

# **The impact of illegal fishing on South Africa's economy**

Mini-dissertation submitted in partial fulfilment of the requirements of the degree  
*Magister Legum in Import and Export Law*  
at the Potchefstroom Campus of the North-West University

by

**L. Schraader**

21080119

Study leader: Dr HJ Lubbe

November 2013

## **Abstract**

### **The impact of illegal fishing on South Africa's economy**

This study focuses specifically on the laws and regulations relating to commercial fishing within the Exclusive Economic Zone of South Africa and the impact of illegal fishing (IUU). The goal is to determine how overfishing can be stopped or minimised and ultimately for South Africa to harvest the illegally caught fish in such a way that it becomes part of the South African economy and generates revenue.

The study will analyse the international legal instruments applicable and their impact on the development of the South African maritime laws. An in depth look at the relevant South African maritime laws will be vital as to determine if these laws are adequate to protect the fish resources from illegal exploitation and official mismanagement. To see if South Africa's maritime laws are lacking with other countries a comparison must be done, particularly with a country like Australia that has one of the highest success rates when it comes to combating IUU fishing.

It will be found that the international legal instruments and agreements on the use of the sea have afforded rights and powers to coastal states to protect their sea zones, but it will remain the responsibility of each coastal state to determine how it will use these rights and powers to protect its own sea zones. Further it will be shown that South Africa has the necessary legislative measures in place to protect its fish resources, but the problem lies with the implementation of those measures. Australia does not only rely on its legislation to stop IUU fishing, but it also uses external methods, that South Africa will have to consider.

**Keywords:** illegal unregulated and uncontrolled fishing, sea zones, exclusive economic zone, permit

## **Opsomming**

### **Die impak van onwettige visvang op Suid-Afrika se ekonomie**

Die fokus van hierdie studie is op die wette en regulasies wat betrekking het op kommersiële visvangregte in die Eksklusiewe Ekonomiese Sone van Suid-Afrika sowel as die impak van onwettige visvang. Die doel is om vas te stel hoe onwettige visvang gestop kan word of in die alternatief beperk kan word.

Die relevante internasionale regsinstrumente se impak op die ontwikkeling van die Suid-Afrikaanse maritiemewette sal in hierdie studie geanaliseer word. Daar sal na die betrokke Suid-Afrikaanse maritiemewetgewing gekyk word om te bepaal of hierdie wette voldoende is om die visbronne teen onwettige visvang en wanbestuur van natuurlike hulpbronne te beskerm. Australië is een van die lande met die effektiwste metodes om onwettige visvang te bekamp. 'n Vergelyking tussen Australië se metodes en dié van Suid-Afrika sal getref word om die tekortkominge te bepaal.

Daar sal bevind word dat die internasionale regsinstrumente, regte en magte aan kusstate verleen rakende die gebruik van seesones. Dit sal egter steeds die verantwoordelikheid van elke kusstaat wees om te bepaal hoe hy daardie regte en magte gaan gebruik. Verder sal dit bewys word dat Suid-Afrika die nodige wetgewing in plek het om visbronne te beskerm, maar dat die probleem by die implementering van daardie maatreëls lê. Australië gebruik nie net wetgewing om onwettige visvang te bekamp nie, maar gebruik ook verdere eksterne metodes wat deur Suid-Afrika oorweeg sal moet word.

