according to the OECD is that ‘several RFMOs recognise the shortcomings of South Africa’s lack of clear follow-up procedures and have stated the need for improvement.’²⁹

It is clear from the analysis in chapter two that South Africa has engaged on a frequent basis with other member States to address any difficulties and challenges in obtaining the instruments goals. South Africa has voiced their opinions, engaged and has held several meetings of international instruments. This is crucial to ensure international cooperation, it must therefore be ensured that this standard is upheld at every meeting of a global instrument to which South Africa is a member State or where it is otherwise applicable to South Africa, their input and feedback should be voiced. However, if it is not possible for South Africa to partake at all meetings of global instruments, South Africa should at least give feedback in another productive manner such as submission of written reports and other documentation on a frequent basis. The repercussions of not attending meetings is that it takes a toll on member

²⁷ K.L Cochrane ‘Informing effective policies for responsible marine fisheries in South Africa. A report prepared for WWF: South Africa and the Responsible Fisheries Alliance’ available at <https://www.rfalliance.org.za/wp-content/uploads/2017/06/Cochrane-et-al-2015-Final-Report-Informing-effective-policies-for-marine-fisheries-1.pdf>, accessed on 24 November 2019.

²⁸ *Ibid.*

²⁹ B Hutniczak, C Delpuech *Combating Illegal, Unreported and Unregulated Fishing Where countries stand and where efforts should concentrate in the future* OECD (2017) available at [https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/FI\(2017\)16/FINAL&docLanguage=En](https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/FI(2017)16/FINAL&docLanguage=En), accessed on 27 July 2020.

States in discussions, and the assignment of fishing rights. Non-compliance can have extreme negative consequences for the nation and the fishing industry.³⁰

Several instruments have identified the challenge of ensuring the sharing of resources and information amongst member States. It was highlighted that South Africa as an influential member State of several instruments must support other States by sharing of resources. According to UNCTAD a challenge in sharing of resources and information is differences in enforcement procedures amongst States.³¹ International cooperation also requires South Africa to encourage third party entities and stakeholders to participate in processes of these organisations and observe their recommendations and standards. This is made possible by providing awareness to these entities and explaining the benefits of engaging with these instruments. An example is Woolworth's participation with the MSC to obtain the goal of sustainable fisheries. Another example, in accordance with Agenda 2030s SDGs, stakeholders and entities should implement practices in line with the SDGs and therefore contribute to successfully achieve these goals. To explain further, in accordance with SDG eight³² and fourteen³³ respectively, entities and stakeholders should provide equal opportunities for all people within the workplace. Furthermore, fishing entities should provide regulatory measures and implement scientific management plans in their activities in preventing the harvest of IUU fisheries, overfishing and destructive fishing.³⁴ The South African government should be more productive in the implementation of targets so that they are achieved by certain dates and are in line with global instruments goals such as targets in meeting the SDGs and gaining a number of stakeholder support by a certain date and targets such as stock rebuilding targets of marine species including the SBT species. Effective provision need to be made to create awareness of

³⁰ South African government 'Minister Senzeni Zokwana on South African fisheries' available at <https://www.gov.za/speeches/briefing-fisheries-9-apr-2019-0000>, accessed on 2 October 2019.

³¹ United Nations Conference on Trade and Development 'Enhancing international cooperation in the investigation of cross-border competition cases: Tools and procedures' available at https://unctad.org/meetings/en/SessionalDocuments/ciclpd44_en.pdf, accessed on 10 January 2020.

³² UNDP 'Goal 8: Decent work and economic growth' available at <https://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-8-decent-work-and-economic-growth.html>, accessed on 12 October 2019. 'The SDGs promote sustained economic growth, higher levels of productivity and technological innovation. Encouraging entrepreneurship and job creation are key to this, as are effective measures to eradicate forced labour, slavery and human trafficking. With these targets in mind, the goal is to achieve full and productive employment, and decent work, for all women and men by 2030'.

³³ UNDP 'Goal 14: Life Below Water' available at <https://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-14-life-below-water.html>, accessed on 12 October 2019. 'The SDGs aim to sustainably manage and protect marine and coastal ecosystems from pollution, as well as address the impacts of ocean acidification. Enhancing conservation and the sustainable use of ocean-based resources through international law will also help mitigate some of the challenges facing our oceans'.

³⁴ United Nations 'Sustainable Development Goals' available at <https://sustainabledevelopment.un.org/?menu=1300>, accessed on 8 October 2019.

these instruments and their measures. It was also highlighted that South Africa need to ratify the Lomé Charter to enforce the measures of the charter.

The reporting of progress and achievements should be done transparently and on a timeous basis in accordance with the nature of the instrument's goals. A list of threatened marine species in accordance with the Biodiversity Act, discussed above, has been published in 2017 and DAFF has written reports regarding the state of fisheries in recent years; however, this need to be done on a more frequent basis and reported to the instruments who require such information. Information that should be updated in these reports frequently should include IUU fishing vessel statistics, MCS vessel statistics and recent measures, projects and statistics on their progress. Projects should also be implemented more frequently at a domestic or regional level to achieve progress in line with these instruments. For example, as highlighted in chapter two, the Fish for Good project was implemented to meet the MSC goals. Policy and plans of action by NGOs and other local organisations should also be encouraged and reviewed.

5.3 Final Remarks

In the previous chapter it was highlighted that Senegal's fishing legislation has failed due to a lack of support and enforcement from the fishing industry coupled with a number of other factors such as lack of control by the government and lack of communication to the public as no website is made available. It is clear that South Africa's legislative framework is much more comprehensive and efficient than Senegal's. DAFF also makes use of a website to communicate to the public and law enforcement officials have been allocated to carry out legislative provisions. The issues which are present in Senegal's legislative framework are therefore not present in South Africa's framework. Another factor which is similar to Senegal is that the fishing industry does not wholly comply with the MLRA as in many cases and incidents such as the *Bengis* case, the MLRA's provisions were contravened.

According to the AU, South Africa has a comprehensive legal framework for fisheries³⁵ and this notion is supported in this analysis. The findings from this analysis in accordance with

³⁵ AU- IBAR *Status of Monitoring, Control and Surveillance Systems in Southern Africa Strengthening National and Regional Capacities for Combating Illegal, Unreported and Unregulated Fishing* AU-IBAR (2016) available at <http://www.au-ibar.org/component/jdownloads/finish/5-gi/2779-status-of-monitoring-control-and-surveillance-systems-in-southern-africa-strengthening-national-and-regional-capacities-for-combating-illegal-unreported-and-unregulated-fishing>, accessed on 21 July 2020.

the four factors indicate that South Africa has a strong fishery and fleet management framework which is similar to Thailand's with minimal enforcement shortcomings. The MCS and traceability framework indicated that whilst the necessary measures, regulations and provisions are present enforcement and implementation is an issue. For example the provisions and regulations concerning fishery control officers are comprehensive however there are minimal officers available to carry out their duties in accordance with the framework at sea. Another example which is clear from incidents of IUU fishing discussed in this dissertation is that IUU seafarers easily get away with the act of IUU fishing without being apprehended. Additional measures such as e-logbooks were also suggested to improve the MCS and traceability framework. In relation to the apprehension issue is that as a result the court process, sanctions and penalties are not faced by these offenders. South Africa has a very comprehensive law enforcement framework however the framework cannot be implemented if these offenders are not being caught. An ongoing issue highlighted in this dissertation is that the fines imposed are insignificant in comparison to the damage that act of IUU fishing may cause and therefore South Africa should adopt more severe fines similar to Thailand. It is clear from chapter two that the international framework applicable to South Africa is extensive and South Africa has adopted these international measures domestically. South Africa has also carried out responsibilities such as participation however it was highlighted that South Africa must address the challenges faced by these instruments and as an influential State in accordance with several instruments must support other States. The AU has also stated that South Africa's regional cooperation is good.³⁶

From the description above it can be seen that South Africa's framework is similar to Thailand's however as indicated some issues persist such as fines. The main issue which is evident from the analysis of the South African framework is that although comprehensive, there is a lack of enforcement, implementation and compliance of the framework. Kidd has recognised that there is 'significant room for improvement' for the enforcement of environmental legislative provisions³⁷ and Glazewski has stated that compliance with the MLRA need to be improved.³⁸ Therefore, it can be concluded that South Africa has a comprehensive framework for the deterrence of IUU fishing however, the challenge of

³⁶ *Ibid.*

³⁷ Michael Kidd *Environmental Law* (2011) 143.

³⁸ Jan Glazewski *Environmental Law in South Africa: Second edition* (2005) 161.

compliance, enforcement and implementation of the framework is an issue which need to be confronted.

6. BIBLIOGRAPHY

6.1 PRIMARY SOURCES

(a) Legislation

(i) South Africa

1. Environment Conservation Act 73 of 1989 was amended by National Environmental Management: Waste Act 59 of 2008.
2. Integrated Coastal Management Act 24 of 2008.
3. Marine Living Resources Act 18 of 1998 was amended by the Marine Living Resources Amendment Act 5 of 2014.
4. Marine Living Resources Amendment Act 5 of 2014.
5. Maritime Zones Act 15 of 1994.
6. National Environmental Management Act 107 of 1998 was amended by National Environmental Management Laws Amendment Act 25 of 2014.
7. National Environmental Management: Biodiversity Act 10 of 2004.
8. National Environmental Management: Protected Areas Act 57 of 2003.
9. Sea Fishery Act 12 of 1988 was amended by Marine Living Resources Act 18 of 1998.

(ii) Thailand

1. Fisheries Act of 1947 was amended by Royal Ordinance on Fisheries, B.E. 2558 of 2015
2. Labour Protection Amendment Act B.E. 2562 of 2019.
3. Royal Ordinance Concerning the Management of Employment of Foreign Workers B.E.2560 of 2017.
4. Royal Ordinance on Thai Vessels, B.E. 2561 of 2018.
5. Thai Vessels Act B.E. 2481 of 1938.

(iii) Senegal

1. Code of fisheries of Senegal Act 18 of 2015.
2. Fisheries Act of 1998.

(iv) United States

1. United States Lacey Act of 1900 was amended by Lacey Act Amendments of 2008.

(b) International treaties and conventions

1. Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, 24 November 1993, 2221 UNTS 91, 14 April 2003.
2. Commission for the Conservation of Southern Bluefin Tuna, 10 May 1993, 1819 UNTS 360, 20 May 1994.
3. Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 4 August 1995, 2167 UNTS 3, 4 December 1995.
4. Convention on International Trade in Endangered Species of Wild Fauna and Flora, 3 March 1973, 993 UNTS 243.
5. Convention on the Conservation of Antarctic Marine Living Resources, 20 May 1980, 19 ILM 841, 1329 UNTS 48, 7 April 1982.
6. Convention on the Conservation of Migratory Species of Wild Animals, 23 June 1979, 19 ILM 15,1651 UNTS 333, 1 November 1983.
7. Indian Ocean Tuna Commission, 25 November 1993, 1927 UNTS 329, 27 March 1996.
8. International Convention for the Conservation of Atlantic Tunas, 14 May 1966, 673 UNTS 63, 21 March 1969.
9. Johannesburg Declaration on Sustainable Development, 4 September 2000, UN Doc. A/Conf.199/20, 2002.
10. South East Atlantic Fisheries Organisation, 20 April 2001, 41 ILM 257, 13 April 2003.
11. Treaty of the Southern African Development Community, 17 August 1992, 32 ILM 116, 5 October 1992.