**Sleutelwoorde:** onwettige ongereguleerde en ongekontroleerde visvang, seesones, eksklusiewe ekonomiese sone, permit

## INDEX

Abstract.....	i
Opsomming .....	ii
List of abbreviations .....	v
<b>1 Introduction.....</b>	<b>1</b>
<b>2 Law of the sea.....</b>	<b>4</b>
<b>2.1 <i>Illegal fishing: An international and a national problem</i>.....</b>	<b>6</b>
<b>2.2 <i>What is illegal fishing?</i> .....</b>	<b>6</b>
<b>2.3 <i>International impact of illegal fishing</i> .....</b>	<b>8</b>
<b>2.4 <i>Impact of illegal fishing on South Africa</i>.....</b>	<b>9</b>
<b>2.5 <i>Different zones in the sea</i>.....</b>	<b>11</b>
2.5.1 <i>Internal waters</i> .....	12
2.5.2 <i>Territorial waters</i> .....	13
2.5.3 <i>Contiguous zone</i> .....	14
2.5.4 <i>Exclusive economic zone (EEZ)</i> .....	14
2.5.5 <i>High seas</i> .....	16
<b>2.6 <i>Laws and conventions regulating the exclusive economic zone</i> ...</b>	<b>16</b>
2.6.1 <i>United Nations International Law of the Sea 1982</i> .....	17
2.6.2 <i>UN Fish Stock Agreement 1982</i> .....	19
2.6.3 <i>General principles of international law</i> .....	21
<b>2.7 <i>Conclusion</i>.....</b>	<b>23</b>
<b>3 Regulating the sea fishing industry .....</b>	<b>26</b>
<b>3.1 <i>Aspects surrounding the regulation of the sea fishing industry</i> ....</b>	<b>27</b>
3.1.1 <i>Fishing rights and permits</i> .....	30
3.1.2 <i>Fishing methods – seasons, areas and fishery control officers</i>	33
3.1.2.1 <i>Fishing methods</i> .....	34
3.1.2.2 <i>Fishing seasons and areas</i> .....	36
3.1.2.3 <i>Fishery control officers</i> .....	38
3.1.3 <i>Law enforcement</i> .....	43
<b>3.2 <i>Conclusion and recommendations</i>.....</b>	<b>45</b>
<b>4 Australian rules and regulation.....</b>	<b>52</b>
<b>4.1 <i>Fishing rights and permits</i> .....</b>	<b>54</b>
<b>4.2 <i>Fishing methods, seasons, areas and fishery control officers</i> .....</b>	<b>55</b>

4.2.1	<i>Fishing methods</i> .....	55
4.2.2	<i>Fishing seasons and fishing areas</i> .....	56
4.2.3	<i>Fishery control officers</i> .....	57
<b>4.3</b>	<b><i>Law enforcement</i></b> .....	<b>61</b>
<b>4.4</b>	<b><i>Conclusion and recommendations</i></b> .....	<b>63</b>
<b>5</b>	<b>Conclusion</b> .....	<b>65</b>
	<b>Bibliography</b> .....	<b>69</b>
	<i>Literature</i> .....	<b>69</b>
	<i>South African Legislation</i> .....	<b>73</b>
	<i>Internet sources</i> .....	<b>74</b>

## List of abbreviations

AFMA	Australian Fisheries Management Authority
AFZ	Australia's Fishing Zone
BMS	Bulletin of Marine Science
CDR	Catch Disposal Record
COLTO	Coalition of Legal Toothfish Operators
DAFF	Department of Agriculture, Forestry and Fisheries
DEAT	South Africa's Department of Environmental Affairs and Tourism
DEWHA	Department of the Environment, Water, Heritage and Arts
EEZ	Exclusive Economic Zone
EU	European Union
FADs	Fish Aggregation Devices
FAO	Food and Agricultural Organization of the United Nations
IUU	Illegal, Unreported and Unregulated
LOSC	Law of the Sea Convention
MDA	Maritime Information System: Maritime Domain Awareness
MEA&T	Minister of Environmental Affairs and Tourism
MPAs	Marine Protected Areas
OECD	Organization for Economic Cooperation and Development
SAJMS	South African Journal of Marine Science
SAJS	South African Journal of Science
TACC	Total Allowable Commercial Catch
UNCLOS	Third United Nations Law of the Sea Conference
VMS	Vessel Monitoring Surveillance

## 1 Introduction

One of the biggest problems facing the South African fishing import and export industry today is illegal fishing within its territorial waters. Mr Moolla<sup>1</sup> explains the problem of illegal fishing as follows: Eighty per cent of the world's marine fish stocks are fully or over-exploited. Illegal and unreported fishing alone accounts for catches worth as much as US\$23.5 billion annually. This represents an estimated 11 to 26 million tons of fish – equivalent to about one-fifth of the global reported catch.<sup>2</sup> Mr Moolla aptly describes the extent of the problem:

In February 2006, the *Cape Argus* led with a front-page headline 'R4 400 000 000 – Poachers' Mammoth Catch'. The story was based on research undertaken by Feike on the value of poaching in the South African abalone and Patagonian toothfish sectors. The research concluded that the value of fish stolen from just these two fisheries in 2005 may have been worth R4,4 billion, which is greater than the total value of the entire South African commercial fishery (Moolla 2005). If one adds to that figure the value of hake, small pelagics and shark that are poached, it may be fair to assume that the value of fish stolen from South African waters may be as high as R6 billion annually.<sup>3</sup>

Illegal fishing may be defined as illegal, unregulated and uncontrolled fishing (hereafter IUU fishing). IUU fishing may include activities conducted by national or foreign vessels in waters under the jurisdiction of a state – without that state's permission or in contravention of that state's laws and regulations. IUU fishing does not only entail the illegal catching of fish, but also relates to the storing, shipping and selling of fish caught illegally. IUU fishing is an international problem faced by many countries.<sup>4</sup>

The main aim of this study is to analyse and evaluate the relevant South African legislation, in order to establish whether there is clarity on its use, and to establish if it adequately protects South Africa's fish resources from illegal exploitation and

---

1 Shaheen Moolla was previously a Special Legal Adviser to South Africa's Minister of Environmental Affairs and Tourism, Valli Moosa, and also served as head of South Africa's fisheries management and compliance unit, Marine and Coastal Management. Shaheen is a member of the IUCN's Commission on Environmental Law: Oceans, Coastal and Coral Reef Specialist Group and previously served on the WWF Marine Programme.

2 Flothmann *et al* 2010 *Science* 1.

3 Moolla "Contextualising illegal, unregulated and unreported fishing" 6-7.

4 Freestone, Barnes and Ong *Law of the Sea* 289-290.

official mismanagement. If South African legislation is found to be inadequate, recommendations for improvement will be made. If the legislation is, however, found to be adequate, alternative methods to help prevent IUU fishing will be considered, because the legislation alone is not enough.

To understand the rules and regulations currently applicable in South Africa with regard to the use of the sea, chapter 2 explains some of the international legal instruments that are applicable. This is done because South African marine laws are modelled on these international instruments. An example is the *Law of the Sea Convention* 1982, which was developed to help with the control and use of the sea. This Convention determines certain zones within the sea and recognises the rights that coastal states have pertaining to these zones. Sea use may be divided into five sea zones: internal waters, territorial waters, the contiguous zone, the exclusive economic zone (hereafter EEZ) and the high seas.<sup>5</sup> Other relevant international legal instruments and agreements such as the *UN Fish Stock Agreement* 1982, *Agenda 21* of 1992, *FAO Code of Conduct for Responsible Fisheries* of 1995, and the *Rio Declaration on Environmental and Development* of 1992, which South Africa is party to, are also evaluated in chapter 2. The influence they have on the use of the sea is furthermore established.<sup>6</sup>

Chapter 3 deals in detail with the legislation regulating fishing in South Africa. How South Africa uses legislation and the international laws and agreements applicable to coastal states with regard to the different zones, as well as methods used by the government to help control and regulate fishing within the EEZ, will be considered.<sup>7</sup> These methods – intended to protect marine resources – include the use of permits and fishing gear, allocating fishing seasons and areas, and the rights and duties of coastal marine officers.<sup>8</sup> South Africa uses protected areas to help safeguard its marine resources. The laws relating to the obligations of coastal states creating protected areas, and the rights and obligations of foreign state vessels within these waters, will also be examined.<sup>9</sup> The laws relating to South African courts and their

---

5 Dugard *International Law* 368-378.

6 Markowski *Environmental Requirements* 26.

7 White Paper: *Marine Fisheries Policy for South Africa* 1997.

8 Ss 18-53 *Marine Living Resources Act* 18 of 1998.

9 White Paper: *Marine Fisheries Policy for South Africa* 1997.

jurisdiction over local and foreign vessels that violate South African laws on fishing in the EEZ are reviewed.<sup>10</sup> The chapter will provide a clear framework of current South African legislation regarding the use of the sea, and how the use of the sea is being protected and controlled by the current South African legislation.

In chapter 4, Australian maritime laws will be examined, using the same criteria used for South African marine law in chapter 3. Australia has one of the biggest EEZs in the world and succeeded in stopping IUU fishing to such an extent that the Australian government could move its focus from the illegal catching of fish to the fishing markets.<sup>11</sup> A comparison between South African and Australian legislation will be made, dealing with the control and regulating of the EEZ and the fish resources within it. Because Australia has had such success in combating IUU fishing in its waters, examining their laws and regulations will help to establish what kind of rules and regulations South Africa will need to use in order to stop IUU fishing.<sup>12</sup> A comparison between the South African and Australian legislation may help establish how the South African legislation can be improved upon if necessary.