12. United Nations Convention on the Law of the Sea, 10 December 1982, 3 UNTS 3, 21 ILM 1261, 16 November 1994.

(c) Constitution

1. Constitution of the Republic of South Africa, 1996 (1996 Constitution).

(d) Case law

1. *Bato Star Fishing (Pty) Ltd v Minister of Environmental Affairs and Tourism* 2004 (4) SA 490 (CC).
2. *Bengis and Others v Government of South Africa and Others* 2016 (1) JDR 1608 (WCC).
3. *Dyer Eiland Visserye (Pty) Ltd v Minister of Agriculture, Forestry and Fisheries and Another* 2018 SA 162 (WCHC).
4. *Gongquose and others v Minister of Agriculture, Forestry and Fisheries and others* 2018 SA 87 (SCA).
5. *Hichange Investments (Pty) Ltd v Cape Produce Co (Pty) Ltd t/a Pelts Products and Others* 2001 (HC).
6. *Laingville Fisheries (Pty) Ltd v The Minister of Environmental Affairs and Tourism* 2008 SA 28 (WCHC).
7. *MEC for Agriculture, Conservation, Environment & Land Affairs v Sasol Oil (Pty) Ltd* 2005 (2) SA 17 (SCA).
8. *Minister of Environmental Affairs and Tourism and others v Phambili Fisheries (Pty) Ltd and another* 2003 (2) SA 616 (SCA).
9. *Minister of Public Works v Kyalami Ridge Environmental Association* 2001 (3) SA 652 (CC).
10. *The Minister of Water and Environmental Affairs v Really Useful Investments* 2018 (1) SA 156 (SCA).
11. *United States v Bengis* 2004 (SDNY).
12. *Uzani Environmental Advocacy CC v BP Southern Africa (Pty) Ltd* 2019 (5) SA 275 (GP).

13. *West Coast Rock Lobster Association v The Minister of Environmental Affairs and Tourism* 2010 SA 487 (SCA).

WWF South Africa v Minister of Agriculture, Forestry and Fisheries and Others 2018 SA 889 (WCHC).

(e) Government Gazette

1. GN 694 of GG 26430, 04/06/2004.
2. GN 529 of GG 32449, 31/07/2009.
3. GN 1133 of GG 39417, 16/11/2015.
4. GN 1138 of GG 39417, 16/11/2015.
5. GN 1170 of GG 39451, 25/11/2015.
6. GN 508 of GG 38871, 12/06/2015.
7. GN 229 of GG 39790, 08/03/2016.
8. GN 623 of GG 40875, 30/05/2017.
9. GN 558 of GG 40906, 09/06/2017.
10. GN 1395 of GG 41321, 15/12/2017.
11. GN 718 of GG 41781, 20/07/2018.
12. GN 321 of GG 43110, 20/03/2020.

(f) Reports

1. AU- IBAR *Status of Monitoring, Control and Surveillance Systems in Southern Africa Strengthening National and Regional Capacities for Combating Illegal, Unreported and Unregulated Fishing* AU-IBAR (2016) available at <http://www.au-ibar.org/component/jdownloads/finish/5-gi/2779-status-of-monitoring-control-and-surveillance-systems-in-southern-africa-strengthening-national-and-regional-capacities-for-combating-illegal-unreported-and-unregulated-fishing>, accessed on 21 July 2020.
2. B Hutniczak, C Delpuech *Combatting Illegal, Unreported and Unregulated Fishing Where countries stand and where efforts should concentrate in the future* OECD (2017) available at [https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/FI\(2017\)16/FINAL&docLanguage=En](https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/FI(2017)16/FINAL&docLanguage=En), accessed on 27 July 2020.

3. CCSBT *Quality Assurance Review On behalf of the Commission for the Conservation of Southern Bluefin Tuna* (1810/05) South Africa: QAR– Fishing Entity of South Africa (2018) available at https://www.ccsbt.org/en/system/files/CC13_05_QAR_South_Africa_Final_Report_Sept_2018.pdf, accessed on 21 July 2020.
4. CCSBT *Report of the Twenty Sixth Annual Meeting of the Commission* (No 26) Cape Town: CCSBT (2019) available at https://www.ccsbt.org/sites/default/files/userfiles/file/docs_english/meetings/meeting_reports/ccsbt_26/report_of_CCSBT26.pdf, accessed on 12 July 2020.
5. CCSBT *South African National Report to the Extended Scientific Committee of the Commission for the Conservation of Southern Bluefin Tuna (ESC/1809)* South Africa: SBT Fisheries (2018) available at https://www.ccsbt.org/en/system/files/ESC23_SBTFisheries_ZA.pdf, accessed on 19 July 2020.
6. Commission for the Conservation of Antarctic Marine Living Resources *Report of the Thirty-Eighth Meeting of the Commission* (No 38) Australia: CCAMLR (2019) available at https://www.ccamlr.org/en/system/files/e-cc-38_1.pdf, accessed on 8 July 2020.
7. Committee on Fisheries *Proposal for a new Sub-Committee on Fisheries Management* Rome: COFI (2020) available at <http://www.fao.org/3/ca7688en/ca7688en.pdf>, accessed on 10 July 2020.
8. D Belhabib ‘*West Africa: Illegal fishing, the black hole in the seas – Samudra report*’ (No. 77) West Africa: Illegal fishing (2017) available at https://www.icsf.net/images/samudra/pdf/english/issue_77/4319_art_Sam77_e_art06.pdf, accessed on 25 May 2019.
9. FAO Fisheries Report *Report of the Expert Consultation on Fishing Vessels Operating Under Open Registries and their impact on Illegal, unreported and unregulated fishing* (No 722) Rome: FAO Fisheries Report (2004) available at <http://www.fao.org/tempref/docrep/fao/006/y5244e/y5244e00.pdf>, accessed on 7 July 2020.
10. FAO *Report for the 23rd session of the Indian Ocean Tuna Commission (S23)* Hyderabad: FAO IOTC (2018) available at https://www.iotc.org/sites/default/files/documents/2019/10/IOTC-2019-S23-RE_Rev1_FINAL.pdf, accessed on 12 July 2020.

11. *FAO Report of the Thirty-third Session of the Committee on Fisheries* (No 1249)
Rome: COFI (2019) available at <http://www.fao.org/3/ca5184en/CA5184EN.pdf>,
accessed on 23 May 2019.

6.2 SECONDARY SOURCES

(a) Periodicals

(i) Books

1. Bergin J *The Short Oxford History of Europe, The Seventeenth Century: Europe 1598-1715* (United Kingdom: Oxford Uni. Press 2001).
2. Bosselmann K *The Principle of Sustainability, Transforming Law and Governance* (University of Auckland, New Zealand: Ashgate, 2008).
3. Christensen J *Illegal, Unreported and Unregulated Fishing in Historical Perspective* (Australia, 2016).
4. Dahmani M *The Fisheries Regime of the Exclusive Economic Zone* (Netherlands: Martinus Nijhoff Publishers, 1987).
5. Diamond J *Collapse: How Societies Choose to Fail or Succeed* (New York: Viking Books, 2005).
6. Extavour WC *The Exclusive Economic Zone, A Study of the Evolution and Progressive Development of the International Law of the Sea* (Genève: Institut universitaire de hautes études internationale, 1979).
7. Glazewski J *Environmental Law in South Africa: Second edition* (South Africa: Lexis Nexis Butterworths, 2005).
8. Hauck M and Sowman M *Waves of Change: Coastal and Fisheries Co-management in Southern Africa* (South Africa: University of Cape Town Press, 2003).
9. Kidd M *Environmental Law* (South Africa: Juta and Company, 2011).
10. Nakken O *Norwegian Spring Spawning Herring and Northeast Arctic COD 100 years of research and management* (Norway: Tapir Academic Press, 2008).
11. Palma MA *‘Combating IUU Fishing: International Legal Developments’* (Australia: Oceans Publications, 2015).
12. Palma MA, M Tsamenyi and W Edeson *Promoting Sustainable fisheries* (Leiden: Brill Nijhoff, 2010).
13. Paterson A and Louis J Kotze *Environmental Compliance and Enforcement in South Africa: Legal Perspectives* (South Africa: Juta and Company, 2008).

14. Strydom HA, King ND, Fuggle RF, Rabie MA *Environmental Management in South Africa* (2009).

(ii) Journal Articles

1. Agnew DJ, Pearce J, Pramod G, Peatman T, Watson R 'Estimating the Worldwide extent of illegal fishing' (2009) Vol. 4 No. 2, *PloS ONE*.
2. Baird R 'Illegal, unreported and unregulated fishing: an analysis of the legal, economic and historical factors relevant to its development and persistence' (2004) Vol.5 *SemanticsScholar*.
3. Belhabib D, A Padilla, UR Sumalia, D Pauly 'On governance in fisheries in Senegal: from top-down control to co-management' (2017) *SemanticsScholar*.
4. DJ Crookes 'Trading on extinction: An open-access deterrence model for the South African abalone industry' 2015) Vol. 112 No.3/4 *South African journal of science* 1.
5. Feris LA 'Compliance Notices – A New Tool in Environmental Enforcement' Vol. 9 No. 3 *P.E.R.*
6. Goble BJ, Hill TR and Michael R Phillips 'An Assessment of Integrated Coastal Management Governance and Implementation Using the DPSIR Framework' (2017) *Coastal Management* Vol. 45 No. 2 2017 Taylor & Francis online.
7. Islam M 'Indian Ocean Rim Association (IORA) An Assessment' (2017) Vol. 38 No. 2 *Biiss Journal*.
8. M Blaine M Nel 'South African maritime foreign policy: Rethinking the role of the South African navy' *African journal of Military Studies*.
9. Sowman M and Malan N 'Review of progress with integrated coastal management in South Africa since the advent of democracy' (2018) *African Journal of Marine Science*.
10. Wagner C 'The Indian Ocean Rim Association for Regional Co-operation (IOR-ARC): The futile quest for regionalism?' (2013) Vol. 9 No. 1 *Journal of the Indian Ocean*.

(iii) Newspaper Articles

1. Kings S 'Illegal fishing: A global problem' *Mail and Guardian* 20 May 2016.

(iv) Internet Sources

1. Aaron Orlowski 'IUU economic estimates climb as high as USD 50 billion in new study' available at <https://www.seafoodsource.com/news/environment-sustainability/iuu-economic-estimates-climb-as-high-as-usd-50-billion-in-new-study>, accessed on 4 July 2020.
2. Abalobi 'Abalobi' available at <http://abalobi.info/#introtext> accessed on 8 October 2019
3. African Union 'list of countries which have signed, ratified/acceded to the African charter on maritime security and safety and development in Africa (Lomé Charter)' available at https://au.int/sites/default/files/treaties/33128-sl-african_charter_on_maritime_security_and_safety_and_development_in_africa_lome_charter.pdf, accessed on 18 May 2019.
4. African Union 'NEPAD / AU Development Agency' available at <https://au.int/en/nepad>, accessed on 14 July 2020.
5. Aldred J 'Explainer: Illegal, unreported and unregulated fishing' available at <https://chinadialogueocean.net/1111813-explainer-illegal-unreported-and-unregulated-fishing/>, accessed on 25 November 2019.
6. All Africa 'West Africa: Fish-Drained Senegal to Exploit Liberian Waters Through New Agreement With Government' available at <https://allafrica.com/stories/201901300623.html>, accessed on 27 September 2019
7. AU 'African Charter on Maritime Security and Safety and Development in Africa (Lomé Charter)' available at https://au.int/sites/default/files/treaties/37286-treaty-0060_-_lome_charter_e.pdf, accessed on 27 August 2019.
8. AU 'Status of Monitoring, Control and Surveillance Systems in Southern Africa Strengthening National and Regional Capacities for Combating Illegal, Unreported and Unregulated Fishing' available at <http://www.aubib.org/component/jdownloads/finish/5-gi/2779-status-of-monitoring-control-and-surveillance-systems-in-southern-africa-strengthening-national-and-regional->

- capacities-for-combating-illegal-unreported-and-unregulated-fishing*, accessed on 21 July 2020.
9. AUDA- NEPAD ‘Overview’ available at <http://www.nepad.org/agenda-2063/overview>, accessed on 23 August 2019.
 10. AUDA-NEPAD ‘A prosperous Africa based on inclusive growth and sustainable development’ available at <http://www.nepad.org/agenda-2063/aspirations/332>, accessed on 25 August 2019.
 11. Azevêdo R ‘Africa: Cut Fishing Subsidies and Save Marine Life, Says Trade Talks Chief’ available at <https://allafrica.com/stories/201906060851.html>, accessed on 28 June 2019.
 12. Beatley M and S Edwards ‘Overfished: In Senegal, empty nets lead to hunger and violence’ available at <https://gpinvestigations.pri.org/overfished-in-senegal-empty-nets-lead-to-hunger-and-violence-e3b5d0c9a686>, accessed on 26 September 2019.
 13. Benguela Current Commission ‘Benguela Current Commission, three countries sharing a productive ecosystem’ available at https://www.benguelacc.org/index.php/en/component/docman/doc_download/695-signed-benguela-current-convention-english, accessed on 29 August 2019.
 14. Benguela Current Convention ‘Latest News’ available at <https://www.benguelacc.org/index.php/en/>, accessed on 21 May 2019.
 15. Benguela Current Convention ‘The Benguela Current Convention’ available at <https://www.benguelacc.org/index.php/en/about/the-benguela-current-convention>, accessed on 21 May 2019.
 16. Blaha F ‘Illegal, unreported and unregulated (IUU) fishing’ available at <http://www.franciscoblaha.info/new-page>, accessed on 2 June 2019.
 17. Blumenfeld B ‘Hout Bay fishing company found guilty’ available at <https://www.iol.co.za/news/south-africa/hout-bay-fishing-company-found-guilty-85806>, accessed on 22 May 2019.
 18. Booysen J ‘SA deep-sea trawling companies losing just 10% fishing quota spells catastrophe’ available at <https://www.iol.co.za/business-report/companies/sa-deep-sea-trawling-companies-losing-just-10-fishing-quota-spells-catastrophe-19736949>, accessed on 1 December 2019.
 19. Botanic Gardens Conservation International ‘Agenda 21: Programme of Action for Sustainable Development’ available at <http://www.bgci.org/worldwide/article/0011/>, accessed on 17 April 2019.

20. Bothma C ‘Electronic fishing logbooks’ available at http://www.rfalliance.org.za/wp-content/uploads/2017/06/Draft_IJ-Electronic-Report-Proposal-09-09-2016-2.pdf, accessed on 5 October 2019.
21. Caboz J ‘Three new navy ships will protect South Africa from pirates and illegal fishing - here's what they will look like’ available at <https://www.businessinsider.co.za/3-new-military-patrol-vessels-are-being-built-in-cape-town-2019-2>, accessed on 24 May 2019.
22. Cambridge Dictionary ‘deterrence’ available at <https://dictionary.cambridge.org/dictionary/english/deterrence>, accessed on 22 November 2019.
23. Campbell R ‘Building of new ships for South African Navy has started’ available at <https://www.engineeringnews.co.za/article/the-building-of-the-new-ships-for-south-african-navy-has-started-2019-03-08>, accessed on 20 September 2019.
24. CCAMLR ‘About CCAMLR’ available at <https://www.ccamlr.org/en/organisation>, accessed on 19 June 2019.
25. CCAMLR ‘Achievements and Challenges’ available at <https://www.ccamlr.org/en/organisation/key-challenges-and-achievements>, accessed on 23 August 2019.
26. CCAMLR ‘Conservation Measures’ available at <https://www.ccamlr.org/en/conservation-and-management/conservation-and-managment>, accessed on 20 June 2019.
27. CCAMLR ‘Fisheries’ available at <https://www.ccamlr.org/en/fisheries/fisheries>, accessed on 21 June 2019.
28. CCAMLR ‘Illegal, unreported and unregulated (IUU) fishing’ available at <https://www.ccamlr.org/en/compliance/illegal-unreported-and-unregulated-iuu-fishing>, accessed on 23 June 2019.
29. CCSBT ‘Commission for The Conservation of The Southern Bluefin Tuna’ available at <https://www.ccsbt.org/>, accessed on 28 June 2019.
30. CCSBT ‘Management procedure’ available at <https://www.ccsbt.org/en/content/management-procedure>, accessed on 24 June 2019.
31. CCSBT ‘Monitoring, control and surveillance’ available at <https://www.ccsbt.org/en/content/monitoring-control-and-surveillance>, accessed on 11 July 2020.

32. CCSBT ‘Strategic Plan for the Commission for the Conservation of Southern Bluefin Tuna’ available at https://www.ccsbt.org/sites/default/files/userfiles/file/docs_english/operational_resolutions/CCSBT_Strategic_Plan.pdf, accessed on 23 August 2019.
33. CEMLAWS Africa ‘It’s more than fish: Livelihoods, Gender Empowerment and SDGs at Serious Risk’ available at www.clemlawsafrica.com, accessed on 21 March 2019.
34. Centre for Environmental Rights ‘A Review and Strengthening of the Spatial Management of South Africa’s Offshore Fisheries’ available at https://cer.org.za/wp-content/uploads/2019/07/A-Review-of-Spatial-Management-in-South-Africas-Offshore-Fisheries_Final-Report-July-2018.pdf, accessed on 23 November 2019.
35. Centre for Environmental Rights ‘Government Notices’ available at <https://cer.org.za/wp-content/uploads/2018/10/Draft-National-Biodiversity-Framework.pdf>, accessed on 20 January 2020.
36. Centre for Environmental Rights ‘Uzani Environmental Advocacy CC v BP Southern Africa (Pty) Ltd’ available at <https://cer.org.za/virtual-library/judgments/high-courts/uzani-environmental-advocacy-cc-v-bp-southern-africa-pty-ltd>, accessed on 16 January 2020.
37. Chavez C ‘Using Taxes to Deter Illegal Fishing in ITQ systems’ available at https://www.greengrowthknowledge.org/sites/default/files/Chavez_Using_taxes_to_deter_illegal_fishing_in_TQ_systems.pdf, accessed on 25 November 2019.
38. CITES ‘What is CITES’ available at <https://www.cites.org/eng/disc/what.php>, accessed on 6 June 2019.
39. CMS ‘CMS’ available at <https://www.cms.int/en/legalinstrument/cms>, accessed on 7 June 2019.
40. CMS ‘Convention on the Conservation of Migratory Species of Wild Animals’ available at <https://www.cms.int/>, accessed on 5 November 2019.
41. CMS ‘Memorandum of understanding on the conservation of migratory sharks’ https://www.cms.int/sites/default/files/instrument/Sharks_MOU_Text_annexes.pdf, accessed on 17 June 2019.
42. CMS ‘Parties and Range States’ available at <https://www.cms.int/en/parties-range-states>, accessed on 16 June 2019.
43. CMS ‘South Africa’ available at <https://www.cms.int/en/country/south-africa>, accessed on 19 June 2019.

44. CMS ‘South Africa’ available at https://www.cms.int/iosea-turtles/sites/default/files/document/SouthAfrica_19_09_2014.pdf, accessed on 16 June 2019.
45. Cochrane KL ‘Informing effective policies for responsible marine fisheries in South Africa. A report prepared for WWF: South Africa and the Responsible Fisheries Alliance’ available at <https://www.rfalliance.org.za/wp-content/uploads/2017/06/Cochrane-et-al-2015-Final-Report-Informing-effective-policies-for-marine-fisheries-1.pdf>, accessed on 24 November 2019.
46. DAFF ‘About Monitoring, Control and surveillance’ available at <https://www.daff.gov.za/Branches/Fisheries-Management/Monitoring-Control-and-Surveillance>, accessed on 15 September 2019.
47. DAFF ‘Agriculture, Forestry and Fisheries on 23rd Indian Ocean tuna commission’ available at <https://www.gov.za/speeches/indian-ocean-tuna-13-jun-2019-0000>, accessed on 13 July 2020.
48. DAFF ‘Agriculture, Forestry and Fisheries on fighting Illegal, Unregulated and Unreported (IUU) fishing’ available at <https://www.gov.za/speeches/agriculture-forestry-and-fisheries-fighting-illegal-unregulated-and-unreported-iuu-fishing>, accessed on 13 July 2020.
49. DAFF ‘DAFF briefing session: International Instruments’ available at <https://static.pmg.org.za/141104daff.pdf>, accessed on 22 July 2020.
50. DAFF ‘DAFF Officials participates at the FAO Committee on Fisheries (COFI), Subcommittee on Aquaculture held in Phuket, Thailand’ available at <http://www.daff.gov.za/daaDev/articles/ArticleFAO.pdf> accessed on 12 July 2020.
51. DAFF ‘FAQs’ available at <https://www.daff.gov.za/daffweb3/FAQs/Fisheries-FAQ>, accessed on 23 November 2019.
52. DAFF ‘Financial Management (MLRF)’ available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Financial-Management-MLRF>, accessed on 19 September 2019.
53. DAFF ‘Fisheries research and development’ available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Fisheries-Research-and-Development>, accessed on 17 September 2019.
54. DAFF ‘Marine Living Resources Fund annual report 2017-2018 available at <http://pmg-assets.s3-website-eu-west->

- 1.amazonaws.com/MLRF_Annual_Report_2017-2018_FINAL.pdf*, accessed on 27 November 2019.
55. DAFF ‘Marine Resources Management’ available at *<https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Marine-Resource-Management>*, accessed on 28 August 2019
 56. DAFF ‘Marine Resources Management’ available at *<https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Small-Scale-Fishing>*, accessed on 12 September 2019.
 57. DAFF ‘Marine Resources Management’ available at *<https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Marine-Resource-Management/Recreational-Fishing/Seasons>*, accessed on 28 November 2019.
 58. DAFF ‘Minister Molewa leads SA delegation to Benguela Current Commission’s Ministerial Conference in Namibia’ available at *https://www.environment.gov.za/event/international/2016benguela_currentcommission_ministerialconference*, accessed on 15 July 2020.
 59. DAFF ‘Monitoring, control and surveillance (MCS)’ available at *<https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Monitoring-Control-and-Surveillance/FISHPVESSELS>*, accessed on 18 March 2019.
 60. DAFF ‘Monitoring Control and Surveillance (MCS)’ available at *<https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Monitoring-Control-and-Surveillance/compliances>*, accessed on 24 November 2019.
 61. DAFF ‘Office of the DDG’ available at *<https://www.daff.gov.za/Branches/Fisheries-Management/Office-Of-The-DDG>*, accessed on 15 September 2019.
 62. DAFF ‘South Africa makes its contribution to the Second International Indian Ocean Expedition (IIOE-2)’ available at *<https://www.environment.gov.za/mediarelease/southafricamakesitscontributioniioe2>*, accessed on 15 July 2020.
 63. DAFF ‘Stakeholder Engagement’ available at *<https://www.daff.gov.za/Branches/Fisheries-Management/Stakeholder-Engagement>*, accessed on 14 September 2019.
 64. DAFF ‘Vision’ available at *<https://www.daff.gov.za/daffweb3/About-Us/Vision-and-Mission>*, accessed on 22 May 2019.