This study focuses on the regulation and management of fish resources within the EEZ, and more specifically on the laws and regulations relating to commercial fishing within the EEZ according to the *Maritime Zones Act*<sup>13</sup> of South Africa, which helps prevent overfishing. This study focuses on the impact of illegal fishing and how overfishing can be stopped or minimised. Ultimately, the goal for South Africa is to harvest the illegally caught fish in such a way that it becomes part of the South African economy and generates revenue. The environmental impact of overfishing is not considered, as this falls outside the scope of this study

---

10 Ss 58-70 *Marine Living Resources Act* 18 of 1998.

11 Vince 2007 *Ocean & Coastal Management* 686-695.

12 Vince 2007 *Ocean & Coastal Management* 686-695.

13 Article 15(3) *Maritime Zones Act* 15 of 1994.

## 2 Law of the sea

Natural resources may be divided into two groups: renewable and non-renewable. Non-renewable resources are natural resources that exist in a fixed amount that cannot be remade, regrown or regenerated. Renewable resources are generally living resources like fish, which can restock themselves if they are not over-harvested and are used sustainably. Once these renewable resources are consumed at a rate that exceeds their natural rate of replacement, the standing stock will diminish and eventually become depleted.<sup>14</sup>

Overfishing began to generate significant disputes between coastal states that wished to safeguard offshore fisheries found beyond the territorial waters. This ultimately led to the widespread recognition of the notion of an EEZ.<sup>15</sup> The over-harvesting of fish in the sea is creating an international and a national problem for many countries.<sup>16</sup>

The sea is a vast area that was uncontrolled and thus usable by anyone with limitation. Ground rules had to be laid down to make sure that the use of the sea by one party did not violate the rights of another. Grotius<sup>17</sup> was the first to help establish an international law on the sea and its use. From this early development, the international law of the sea developed further.

Dugard explains that the development of the law of the sea is in fact the history of international law itself, given that since its earliest days, international law has been profoundly involved with the regulation of navigation and fishing. In the 15th and 16th centuries, disputes arose between states that claimed unwarranted rights over the high seas, and other states that advocated the freedom of the seas. Grotius stated that the high seas are open to the use of all states – this is a fundamental principle of the law of the sea.<sup>18</sup> Cornelius van Bynkershoek, a Dutch jurist who helped to develop international law along positivist lines, initiated the basic principle

---

14 Westing (ed) *Global Resources* 3-4.

15 Rothwell and Stephens *International Law* 294.

16 Moolla "Contextualising illegal, unregulated and unreported fishing".

17 Dugard *International Law* 366-367.

18 Dugard *International Law* 366-367.

that coastal states have exclusive sovereignty over their territorial waters.<sup>19</sup> International law has evolved to take account of developments in navigation and fishing, management of the continental shelf and deep seabed, the protection of marine resources, the regulation of marine archaeological research, and the combating of pollution.<sup>20</sup>

The sources of the law of the sea can be found in customary international law, four multilateral treaties, and the 1982 *Law of the Sea Convention*. The four conventions adopted by the first and second Geneva conferences on the law of the sea in 1958 and 1960 are the *Geneva Conventions on the Territorial Sea and the Contiguous Zone*,<sup>21</sup> the *High Seas*,<sup>22</sup> the *Continental Shelf*,<sup>23</sup> and the *Fishing and Conservation of the Living Resources of the High Seas*.<sup>24</sup> These conventions have been ratified by many states, including South Africa.<sup>25</sup>

After these four conventions had been adopted, new issues arose – the most important being claims to extend the EEZ, and for mining rights on the seabed beneath the high seas. This led to the Third United Nations Law of the Sea Conference (hereafter UNCLOS), where the development of the 1982 *Law of the Sea Convention* (hereafter LOSC) was signed, although it only came into force in 1994.<sup>26</sup> South Africa withdrew from the LOSC for political reasons (*Apartheid*), and the government ratified both the Convention and the Implementation Agreement only in 1997.<sup>27</sup>

The LOSC divides the sea into different maritime zones. Each of the maritime zones has its own maritime regulations and applicable enforcement.<sup>28</sup> Some issues overlap with the ever-expanding rights of coastal states that enable them to exercise greater sovereignty and jurisdiction over their maritime zones, without impacting on the freedom of navigation of foreign states. When a coastal state has sovereign

---

19 Shaw unknown <http://www.academicroom.com>.

20 Dugard *International Law* 366-367.

21 *Geneva Conventions on the Territorial Sea and the Contiguous Zone* 1958.

22 *Geneva Convention on the High Seas* 1958.