65. DAFF ‘VMS presentation’ available at <http://mpaforum.org.za/wp-content/uploads/2016/11/VMS-Presentation-First-DAFF.ppt>, accessed on 5 October 2019.
66. DAFF, ‘International Relations and Obligations’ available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/International-Relations-and-Obligations>, accessed on 17 September 2019.
67. DefenceWeb ‘DAFF working on illegal, unregulated and unreported fishing as part of Phakisa’ available at <https://www.defenceweb.co.za/security/maritime-security/daff-working-on-illegal-unregulated-and-unreported-fishing-as-part-of-phakisa/>, accessed on 20 September 2019.
68. Dentlinger L ‘Former fishing magnate Bengis (81) faces arrest again’ available at <https://ewn.co.za/2017/07/20/former-fishing-magnate-bengis-81-faces-arrest-again>, accessed on 6 November 2019.
69. Department of Environment, Forestry and Fishery ‘South Africa as a party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)’ available at https://www.environment.gov.za/legislation/international_agreements/sapartytocites, accessed on 7 July 2020.
70. Department of Environmental Affairs ‘Fisheries Research and Development’ available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Fisheries-Research-and-Development>, accessed on 23 May 2019.
71. Department of Environmental Affairs ‘Fishing Rights Allocation Process’ available at <https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/-Fishing-Rights-Allocation-Process-FRAP->, accessed on 23 May 2019.
72. Department of Environmental Affairs ‘Oceans and Coasts’ available at https://www.environment.gov.za/sites/default/files/reports/environmentoutlook_chapter9.pdf, accessed on 25 May 2019.
73. Department of Environmental Affairs ‘Operation Phakisa records success in enhanced compliance and enforcement in the coastal and marine environment’ available at <https://www.environment.gov.za/mediarelease/operationphakisarecordssuccess>, accessed on 20 September 2019.
74. Department of Environmental Affairs ‘Seas of Change’ available at https://www.environment.gov.za/sites/default/files/docs/10yearsreview_marine_coast.pdf, accessed on 16 May 2019.

75. Department of Environmental Affairs ‘Shark Biodiversity Management Plan’ available at https://www.environment.gov.za/sites/default/files/gazetted_notices/nemba10of2004_s_harksbiodiversitymanagementplan_0.pdf, accessed on 22 December 2019.
76. Department of Environmental Affairs ‘South Africa’s Marine Protection increased by the New Representative Network of Operation Phakisa: Oceans Economy Marine Protected Areas’ available at <https://www.gov.za/speeches/representative-network-28-may-2019-0000>, accessed on 25 May 2019.
77. Department of Environmental Affairs ‘Withdrawal of prior notice and call for nominations for appointment on the consultative advisory forum’ available at https://www.gov.za/sites/default/files/gcis_document/201908/42608gon1018.pdf, accessed on 25 November 2019.
78. Department of Environmental Affairs and Tourism ‘Chapter 9 Oceans and coasts’ available at https://www.environment.gov.za/sites/default/files/reports/environmentoutlook_chapter9.pdf, accessed on 2 September 2019.
79. Department of Environmental Affairs and Tourism ‘Marine and Coastal Management’ available at https://www.environment.gov.za/sites/default/files/docs/15yearreview_marine_coast.pdf, accessed on 2 September 2019.
80. Department of European affairs ‘Thailand’s zero tolerance on IUU fishing and human trafficking’ available at <http://www.mfa.go.th/europetouch/th/news/8359/90126-Thailand's-Zero-Tolerance-on-IUU-Fishing-and.html>, accessed on 18 March 2019.
81. Department of International relations and cooperation ‘India-South Africa Joint Statement/Joint Communiqué of the State Visit of President Cyril Ramaphosa to India: 25-26 January 2019’ available at <http://www.dirco.gov.za/docs/2019/indi0125.htm>, accessed on 28 June 2019.
82. Department of Science and Technology ‘Science and Technology invests in Maritime Domain Awareness Satellite programme’ available at <https://www.gov.za/node/787034>, accessed on 23 May 2019.
83. Department; International cooperation and development ‘History and Present status’ available at <http://www.dirco.gov.za/foreign/Multilateral/africa/sadc.htm>, accessed on 20 July 2020.

84. Dolley C ‘Illegal fishing vessel held in Cape Town harbour’ available at <https://www.iol.co.za/news/illegal-fishing-vessel-held-in-cape-town-harbour-2021748>, accessed on 28 November 2019.
85. Doumbouya A ‘Assessing the Effectiveness of Monitoring Control and Surveillance of Illegal Fishing: The Case of West Africa’ available at <https://www.frontiersin.org/articles/10.3389/fmars.2017.00050/full>, accessed on 24 November 2019.
86. Drammeh O ‘Illegal, Unreported & Unregulated Fishing In Small-Scale Marine And Inland Capture Fisheries’ available at <http://www.fao.org/3/Y3274E/y3274e09.htm>, accessed on 6 July 2020.
87. Egede E ‘Africa’s Lomé Charter on maritime security: What are the next steps?’ available at <http://piracy-studies.org/africas-lome-charter-on-maritime-security-what-are-the-next-steps/>, accessed on 19 May 2019.
88. ENCYCLOPÆDIA BRITANNICA ‘Community’ available at <https://www.britannica.com/science/community-biology>, accessed on 10 January 2019.
89. Enviropaedia ‘Agenda 21’ available at http://www.enviropaedia.com/topic/default.php?topic_id=3, accessed on 7 July 2020.
90. European Commission ‘EU signs sustainable fishing partnership agreement protocol with Senegal’ available at https://ec.europa.eu/fisheries/press/eu-signs-sustainable-fishing-partnership-agreement-protocol-senegal_en, accessed on 25 September 2019.
91. European Commission ‘Fisheries Partnership Agreement’ available at https://ec.europa.eu/fisheries/cfp/international/agreements/senegal_en, accessed on 23 September 2019.
92. European Commission ‘Pan-African Fisheries and Aquaculture Policy framework and Reform Strategy’ available at https://ec.europa.eu/fisheries/pan-african-fisheries-and-aquaculture-policy-framework-and-reform-strategy_en, accessed on 27 August 2019.
93. European Commission ‘Questions and Answers - Illegal, Unreported and Unregulated (IUU) fishing in general and in Thailand’ available at https://europa.eu/rapid/press-release_MEMO-19-201_en.htm, accessed on 23 September 2019.
94. European Commission ‘Regional fisheries management organisations (RFMOs)’ available at https://ec.europa.eu/fisheries/cfp/international/rfmo_en, accessed on 28 October 2019.

95. FAO 'About FAO' available at <http://www.fao.org/about/en/>, accessed on 18 March 2019.
96. FAO 'About IPOA-IUU' available at <http://www.fao.org/fishery/ipoa-iuu/about/en>, accessed on 10 July 2020.
97. FAO 'Agreement on Port State Measures (PSMA)' available at <http://www.fao.org/port-state-measures/en/#:~:text=The%20Agreement%20on%20Port%20State,ports%20and%20landing%20their%20catches>, accessed on 14 July 2020.
98. FAO 'Agreement on Port State Measures (PSMA)' available at <http://www.fao.org/port-state-measures/meetings/meetings-parties/en/>, accessed on 14 July 2020.
99. FAO 'Agreement on Port State measures to prevent, deter and eliminate illegal, unreported and unregulated fishing' available at <http://www.fao.org/3/i5469t/I5469T.pdf>, accessed on 14 July 2020.
100. FAO 'Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing' available at http://www.fao.org/fileadmin/user_upload/legal/docs/037t-e.pdf, accessed on 11 May 2019.
101. FAO 'Code of Conduct for Responsible Fisheries' available at <http://www.fao.org/tempref/docrep/fao/005/v9878e/v9878e00.pdf>, accessed on 13 July 2020.
102. FAO 'COFI Sub-Committee on Aquaculture' available at <http://www.fao.org/about/meetings/cofi-sub-committee-on-aquaculture/en/>, accessed on 8 July 2020.
103. FAO 'Committee on Fisheries (COFI) - Fisheries and Aquaculture Department' available at <http://www.fao.org/fishery/about/cofi/en>, accessed on 28 May 2019.
104. FAO 'Committee on Fisheries' available at <http://www.fao.org/3/a-mk049efpdf>, accessed on 20 June 2019.
105. FAO 'Country Profiles' available at <http://www.fao.org/countryprofiles/en/>, accessed on 21 March 2019.
106. FAO 'Fisheries Observers - Terms of Reference' available at
107. FAO 'Guidelines for developing an at-sea fishery observer programme' available at <http://www.fao.org/3/a-y4390e.pdf>, accessed on 9 October 2019.