23 *Geneva Convention Continental Shelf* 1958.

24 *Convention on Fishing and Conservation of Living Resources of the High Seas* 1958.

25 Dugard *International Law* 366-367.

26 Dugard *International Law* 366-368.

27 Dugard *International Law* 368.

28 Rothwell and Stephens *International Law* 422.

rights over a zone, it means that the state is free to make laws, regulate use, and use any resource within this zone (territorial waters). There are, however, some zones that do not allow coastal states complete sovereign rights, but limit them to certain aspects within these zones (EEZ and high seas).

## **2.1 *Illegal fishing: An international and a national problem***

Illegal fishing has a worldwide effect because it depletes the natural resources of countries that depend on fishing to sustain their economies and feed their people. It also creates a need to find a new source of income. Some countries turn to crime to keep their economies going,<sup>29</sup> while others start fishing in waters far beyond their own EEZ and territorial waters, which impacts on the economies of other countries.<sup>30</sup>

## **2.2 *What is illegal fishing?***

Illegal, unreported and unregulated (IUU) fishing is an international and a national problem. IUU is the term given to any fishing activity that contravenes national or international laws as previously stated. Illegal fishing is not limited to fishing actions of national or foreign vessels in waters under the jurisdiction of a state without that state's permission; it may also take other forms.<sup>31</sup> It may refer to actions:

... conducted by vessels flying the flag of States that are parties to a relevant regional fisheries management organization but operate in contravention of the conservation and management measures adopted by that organization 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 regional fisheries management organization.<sup>32</sup>

Unreported fishing refers to fishing activities that have not been reported or are misreported to the relevant authorities – in contravention of national laws and regulations.<sup>33</sup>

Finally, unregulated fishing refers to fishing activities conducted in an area where there are no applicable conservation or management measures, and where such

---

29 Baum 2009 <http://www.fao.org>.

30 Baum 2009 <http://www.fao.org>.

31 Freestone, Barnes and Ong *Law of the Sea* 289-290.

32 Freestone, Barnes and Ong *Law of the Sea* 289-290.

33 Freestone, Barnes and Ong *Law of the Sea* 289-290.

fishing activities are conducted in a manner inconsistent with state responsibilities for the conservation of living marine resources under international law. It could also refer to fishing actions conducted by vessels without nationality, or by those flying the flag of a state not party to that organisation.<sup>34</sup> Certain unregulated fishing activities may, however, take place in a manner that is not in violation of applicable international law, and does not require the application of measures envisaged under the international plan of action.<sup>35</sup> Felicity Huntingford, World Council of Fisheries Societies President, adds that:

IUU is a colossal problem within the marine world and we must all pull together to ensure we can effectively tackle and resolve this issue. Not only does illegal fishing represent millions lost yearly in revenue, but it thwarts the vulnerable West African fishermen who depend primarily on fishing as a cheap source of protein in their diet, and it is their only source of livelihood.<sup>36</sup>

IUU fishing has become big business for criminal syndicates and unscrupulous partners. It may be seen as straightforward poaching or fishing without authorisation, and may be carried out by nationals or foreigners and their vessels. These vessels may be completely unlicensed or may be licensed to fish in an adjoining jurisdiction. Illegal fishing may also involve vessels fishing in areas for which they have a licence. In this situation, the illegality results from breaches of the rules governing fishing practices. Illegal fishing could include the use of forbidden gear, overfishing, fishing in closed areas, exceeding by-catch limits, or failing to report accurate data. IUU fishing also involves complex webs of actions and entities, and is not limited to the illegal harvesting of fish – it includes the shipment, processing, landing, sale and distribution of fish and fish products. Usually it is not the harvesting vessel that unloads its cargo in ports. Rather, transactions take place at sea, with fish transferred from a harvesting vessel to other vessels, such as factory ships. The catch may be divided among numerous processors, brokers or importers, and multiple marketers may be involved – making the catch difficult to track.<sup>37</sup>

---

34 Freestone, Barnes and Ong *Law of the Sea* 289-290.

35 Freestone, Barnes and Ong *Law of the Sea* 289-290.

36 Huntingford 2012 <http://www.fishupdate.com>.

37 Molla "Contextualising illegal, unregulated and unreported fishing".

### **2.3 International impact of illegal fishing**

In the past 50 years one in four fisheries has collapsed because of unsustainable fishing practices, resulting in depletion of fish stocks globally. Worldwide the fishing sector plays a key role in providing food security, to the small-scale fishers who rely on fishery for food, income and services and also to the consumer who can buy this fish as food. Fish is also a source of essential micronutrients, including various vitamins and minerals.<sup>38</sup> Robertson and Butler recorded that:

In 2007, fish accounted for 15.7 percent of the global population's intake of animal protein and 6.1 percent of all protein consumed. Globally, fish provides more than 1.5 billion people with almost 20 percent of their average per capita intake of animal protein, and 3.0 billion people with 15 percent of such protein.<sup>39</sup>

Financial losses worldwide are estimated at US\$10 to 23.5 billion per year. This represents between 11 and 26 tonnes of fish.<sup>40</sup>

Examples of overfishing may be found in areas such as the North Sea of Europe, the Grand Banks of North America and the East China Sea of Asia. In these locations, overfishing has not only proved devastating to fish stocks, but also to the fishing communities relying on the harvest.<sup>41</sup>

The European Union (hereafter EU) is forced to buy and catch fish from areas beyond its borders because almost 90% of European fish stocks are in a poor condition. The problem is that the EU is focusing more on its catch capacity and destructive fishing in distant waters, instead of making real attempts to save these fish stocks and prevent their marine ecosystems from collapsing.<sup>42</sup> Baum maintains that:

European fisheries are not immune to the impact of illegal fishing. An assessment of five large ecosystems around Europe predicts that by 2020, over \$14,5 billion in catches, \$11,6 billion in stock value and 27,000 jobs could be lost if nothing is done to the problem.<sup>43</sup>

---

38 Huntingford 2012 <http://www.fishupdate.com>.

39 Robertson and Butler *World Fisheries Congress investigates the impact of illegal fishing on the industry*.

40 Robertson and Butler *World Fisheries Congress investigates the impact of illegal fishing on the industry*.

41 Lu Hui 2006 <http://www.gov.cn>.

42 Froese and Proelß 2010 <http://www.futureocean.de>.

43 Baum 2009 <http://www.fao.org>.

Spain, Europe's largest fishing nation with fleets representing almost a quarter of the EU total fishing capacity, receives the biggest subsidies in the EU. These Spanish vessels travel as far as Antarctica and Africa to plunder the oceans of fish.<sup>44</sup>

Somalia is an example of what a country might resort to when all its fish has been depleted. Piracy in Somalia is a result of the lack of income for the country, since their fish resources were being poached by foreign countries. Peter Lehr, a Somalia piracy expert at the University of St. Andrews in Scotland, states that:

Somalis collect up to \$100 million a year from pirate ransoms off their coasts. And the Europeans and Asians poach around \$300 million a year in fish from Somali waters.<sup>45</sup>

This means that in the case of Somalia, piracy started in response to the overfishing in Somali waters by European and Asian fishing vessels.<sup>46</sup> According to the SA Navy, the threat of piracy is moving south towards South Africa.<sup>47</sup> Though this study does not deal with piracy or its potential impact on countries, Somalia is an example of what countries without fish resources might do to sustain their economy.

Another country that is frequently in the news because of illegal fishing is China. In the last year alone, Chinese fishers and fishing boats have been apprehended or monitored while engaging in illegal activities in the waters of many countries, including Australia, Indonesia, the Philippines, Malaysia, Sierra Leone, Guinea and South Africa. In what amounts to a multi-billion dollar business, large European and Chinese vessels are capable of catching as much fish in a single day (15 million meals) as the small coastal African fishing boats in a year, thus depleting the fish stock and doing so illegally.<sup>48</sup>

## **2.4 Impact of illegal fishing on South Africa**

The considerable impact of illegal fishing on South Africa's economy is due to the fact that other countries have run out of fish and started to move south towards South Africa to catch more fish. Fishing in these seas is confined to subsistence

---

44 Anon 2010 <http://www.illegal-fishing.info>.

45 Salopek 2008 <http://www.independent.co.uk>.

46 Hughes 2011 <http://www.somfin.org>.

47 Etheridge 2012 <http://www.iolnews.co.za>.

48 Kofas 2011 <http://www.illegal-fishing.info>.

levels, because the fish are of great and growing importance to the bordering countries for domestic consumption and export.<sup>49</sup> On the west coast, South Africa is bordered by the Atlantic Ocean. The Atlantic hosts the world's richest fishing resources, especially the waters covering the continental shelves. Thus the Atlantic contributes significantly to the development and economy of bordering countries.<sup>50</sup>

South Africa has a commercial fisheries industry that is worth approximately R5 billion annually. In addition, fisheries provide extensively to the livelihood of many South African families by creating over 140 000 primary and secondary jobs. The Institute of Security Studies estimates that illegal fishing in South Africa is costing the country around R6 billion a year.<sup>51</sup> The country is especially vulnerable to illegal fishing since it has a coastline of over 3 000 km and an exclusive economic zone of 1 068 659 km<sup>2</sup>.