108. FAO 'Illegal, unreported and unregulated fishing, FAO Compliance Agreement' available at <http://www.fao.org/iuu-fishing/international-framework/fao-compliance-agreement/en/>, accessed on 17 May 2019.
109. FAO 'Illegal, unreported and unregulated fishing' available at <http://www.fao.org/iuu-fishing/international-framework/unclos/en/>, accessed on 21 May 2019.
110. FAO 'International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing' available at <http://www.fao.org/3/a-y1224e.pdf>, accessed on 29 June 2019.
111. FAO 'Introduction' available at <http://www.fao.org/3/t0502e/T0502E01.htm>, accessed on 22 July 2020.
112. FAO 'Links between IUU Fishing and other crimes' available at <http://www.fao.org/iuu-fishing/background/links-between-iuu-fishing-and-other-crimes/en/>, accessed on 14 October 2019.
113. FAO 'Quota Management and Management Performance' available at <http://www.fao.org/3/w7292e/w7292e04.htm>, accessed on 22 November 2019.
114. FAO 'REC.CM-GFCM/33/2009/2 on the minimum mesh size in the codend of demersal trawl nets' available at <http://www.fao.org/3/a-ax885e.pdf>, accessed on 29 November 2019.
115. FAO 'Republic of South Africa' available at <http://www.fao.org/fishery/facp/ZAF/en#:~:text=There%20are%20no%20tax%20incentives,are%20based%20on%20resource%20status>, accessed on 7 July 2020.
116. FAO 'South Africa and FAO' available at <http://www.fao.org/3/ax279e/AX279E.pdf>, accessed on 12 July 2020
117. FAO 'South Africa and the FAO' available at <http://www.fao.org/3/a-ax279e.pdf>, accessed on 24 June 2019.
118. FAO 'South East Atlantic Fisheries Organisation (SEAFO)' available at <http://www.fao.org/fishery/rfb/seaf0/en>, accessed on 23 June 2019.
119. FAO 'Southwest Indian Ocean Fisheries Commission (SWIOFC)' available at <http://www.fao.org/fishery/rfb/swiofc/en>, accessed on 23 August 2019.
120. FAO 'Sub-Committee on Fish Trade' available at <http://www.fao.org/about/meetings/cofi-sub-committee-on-fish-trade/en#:~:text=Main%20Functions%3A,aspects%20of%20production%20and%20consumption>, accessed on 8 July 2020.

121. FAO 'SWIOFC urged to effectively respond to the aspirations of coastal states' available at <http://www.fao.org/africa/news/detail-news/en/c/1176360/>, accessed on 14 July 2020.
122. FAO 'The future of food and agriculture Trends and challenges' available at <http://www.fao.org/3/a-i6583e.pdf>, accessed on 23 June 2019.
123. FAO 'The status of integrated fisheries monitoring in South Africa' available at <http://www.fao.org/3/x3900e/x3900e08.htm>, accessed on 5 October 2019.
124. FAO 'Voluntary Guidelines for Catch Documentation Schemes' available at <http://www.fao.org/3/a-i8076e.pdf>, accessed on 4 November 2019.
125. FAO 'Voluntary Guidelines for Flag State Performance' available at <http://www.fao.org/3/a-i4577t.pdf>, accessed on 3 June 2019.
126. FAO 'Voluntary Guidelines for Flag State Performance' available at <http://www.fao.org/iuu-fishing/international-framework/voluntary-guidelines-for-flag-state-performance/en/>, accessed on 7 June 2019.
127. FAO 'Voluntary Guidelines on Flag State Performance' available at <http://www.fao.org/fishery/topic/16159/en> accessed on 5 June 2019.
128. FAO 'What is IUU fishing' available at <http://www.fao.org/iuu-fishing/background/what-is-iuu-fishing/en/>, accessed on 30 October 2019.
129. FAO 'World summit on sustainable development 2002 and its implications for fisheries' available at <http://www.fao.org/3/y8294E/y8294E.htm>, accessed on 28 October 2019.
130. FAO: Agreement on Port State Measures (PSMA) 'Parties to the PSMA' available at <http://www.fao.org/port-state-measures/background/parties-psma/en/>, accessed on 28 May 2019.
131. FAO: Agreement on Port State Measures (PSMA) 'Thirty-third session of the Committee of Fisheries (COFI)' available at <http://www.fao.org/port-state-measures/news-events/detail/en/c/1111559/>, accessed on 27 May 2019.
132. FAO: Globefish - Information and Analysis on World Fish Trade 'Catch Documentation Schemes: Practices and applicability in combating IUU fishing' available at <http://www.fao.org/in-action/globefish/fishery-information/resource-detail/en/c/426994/>, accessed on 3 June 2019.
133. FAO: Illegal, Unreported and Unregulated (IUU) fishing 'Agreement on Port State Measures (PSMA)' available at <http://www.fao.org/iuu-fishing/international-framework/psma/en/>, accessed on 28 May 2019.

134. FAO: Illegal, Unreported and Unregulated (IUU) fishing ‘International Day against IUU fishing’ available at <http://www.fao.org/iuu-fishing/background/international-day-against-iuu-fishing/en/>, accessed on 27 May 2019.
135. FAO: Illegal, Unreported and Unregulated (IUU) fishing ‘Voluntary Guidelines for Catch Documentation Schemes’ available at <http://www.fao.org/iuu-fishing/international-framework/voluntary-guidelines-for-catch-documentation-schemes/en/>, accessed on 5 June 2019.
136. FAO: Illegal, Unreported and Unregulated (IUU) fishing ‘Voluntary Guidelines for Catch Documentation Schemes’ available at <http://www.fao.org/iuu-fishing/resources/detail/en/c/1132200/>, accessed on 2 June 2019.
137. FAO: Illegal, Unreported and Unregulated (IUU) fishing ‘Voluntary Guidelines for Flag State Performance’ available at <http://www.fao.org/iuu-fishing/international-framework/voluntary-guidelines-for-flag-state-performance/en/>, accessed on 7 June 2019.
138. FAO: Illegal, unreported and unregulated fishing, UNCLOS’ available at <http://www.fao.org/iuu-fishing/international-framework/unclos/en/>, accessed on 21 May 2019.
139. FAO: Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication available at <http://www.fao.org/voluntary-guidelines-small-scale-fisheries/resources/detail/en/c/1196184/>, accessed on 24 May 2019.
140. FishSA ‘Tuna Management. South Africa a Role Model’ available at <https://fishsa.org/2019/10/23/tuna-management-south-africa-a-role-model/>, accessed on 20 July 2020.
141. Food and Agricultural Organisation of the United Nations ‘2016 The State of the World Fisheries and Aquaculture’ available at <http://www.fao.org/3/i9540en/i9540en.pdf>, accessed on 4 July 2020.
142. Food and Agricultural Organisation of the United Nations ‘2018 State of the World Fisheries and Aquaculture’ available at <http://www.fao.org/3/i9540en/i9540en.pdf>, accessed on 4 July 2020.
143. Food Focus ‘Environment Conservation Act’ available at <https://www.foodfocus.co.za/assets/documents/Environment%20Conservation%20Act.pdf>, accessed on 20 July 2020.

144. Frantz T 'CITES has its critics, but record-breaking conference is critical for world's wildlife' available at <https://www.wwf.org.za/?18701/CITES-STimes-oped>, accessed on 28 August 2019.
145. Gjerde KM 'Towards a Strategy for High Seas Marine Protected Areas' available at https://cmsdata.iucn.org/downloads/towards_a_strategy_for_hsmpas.pdf, accessed on 14 October 2019.
146. Go Legal 'South African authorities prosecute over illegal fishing' available at <https://www.golegal.co.za/prosecuting-illegal-fishing/>, accessed on 14 March 2019.
147. Gondwana 'The National Environmental Management Act' available at <http://www.gondwanagroup.co.za/the-national-environmental-management-act/>, accessed on 17 September 2019.
148. Greenpeace '#Senegal' available at <https://www.greenpeace.org/africa/en/tag/senegal/>, accessed on 27 September 2019.
149. Greenpeace 'About Greenpeace' available at <https://www.greenpeace.org.uk/about/>, accessed on 7 June 2019.
150. Greenpeace 'Greenpeace' available at <https://www.greenpeace.org/global/>, accessed on 27 August 2019.
151. Greenpeace 'The history of Greenpeace' available at <http://www.greenpeace.org/eastasia/about/history/>, accessed on 29 October 2019.
152. Greenpeace 'What We Do Defending our Oceans' available at <https://www.greenpeace.org/archive-africa/en/campaigns/Defending-Our-Oceans-Hub/>, accessed on 3 June 2019.
153. Greenpeace 'How Greenpeace was born' available at <https://www.greenpeace.org/africa/en/historygreenpeaceafrica/>, accessed on 13 June 2019.
154. Greenpeace International 'Greenpeace activists detained for peaceful protest' available at <https://www.greenpeace.org/international/press-release/19614/greenpeace-activists-detained-for-peaceful-protest/>, accessed on 28 August 2019.
155. Gunter's Space Page 'ZACUBE 2 (ZA 004)' available at https://space.skyrocket.de/doc_sdat/zacube-2.htm, accessed on 3 September 2019.
156. House of Ocean 'Illegal Fishing and Vessel Identity Usurpation: Smoke and Mirrors or Dereliction of Duty?' available at <https://houseofocean.org/2014/08/14/illegal->

- fishing-and-vessel-identity-usurpation-smoke-mirrors-or-derelection-of-duty/*, accessed on 12 July 2020.
157. Human Rights Watch ‘Joint Statement on Thai Fishing Industry’ available at <https://www.hrw.org/news/2018/08/17/joint-statement-thai-fishing-industry#>, accessed on 23 July 2020.
158. Hutniczak B ‘Closing Gaps in National Regulations Against IUU Fishing’ available at <https://www.oecd-ilibrary.org/docserver/9b86ba08-en.pdf?expires=1567079217&id=id&accname=guest&checksum=E151C19173BAF7C3CABCB814669CF443>, accessed on 23 June 2019.
159. ICCAT ‘Approach to a second performance review of ICCAT’ available at https://www.iccat.int/intermeetings/Performance_rev/ENG/PER_FINAL_TOR_ENG.pdf, accessed on 27 August 2019.
160. ICCAT ‘ICCAT Press Release’ available at https://www.iccat.int/Documents/Meetings/COMM2018/PRESS_RELEASE_ENG.pdf, accessed on 28 June 2019.
161. ICCAT ‘ICCAT’ available at <https://www.nda.agric.za/doaDev/sideMenu/Biosecurity/docs/international/iccat.html>, accessed on 13 July 2020.
162. ICCAT ‘IUU Vessel List’ available at <https://www.iccat.int/en/IUUlist.html>, accessed on 28 June 2019.
163. ICLEI – Local Governments for Sustainability ‘About’ available at <http://africa.iclei.org/about-us.html>, accessed on 18 June 2019.
164. Idrissa D and Y Zhengyong ‘Senegal's fisheries policies: Evolution and performance’ available at <https://pubag.nal.usda.gov/catalog/6133107>, accessed on 26 September 2019.
165. Indian Ocean Rim Association ‘About IORA’ available at <https://www.iora.int/en/about/about-iora>, accessed on 17 May 2019.
166. Indian Ocean Rim Association ‘Fisheries Management’ available at <https://www.iora.int/en/priorities-focus-areas/fisheries-management>, accessed on 18 May 2019.
167. Indian Ocean Rim Association available at <https://www.iora.int/en>, accessed on 17 May 2019.
168. InforMEA ‘Illegal fishing’ available at <https://www.informea.org/en/terms/illegal-fishing>, accessed on 22 November 2019.