In South Africa, IUU fishing has been responsible for the collapse of the traditional line fishery, abalone and Patagonian toothfish stocks.<sup>52</sup> More recently, IUU fishing has also had an impact on the viability of the hake and pilchard fisheries, the largest of the country's fisheries. Reports of an "IUU creep" in the South African lobster and shark industries are also on the increase.<sup>53</sup>

While fish occur in all six maritime zones, this study focuses on the EEZ because this is where commercial fishing in South Africa takes place.<sup>54</sup>

One of the illegal practices currently taking place in South Africa is the use of random weighing, which entails not weighing all the fish caught, but only one or two cartons and then declaring an average mass, which is usually 30% less than the real average mass. The loss to South Africa is both financial and ecological and will increase with every catch.<sup>55</sup> Another practice is the keeping of two logbooks by the master of the vessel – one for use by the official officer at the port in charge of weighing the fish caught and another for the vessel owner. The latter records the

---

49 Anon Date Unknown <http://www.cia.gov>.

50 Anon Date Unknown <http://www.cia.gov>.

51 Gosling 2009 <http://www.iol.co.za>.

52 Moolla "Contextualising illegal, unregulated and unreported fishing" 2.

53 Moolla "Contextualising illegal, unregulated and unreported fishing" 2.

54 Article 15(3) *Maritime Zones Act* 15 of 1994.

55 Moolla "Contextualising illegal, unregulated and unreported fishing" 15.

*actual* catch, because it is, after all, in the master's own interest to carefully record exactly how much and what species of fish was caught.<sup>56</sup>

The commercial future of the South African fishing industry is becoming increasingly dependent on sustainable consumption, and sound management and conservation of its marine living resources. It is in South Africa's interest to ensure that exploitation of marine living resources within its EEZ takes place in a sustainable manner and that unsustainable fishing practices are reduced, or rather eliminated entirely.<sup>57</sup>

## **2.5 Different zones in the sea**

The five zones to be taken into account when referring to the use of the sea are the internal waters, territorial waters, contiguous and maritime zone, exclusive economic zone and the high seas.<sup>58</sup> This chapter will briefly explain the different maritime zones by means of a diagram, after which the focus will be directed to the EEZ. The applicable laws and conventions regulating the EEZ will then be evaluated to determine the true value of the applicable laws and conventions regulating the EEZ.

Figure 1 (below)<sup>59</sup> illustrates the five zones:

---

56 Moolla "Contextualising illegal, unregulated and unreported fishing" 16.

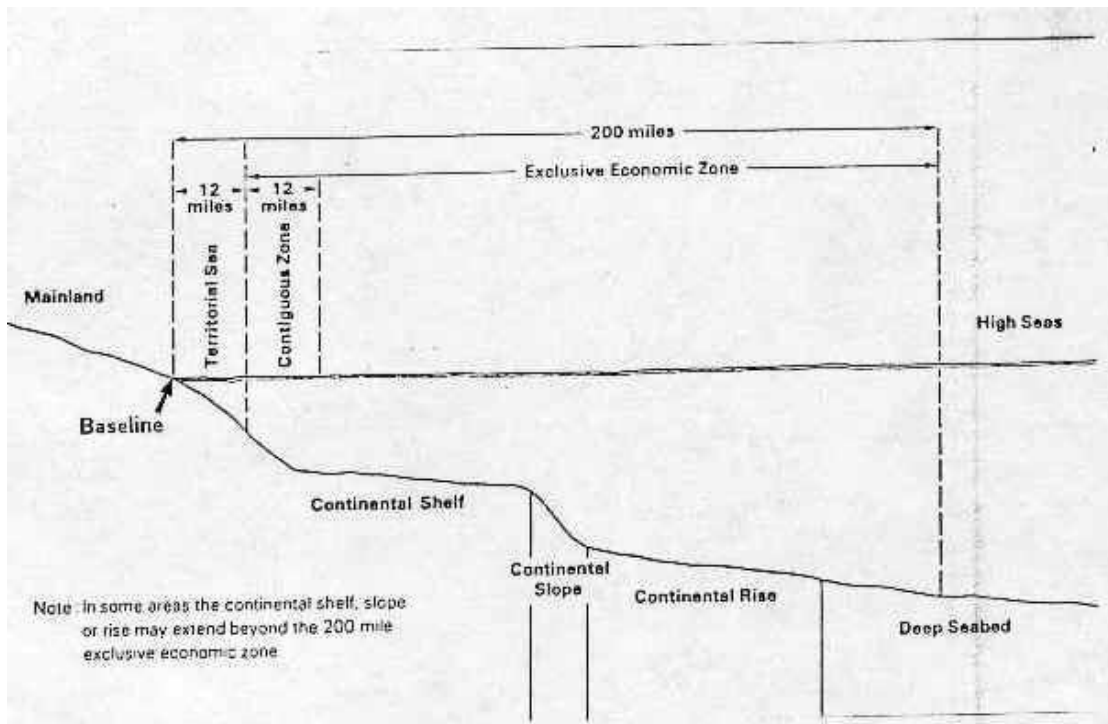
57 Moolla "Contextualising illegal, unregulated and unreported fishing" 4.