169. InforMEA ‘Range State’ available at <https://www.informea.org/en/terms/range-state>, accessed on 8 June 2019.
170. International Climate Initiative ‘Conservation and Sustainable Use of the Benguela Current Large Marine Ecosystem’ available at https://www.international-climate-initiative.com/en/details/project/conservation-and-sustainable-use-of-the-benguela-current-large-marine-ecosystem-13_IV+_041-402, accessed on 18 July 2020.
171. International MCS Network ‘3rd Stop IUU Fishing Award’ available at <http://imcsnet.org/3rd-stop-iuu-fishing-award/>, accessed on 29 November 2019.
172. International Oceanographic Data and Information Exchange ‘The LOME Charter’ available at <http://odinafrica.org/about-us/news/71-the-lome-charter.html>, accessed on 19 May 2019.
173. International Waters Governance ‘International Commission for the Conservation of Atlantic Tunas (ICCAT)’ available at <http://www.internationalwatersgovernance.com/international-commission-for-the-conservation-of-atlantic-tunas-iccat.html>, accessed on 28 June 2019.
174. IOL ‘Call to stop the overfishing of tuna’ available at <https://www.iol.co.za/capeargus/news/call-to-stop-the-overfishing-of-tuna-39645941>, accessed on 14 July 2020.
175. IORA ‘Indian Ocean Rim Association’ available at <https://www.iora.int/en>, accessed on 28 August 2019.
176. IOTC ‘Fisheries data collection of Thai oversea fishing fleet’ available at <https://www.iotc.org/documents/WPDCS/14/17-THA>, accessed on 9 October 2019.
177. IOTC ‘Structure of the commission’ available at <https://www.iotc.org/about-iotc/structure-commission>, accessed on 29 June 2019.
178. IOTC ‘The commission’ available at <https://www.iotc.org/node/1>, accessed on 27 June 2019.
179. IOTC ‘Vessels’ available at <https://www.iotc.org/vessels>, accessed on 28 June 2019.
180. IPNLF ‘It’s time for ICCAT to deliver meaningful change’ available at <http://ipnlf.org/news/its-time-for-iccat-to-deliver-meaningful-change>, accessed on 20 July 2020.
181. Kishimoto M ‘Thailand combats illegal fishing after EU threatens seafood ban’ available at <https://asia.nikkei.com/Politics/Thailand-combats-illegal-fishing-after-EU-threatens-seafood-ban>, accessed on 15 March 2019.

182. Mapuva J and L Muyengwa-Mapuva ‘The SADC regional bloc: What challenges and prospects for regional integration?’ available at http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S2077-49072014000100002, accessed on 24 August 2019.
183. Marine Stewardship Council ‘About’ available at <http://africa.msc.org>, accessed on 18 May 2019.
184. Marine Stewardship Council ‘Collaborative approach to help South African fisheries on path to sustainability’ available at <https://www.msc.org/media-centre/press-releases/collaborative-approach-to-help-south-african-fisheries-on-path-to-sustainability>, accessed on 21 May 2019.
185. Marine Stewardship Council ‘Commitment supports Woolworths' position as South Africa’s leading retailer of MSC labelled products’ available at <https://www.msc.org/en-us/media-center/news-media/commitment-supports-woolworths%27-position-as-south-africa-s-leading-retailer-of-msc-labelled-products>, accessed on 20 May 2019.
186. Marine Stewardship Council ‘Eat Sustainable Seafood’ available at <https://www.msc.org/what-you-can-do/eat-sustainable-seafood>, accessed on 20 May 2019.
187. Marine Stewardship Council ‘From Sea to shelf: Wild South African Hake’ available at, <https://www.msc.org/home/meet-the-wild-ones/from-sea-to-shelf-wild-south-african-hake> accessed on 17 May 2019.
188. Marine Stewardship Council ‘Our History’ available at <https://www.msc.org/about-the-msc/our-history>, accessed on 23 October 2019.
189. Marine Stewardship Council ‘What does the blue MSC label mean’ available at <https://www.msc.org/what-we-are-doing/our-approach/what-does-the-blue-msc-label-mean>, accessed on 6 June 2019
190. Marine Stewardship Council ‘What is sustainable fishing’ available at <https://www.msc.org/what-we-are-doing/our-approach/what-is-sustainable-fishing>, accessed on 18 April 2019.
191. Marine Stewardship Council ‘What is the MSC’ available at https://www.msc.org/about-the-msc/what-is-the-msc?gclid=Cj0KCQiAtf_tBRDtARIsAibAKelGEsFQLLNiQc5ZwNIcwYxjhugQxdMXl3QjwuJQAgDwbse8vhOhMoaAljAEALw_wcB, accessed on 28 August 2019.

192. Marine Stewardship Council ‘What is the MSC’ available at
<https://www.msc.org/en-us/about-the-msc/what-is-the-msc>, accessed on 3 June 2019.
193. Marine Stewardship Council Sea Harvest ‘Sustainability’ available at
<https://www.seaharvest.co.za/sustainability/>, accessed on 28 August 2019.
194. May A ‘ZACube-2 satellite is orbiting Earth’ available at
<https://www.iol.co.za/capeargus/news/zacube-2-satellite-is-orbiting-earth-18632621>,
accessed on 12 September 2019.
195. MFA ‘Top Stories: EU Announced the Lifting of a Yellow Card for Thailand’
available at *<http://www.mfa.go.th/main/en/news3/6885/98154-EU-Announced-the-Lifting-of-a-Yellow-Card-for-Thai.html>*, accessed on 21 October 2019.
196. Ministry of Foreign Affairs of Kingdom of Thailand ‘Top Stories: EU Announced the Lifting of a Yellow Card for Thailand’ available at
<http://www.mfa.go.th/main/en/news3/6885/98154-EU-Announced-the-Lifting-of-a-Yellow-Card-for-Thai.html>, accessed on 6 July 2020.
197. MRA Online ‘Project Biro will deliver three inshore patrol vessels by 2023’
available at *<http://maritimereview.co.za/article/ArtMID/450/ArticleID/41/Project-Biro-will-deliver-three-inshore-patrol-vessels-by-2023>*, accessed on 20 September 2019.
198. National Academy of Sciences ‘Agenda 21 Implementation: Progress, Challenges, and the Role of Geographic Data’ available at
<https://www.nap.edu/read/10455/chapter/4>, accessed on 13 May 2019.
199. National ocean service ‘How much water is the ocean’ available at
<https://oceanservice.noaa.gov/facts/oceanwater.html>, accessed on 16 April 2019.
200. NEPAD ‘How to Stop Illegal Fishing in Africa: Options for Actions to Ensure Change at Regional and International Levels’ available at
<https://www.nepad.org/publication/how-stop-illegal-fishing-africaoptions-actions-ensure-change-regional-and>, accessed on 26 August 2019.
201. NEPAD ‘Key Results’ available at *<https://www.nepad.org/countries/south-africa>*,
accessed on 14 July 2020.
202. NEPAD ‘NEPAD in brief’ available at *<https://www.nepad.org/publication/nepad-brief>*, accessed on 22 August 2019.
203. NEPAD ‘Policy briefing for the Pan-African Fisheries and Aquaculture Policy Framework and Reform Strategy on How To Stop Illegal Fishing In Africa’ available at *<https://nepad.org/file-download/download/public/15769>*, accessed on 16 July 2020.

204. New World Encyclopaedia 'Fisheries management' available at https://www.newworldencyclopedia.org/entry/Fisheries_management, accessed on 12 May 2019.
205. NOAA 'What is ghost fishing' available at <https://oceanservice.noaa.gov/facts/ghostfishing.html>, accessed on 22 November 2019
206. OECD 'About the Trade and Agriculture Directorate' available at <https://www.oecd.org/agriculture/about/>, accessed on 4 June 2019.
207. OECD 'OECD' available at <https://www.oecd.org/index.htm>, accessed on 23 August 2019.
208. OECD 'South Africa and the OECD' available at <http://www.oecd.org/southafrica/south-africa-and-oecd.htm>, accessed on 6 June 2019.
209. Oladipo O 'Cooperation as a Tool for Enhancing State Capacity to Fulfill Obligations of the Lomé Charter' available at <https://www.accord.org.za/conflict-trends/cooperation-tool-enhancing-state-capacity-fulfill-obligations-lome-charter/>, accessed on 24 August 2019.
210. OLRAC SPS 'Establishing an electronic data management model for South African fisheries' available at <http://www.rfalliance.org.za/wp-content/uploads/2017/06/Lallemand-2013-An-electronic-data-management-model-for-SA-fisheries.pdf>, accessed on 9 October 2019.
211. Operation Phakisa 'Introduction' available at <https://www.operationphakisa.gov.za/Pages/Home.aspx>, accessed on 25 May 2019.
212. Operation Phakisa 'Marine Protection Service and Ocean Governance' available at <https://www.operationphakisa.gov.za/operations/oel/pmpg/Pages/default.aspx>, accessed on 24 May 2019.
213. ORBCOMM 'Marine Visibility, Safety and Compliance: ORBCOMM VMS' available at http://www2.orbcomm.com/vms?utm_source=twitter, accessed on 9 October 2019.
214. Parlimetary Monitoring Group 'Small-scale commercial fisheries challenges: DAFF briefing, with Minister present' available at <https://pmg.org.za/committee-meeting/23996/>, accessed on 2 December 2019.
215. Patterson J '3 challenges facing the UN's Sustainable Development Goals' available at <https://www.weforum.org/agenda/2015/08/3-challenges-facing-the-uns-sustainable-development-goals/>, accessed on 28 August 2019.

216. PEW 'FAQ: Illegal, Unreported, and Unregulated Fishing' available at <https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2013/08/27/faq-illegal-unreported-and-unregulated-fishing>, accessed on 14 October 2019.
217. Tilney R, M.G. Purves 'The status of integrated fisheries monitoring in South Africa' available at <http://www.fao.org/3/x3900e/x3900e08.htm>, accessed on 9 July 2020.
218. RFA 'Fisheries Code of Conduct promotes responsible practice' available at <https://www.rfalliance.org.za/projects/fisheries-code-of-conduct-promotes-responsible-practice/>, accessed on 12 July 2020.
219. RFA 'Industry Code of Conduct for Responsible Fishing' available at <https://www.rfalliance.org.za/wp-content/uploads/2014/09/Code-of-Conduct-for-Responsible-Fisheries-29-01-2014-.pdf>, accessed on 16 July 2020.
220. Rhodes University 'Environmental Legislation and Policies' available at <https://www.ru.ac.za/environment/resources/envirolegislation/>, accessed on 16 September 2019.
221. Romulo RJ 'Unclos: 'Mare Liberium' or 'Mare Clausum'?' available at <https://opinion.inquirer.net/96462/unclos-mare-liberum-or-mare-clausum>, accessed on 12 May 2019.
222. Rose K 'Fish with a story - Abalobi is the app that helps local chefs source seafood' available at <https://m.food24.com/News-and-Guides/Features/fish-with-a-story-abalobi-is-the-app-that-helps-local-chefs-source-seafood-20180906>, accessed on 8 October 2019.
223. Peterson S, P Mullins 'WWF - Ecological Risk Assessment (ERA) Workshop for the Patagonian Toothfish Fishery' available at http://awsassets.wwf.org.za/downloads/sa_patagonian_toothfishery_era.pdf, accessed on 14 July 2020.
224. SA Navy 'Blue water capability' available at http://www.navy.mil.za/newnavy/surface/mendi040910/i040910_update.htm accessed on 20 March 2019.
225. SADC 'Background' available at <https://www.nda.agric.za/doaDev/topMenu/interEngagements/SADC.htm>, accessed on 3 July 2019.
226. SADC 'Fisheries' available at <https://www.sadc.int/themes/natural-resources/fisheries/>, accessed on 13 July 2020.

227. SADC ‘History and Treaty’ available at <https://www.sadc.int/about-sadc/overview/history-and-treaty/>, accessed on 23 October 2019.
228. SADC ‘SADC objectives’ available at <https://www.sadc.int/about-sadc/overview/sadc-objectiv/>, accessed on 2 July 2019.
229. SADC ‘Statement of Commitment’ available at https://www.sadc.int/files/8314/7306/3262/SADC_Statement_of_Commitment_on_IU_U.pdf, accessed on 14 July 2020.
230. SADSTIA ‘Reversing Overfishing of Tropical Tunas – SA’s Role’ available at <https://www.fishingindustrynewssa.com/2019/12/11/reversing-overfishing-of-tropical-tunas-sas-role/>, accessed on 18 July 2020.
231. SADSTIA ‘The Responsible Fisheries Alliance’ available at <https://www.sadstia.co.za/assets/uploads/RFA-Review.pdf>, accessed on 9 October 2019.
232. SAIIA ‘South Africa’s Indian Ocean Rim Association Legacy: A More Inclusive and Open IORA’ available at <https://saiia.org.za/research/south-africas-indian-ocean-rim-association-legacy-a-more-inclusive-and-open-iora/#>, accessed on 20 July 2020.
233. SAMSA ‘Port State Control’ available at <http://www.samsa.org.za/Pages/Portstate-Control.aspx>, accessed on 20 July 2020.
234. SAMSA ‘South Africa called upon to increase support for Indian Ocean rim countries Port State controls’ available at <https://blog.samsa.org.za/2019/08/21/south-africa-called-upon-to-increase-support-for-indian-ocean-rim-countries-port-state-controls/>, accessed on 17 July 2020.
235. SANAP ‘SCAR Fellowship Scheme, partnerships and new opportunities in 2019’ available at <https://www.sanap.ac.za/tag/ccamlr/>, accessed on 27 August 2019.
236. SAPFIA ‘Code of Responsible Fishing’ available at <https://sapfia.org.za/wp-content/uploads/2018/04/SAPFIA-Code-of-Responsible-Fishing-FINAL.pdf>, accessed on 13 July 2020.
237. Scanlon JE ‘CITES Secretary-General's remarks at the briefing on Fisheries Regulatory Framework at the Multilateral Level - Geneva, Switzerland’ available at https://www.cites.org/eng/news/sg/CITES_SG_remarks_Briefing_Fisheries_Regulatory_Framework_at_the_Multilateral_Level_21032017, accessed on 18 August 2019.

238. Sea Shepard 'About IUU fishing' available at <https://seashepherd.org/campaigns/iuu-fishing/about-iuu-fishing/>, accessed on 14 October 2019.
239. Sea Sheperd 'Illegal Chinese Fishing Vessel Enters South China Sea' available at <https://www.seashepherdglobal.org/nl/nieuws-en-events/destroy-evidence/>, accessed on 22 November 2019.
240. Seafish 'A report on the Seafish industry in South Africa' available at <https://www.seafish.org/media/775685/south%20africa.pdf>, accessed on 18 September 2019.
241. Seafood Source 'SADC states developing joint strategy to combat IUU' available at <https://www.seafoodsource.com/news/environment-sustainability/sadc-states-developing-joint-strategy-to-combat-iuu>, accessed on 13 July 2020.
242. Sharing electronic resources and laws on crime 'US v Bengis and Others' available at https://sherloc.unodc.org/cld/case-law-doc/wildlifecrimetype/usa/2011/us_v_bengis_and_others.html accessed on 27 May 2019.
243. Sheth K 'What is an Exclusive Economic Zone (EEZ)' available at <https://www.worldatlas.com/articles/what-is-an-exclusive-economic-zone-eez.html> accessed on 28 May 2019.
244. Soldo A 'Evolution and realities of the illegal fishing' available at <http://www.europarl.europa.eu/document/activities/cont/201409/20140925ATT89814/20140925ATT89814EN.pdf>, accessed on 18 May 2019.
245. South African Government 'Agriculture, Forestry and Fisheries hosts Commission for conservation of Southern Bluefin Tuna' available at <https://www.gov.za/speeches/south-africa-host-annual-meetings-commission-conservation-southern-bluefin-tuna-12-apr-2019>, accessed on 15 July 2020.
246. South African Government 'Agriculture, Forestry and Fisheries hosts Commission for conservation of Southern Bluefin Tuna' available at <https://www.gov.za/speeches/south-africa-host-annual-meetings-commission-conservation-southern-bluefin-tuna-12-apr-2019>, accessed on 24 June 2019.
247. South African Government 'Agriculture, Forestry and Fisheries on 23rd Indian Ocean tuna commission' available at <https://www.gov.za/speeches/indian-ocean-tuna-13-jun-2019-0000>, accessed on 23 August 2019.

248. South African government ‘Apply for a fish processing establishment permit’ available at <https://www.gov.za/services/fishing-permits/fish-processing-establishment>, accessed on 20 July 2020.
249. South African Government ‘Apply for a local fishing vessel licence’ available at <https://www.gov.za/services/fishing-permits/licence-local-fishing-vessel>, accessed on 24 November 2019.
250. South African Government ‘Environmental Management Plan Aganang Local Municipality’ available at <http://www.aganang.gov.za/docs/plans/Microsoft%20Word%20-%20Aganang%20EMP%20v.9.pdf>, accessed on 16 January 2019.
251. South African government ‘Fisheries’ available at <https://www.gov.za/about-sa/fisheries>, accessed on 20 March 2019.
252. South African Government ‘Minister Edna Molewa: 6th Ministerial Conference of Benguela Current Convention’ available at <https://www.gov.za/speeches/minister-edna-molewa-6th-ministerial-conference-benguela-current-convention-9-nov-2017-0000>, accessed on 19 July 2020.
253. South African government ‘Minister Senzeni Zokwana on South African fisheries’ available at <https://www.gov.za/speeches/briefing-fisheries-9-apr-2019-0000>, accessed on 2 October 2019.
254. Stop Illegal Fishing ‘COFI: the Committee on Fisheries’ available at <https://stopillegalfishing.com/events/cofi-committee-fisheries/>, accessed on 14 May 2019.
255. Stop Illegal Fishing ‘Fish –I –Africa’ available at https://stopillegalfishing.com/wp-content/uploads/2017/09/FISH-i_Africa_Our_future_WEB.pdf, accessed on 15 July 2020.
256. Stop Illegal Fishing ‘Illegal fishing deprives SADC states of revenues’ available at <https://stopillegalfishing.com/press-links/illegal-fishing-deprive-sadc-states-of-revenues-2/>, accessed on 25 August 2019.
257. Stop Illegal Fishing ‘NEPAD’ available at <https://stopillegalfishing.com/partners/nepad/>, accessed on 23 August 2019.
258. Stop Illegal Fishing ‘South Africa accedes to the FAO Port State Measures Agreement’ available at <https://stopillegalfishing.com/news-articles/south-africa-accedes-fao-port-state-measures-agreement/>, accessed on 10 July 2020.

259. Stop Illegal Fishing ‘South Africa backs allocation of fishing quotas at IOTC meeting’ available at <https://stopillegalfishing.com/press-links/south-africa-backs-allocation-of-fishing-quotas-at-iotc-meeting/>, accessed on 13 July 2020.
260. Stop Illegal Fishing ‘South Africa hosts Ninth Session of the South West Indian Ocean Fisheries Commission (SWIOFC)’ available at <https://stopillegalfishing.com/news-articles/south-africa-hosts-ninth-session-of-the-south-west-indian-ocean-fisheries-commission-swiofc/>, accessed on 14 July 2020.
261. Stop Illegal Fishing ‘Transshipment’ available at stopillegalfishing.com/issues/transshipment/, accessed on 5 August 2020.
262. Sustainable Development Goals ‘Agenda 21’ available at <https://sustainabledevelopment.un.org/outcomedocuments/agenda21>, accessed on 17 October 2019.
263. SWIOFC ‘Ten Years Promoting And Strengthening Regional Cooperation For Securing Sustainable Fisheries In South West Indian Ocean (SWIO) Region’ available at https://d2ouvy59p0dg6k.cloudfront.net/downloads/swiofc_booklet_2015.pdf, accessed on 5 July 2019.
264. Tall A ‘The Pan-African Fisheries and Aquaculture Policy Framework and Reform Strategy: Key Policy Messages Transition to sustainability, Profitability and Equitable Distribution’ available at <http://www.nepad.org/file-download/download/public/15742>, accessed on 27 August 2019.
265. Ten Years Promoting And Strengthening Regional Cooperation For Securing Sustainable Fisheries In South West Indian Ocean (SWIO) Region available at http://d2ouvy59p0dg6k.cloudfront.net/downloads/swiofc_booklet_2015.pdf, accessed on 29 August 2019.
266. Thai PBS World ‘EU lifts’ yellow card’ on Thailand for successful tackling of IUU fishing’ available at <https://www.thaipbsworld.com/eu-lifts-yellow-card-on-thailand-for-successful-tackling-of-iuu-fishing/>, accessed on 26 September 2019.
267. The Africa Report ‘Enough is enough. Africa Nations Must Unite against IUU fishing’ available at <https://www.theafricareport.com/24619/enough-is-enough-african-nations-must-unite-against-illegal-fishing/amp/>, accessed on 16 July 2020.
268. The Department of Trade and Industry ‘World Trade Organisation (WTO) reforms must respond to the needs of developing countries, Minister Davies’ available at <https://www.thedti.gov.za/editmedia.jsp?id=5870>, accessed on 28 August 2019.

269. The Ocean Conference ‘Concept paper - Partnership dialogue 4: Making fisheries sustainable’ available at <https://sustainabledevelopment.un.org/content/documents/14418Partnershipdialogue4.pdf>, accessed on 23 May 2019.
270. The PEW charitable trusts ‘FAQ: What is a regional fisheries management organization’ available at <https://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2012/02/23/faq-what-is-a-regional-fishery-management-organization>, accessed on 24 June 2019.
271. The PEW Charitable Trusts ‘The Port State Measures Agreement: From Intention to Implementation How an international treaty can help curb illegal, unreported and unregulated fishing’ available at <https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2018/04/the-port-state-measures-agreement-from-intention-to-implementation>, accessed on 15 May 2019.
272. The Royal Thai Government ‘Facts and Figures: Thailand’s Tangible Progress in Combatting IUU Fishing and Forced Labour’ available at <http://www.mfa.go.th/europetouch/contents/files/news-20180605-120010-859147.pdf>, accessed on 25 September 2019.
273. The United Nations Conference on Trade and Development ‘About UNCTAD’ available at <https://unctad.org/en/Pages/aboutus.aspx>, accessed on 17 May 2019.
274. The University of Melbourne ‘Assessing the effectiveness of the Marine Stewardship Council certification in southern countries’ available at <https://minerva-access.unimelb.edu.au/handle/11343/119740>, accessed on 28 August 2019.
275. The University of Rhode Island ‘USAID/COMFISH and USAID/COMFISH PLUS: Collaborative Management for a Sustainable Fisheries Future in Senegal’ available at https://www.crc.uri.edu/projects_page/senegalcomfish/, accessed on 26 September 2019.
276. Timeslive ‘The man who destroyed the West Coast rock lobster’ available at <https://www.dispatchlive.co.za/news/2017-07-21-the-man-who-destroyed-the-west-coast-rock-lobster/>, accessed on 24 November 2019.
277. Tipping A ‘SDG 14, the fight against IUU and developing country challenges’ available at <https://unctad.org/meetings/en/Presentation/ditc-ted-10.05.16-oceans-ictds-%20alice%20tipping.pdf>, accessed on 21 May 2019.

278. Two Oceans Aquarium ‘5 highlights from the WWF South Africa 2018 Ocean Scorecard’ available at <https://www.aquarium.co.za/blog/entry/highlights-wwf-south-africa-2018-ocean-scorecard>, accessed on 2 September 2019.
279. U4 ‘Illegal, unreported and unregulated fishing and corruption’ available at https://knowledgehub.transparency.org/assets/uploads/helpdesk/392_Illegal__unreported_and_unregulated_fishing_and_corruption.pdf, accessed on 15 October 2019.
280. UN ‘International Day for the Fight against Illegal, Unreported and Unregulated Fishing 5 June’ available at <https://www.un.org/en/events/illegalfishingday/background.shtml>, accessed on 22 November 2019.
281. UNCLOS ‘Vessels Monitoring of South African Fisheries’ available at http://www.unclos.com/vesels_monitoring.pdf, accessed on 9 October 2019.
282. UNCTAD ‘Briefing on Fisheries Regulatory Framework at the Multilateral Level’ available at <https://unctad.org/meetings/en/Presentation/ted-ditc-21032017-CITES-Scanlon.pdf>, accessed on 2 June 2019.
283. UNCTAD ‘Enhancing international cooperation in the investigation of cross-border competition cases: Tools and procedures’ available at https://unctad.org/meetings/en/SessionalDocuments/ciclpd44_en.pdf, accessed on 10 January 2020.
284. UNCTAD ‘Regulating Fisheries Subsidies’ available at <https://unctad.org/en/Pages/DITC/Trade-and-Environment/Regulating-Fisheries-Susidies.aspx>, accessed on 18 May 2019.
285. Undercurrent News ‘Tuna pole-and-line group challenges IOTC to ‘get back on track’ available at <https://www.undercurrentnews.com/2019/06/12/tune-pole-and-line-group-challenges-iotc-to-get-back-on-track/>, accessed on 23 August 2019.
286. UNDP ‘Goal 14: Life Below Water’ available at <https://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-14-life-below-water.html>, accessed on 12 October 2019.
287. UNDP ‘Goal 8: Decent work and economic growth’ available at <https://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-8-decent-work-and-economic-growth.html>, accessed on 12 October 2019.
288. UNEP ‘The Fisheries sector in Senegal’ available at https://unep.ch/etu/publications/Synth_Senegal.PDF, accessed on 26 September 2019.

289. UNESCAP ‘Thailand’s Action on Combating IUU Fishing’ available at https://www.unescap.org/sites/default/files/Session%20D_Department%20of%20Fisheries%20Thailand.pdf, accessed on 23 September 2019.
290. United Nations ‘Convention on the Conservation of Migratory Species of Wild Animals’ available at <https://observatoriop10.cepal.org/en/treaties/convention-conservation-migratory-species-wild-animals>, accessed on 29 October 2019.
291. United Nations ‘International Day for the Fight against Illegal, Unreported and Unregulated Fishing’ available at <https://www.un.org/en/events/illegalfishingday/>, accessed on 30 May 2019.
292. United Nations ‘Oceans and the Law of the Sea’ available at <https://www.un.org/en/sections/issues-depth/oceans-and-law-sea/>, accessed on 25 May 2019.
293. United Nations ‘Report of the Trade and Development Board on its sixty-seventh executive session’ available at https://unctad.org/meetings/en/SessionalDocuments/tdbex67d2_en.pdf, accessed on 29 September 2019.
294. United Nations ‘Sustainable Development Goals’ available at <https://sustainabledevelopment.un.org/?menu=1300>, accessed on 8 October 2019.
295. United Nations ‘Transforming our world: the 2030 agenda for sustainable development’ available at <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>, accessed on 24 June 2019.
296. United Nations ‘Transforming our world: the 2030 Agenda for Sustainable Development’ available at <https://sustainabledevelopment.un.org/post2015/transformingourworld>, accessed on 18 May 2019.
297. United Nations in South Africa ‘2030 Agenda’ available at <http://www.un.org.za/sdgs/2030-agenda/>, accessed on 29 May 2019.
298. United Nations Sustainable Development ‘United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992 AGENDA 21’ available at <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>, accessed on 23 June 2019.

299. United Nations: Millennium Development Goals ‘News on Millennium Development Goals’ available at <https://www.un.org/millenniumgoals/>, accessed on 25 May 2019.
300. United Nations: Sustainable Development Goals ‘The Sustainable Development Agenda’ available at <https://www.un.org/sustainabledevelopment/development-agenda/>, accessed on 23 May 2019.
301. USAID ‘Collaborative Management for a Sustainable Fisheries Future in Senegal (COMFISH)’ available at <https://www.globalwaters.org/HowWeWork/Activities/collaborative-management-sustainable-fisheries-future-senegal>, accessed on 27 September 2019
302. USAID ‘Senegal fisheries applied political economy analysis’ available at https://www.usaid.gov/documents/1860/senegal-fisheries-applied-political-economy-analysis#_ftn8, accessed on 14 October 2019.
303. USAID ‘Threats to Senegal's fishing sector: A case study from the Ziguinchor region’ available at <https://issafrica.org/research/west-africa-report/threats-to-senegals-fishing-sector-a-case-study-from-the-ziguinchor-region>, accessed on 27 September 2019.
304. USLegal ‘Sustainable Development Law and Legal Definition’ available at <https://definitions.uslegal.com/s/sustainable-development/>, accessed on 21 November 2019.
305. Van As H ‘Fishing for a solution to catch marine life smugglers’ available at <https://mg.co.za/article/2019-10-02-00-fishing-for-a-solution-to-catch-marine-life-smugglers/>, accessed on 29 November 2019.
306. Walker T ‘Can Project Biro help Africa to overcome its maritime security challenges?’ available at <https://issafrica.org/amp/iss-today/can-project-biro-help-africa-to-overcome-its-maritime-security-challenges>, accessed on 21 September 2019.
307. Western Cape Government ‘Overfishing’ available at <https://www.westerncape.gov.za/general-publication/overfishing>, accessed on 3 September 2019.
308. Western Cape Government ‘Provincial Coastal Management Programme: Annual Implementation Report 2017/18’ available at https://www.westerncape.gov.za/eadp/files/atoms/files/WC%20PCMP_Ann_Impl_Plan_2017_18_Final%2026%20March%202018.pdf, accessed on 10 January 2020.

309. Wijnstekers W 'The Evolution of CITES' available at
https://stag.cites.org/sites/default/files/common/resources/Evolution_of_CITES_9.pdf,
accessed on 3 June 2019.
310. Willemse NE. 'BCC/BCLME Strategic Action Programme (SAP) Implementation'
available at
https://www.benguelacc.org/index.php/en/component/docman/doc_download/744-bclme-somer, accessed on 26 August 2019.
311. Wipatayotin A 'IUU fishing is a crime issue, says Prawit', available at
<https://www.bangkokpost.com/thailand/general/1690072/iuu-fishing-is-a-crime-issue-says-prawit>, accessed on 25 September 2019.
312. WWF 'Catch Documentation Scheme' available at
http://d2ouvy59p0dg6k.cloudfront.net/downloads/documentation_scheme_factsheet_1.pdf, accessed on 13 July 2020.
313. WWF 'Good Governance' available at
https://wwf.panda.org/our_work/oceans/smart_fishing/how_we_do_this/good_governance2/, accessed on 5 June 2019.
314. WWF 'Ocean Facts and Figures: Valuing South Africa's ocean economy' available
at
http://awsassets.wwf.org.za/downloads/wwf_oceans_facts_and_futures_report_oct16.pdf, accessed on 19 July 2020.
315. WWF 'Our Commitment' available at
https://www.wwf.org.za/our_story/our_commitment/, accessed on 23 May 2019.
316. WWF 'Our History' available at
https://www.wwf.org.za/our_story/our_history/, accessed on 6 June 2019.
317. WWF 'Overfishing' available at <https://worldwildlife.org/threats/overfishing>,
accessed on 3 June 2019.
318. WWF 'Pirate Fishing' available at
https://wwf.panda.org/ourwork/oceans/problems/illegal_fishing/, accessed on 5 June 2019.
319. WWF 'Responsible Investment' available at
https://wwf.panda.org/our_work/oceans/smart_fishing/how_we_do_this/responsible_fisheries_investment_new/, accessed on 4 June 2019.
320. WWF 'Transforming Fisheries' available at
https://wwf.panda.org/our_work/oceans/smart_fishing/, accessed on 6 June 2019.

321. WWF 'Why we need to act' available at https://wwf.panda.org/our_work/oceans/smart_fishing/why_we_need_to_act_/, accessed on 9 June 2019.
322. WWF 'WWF' available at <https://www.wwf.org.za/>, accessed on 2 August 2019.
323. WWF South Africa 'Stilbaai' available at <http://mpaforum.org.za/portfolio/stilbaai-nature-reserve/>, accessed on 30 July 2020.



UNIVERSITY OF
KWAZULU-NATAL
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YAKWAZULU-NATALI

Miss Sinduja Bhana (215023447)
School Of Law
Howard College

Dear Miss Sinduja Bhana,

Protocol reference number: 00003080

Project title: A critical analysis of the legal framework to deter illegal, unreported and unregulated fishing in South Africa's maritime zones.

Exemption from Ethics Review

In response to your application received on 4 August 2019, your school has indicated that the protocol has been granted **EXEMPTION FROM ETHICS REVIEW**.

Any alteration/s to the exempted research protocol, e.g., Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through an amendment/modification prior to its implementation. The original exemption number must be cited.

For any changes that could result in potential risk, an ethics application including the proposed amendments must be submitted to the relevant UKZN Research Ethics Committee. The original exemption number must be cited.

In case you have further queries, please quote the above reference number.

PLEASE NOTE:

Research data should be securely stored in the discipline/department for a period of 5 years.

I take this opportunity of wishing you everything of the best with your study.

Yours sincerely,

Mr Simphiwe Peaceful Phungula
Academic Leader Research
School Of Law

UKZN Research Ethics Office
Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Website: <http://research.ukzn.ac.za/Research-Ethics/>

Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

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