58 Dugard *International Law* 368-378.

59 LeGresley 1993 <http://www.publications.gc.ca>.

**Fig. 1 Baseline and maritime zones**

(nm – nautical mile)



Modified from Churchill and Lowe, *The Law of the Sea*, 2nd ed., Manchester University Press, Manchester, U.K., 1988

### 2.5.1 Internal waters

A baseline is the line from which the seaward limits of a state's territorial waters and other maritime zones and jurisdictions are measured. Special rules for determining this low-water line (baseline) may apply when working with topographical features, which include bays, harbours, river estuaries, deeply indented coastlines, fringing reefs, and roadstead.<sup>60</sup> A coastal state has full sovereign rights within these lines. This means that a coastal state may prosecute any person who breaks its laws within this zone. Such state is also allowed to deny access to harbours and sea waters to foreign ships within this zone.<sup>61</sup>

Internal waters are the waters (includes but are not limited to bays and rivers) on the landward side of the baseline, from which the extent of the territorial sea is measured. Each coastal state has full sovereignty over its internal waters as if they

60 Dugard *International Law* 368-371.

61 Dugard *International Law* 368-371.

were part of its land territory. A foreign ship has no right to enter internal waters without the permission of the coastal state. There is also no general right of access for foreign ships to a state's ports. The coastal state has full criminal and civil jurisdiction over acts on foreign ships in its internal waters.<sup>62</sup>

### 2.5.2 Territorial waters

A coastal state has a claim to territorial waters, extending seaward up to 12 nm, about 22 km from its baselines. The coastal state exercises sovereignty over its territorial waters, the air space above it, and the seabed and subsoil beneath it. Foreign flag ships enjoy the right of innocent passage while crossing territorial waters of a coastal state, obeying the laws and regulations adopted by the coastal state in compliance with the *LOSC* relating to such passage.<sup>63</sup>

Passage refers to navigation through the territorial sea for the purpose of traversing that sea without entering internal waters, or of proceeding to internal waters, or of making for the high seas from internal waters.<sup>64</sup> For passage to be innocent it must be uninterrupted and without delay, but may include stopping and anchoring insofar as it is incidental to ordinary navigation. Passage is innocent as long as it is not prejudicial to the peace, good order or security of the coastal state. Non-innocent passage includes the threat or use of force against the coastal state; the launching, landing or taking on board of any aircraft or military device; violation of the customs, immigration, or sanitary laws of the coastal state; pollution; fishing; carrying out of research; and interfering with the communication system of the coastal state.<sup>65</sup>

With regard to foreign flag states, a coastal state must not hinder innocent passage and must give publicity to any danger to navigation within its territorial sea.<sup>66</sup> The coastal state may stipulate sea lanes for the regulation of sea traffic.<sup>67</sup>

The 22 km limit was accepted by a large majority of states, including South Africa, and according to Dugard, may today be regarded as a customary international law

---

62 Dugard *International Law* 370-371.

63 Dugard *International Law* 371-374.

64 Article 17 *LOSC* 1982.

65 Dugard *International Law* 374-374.

66 Article 25(3) *LOSC* 1982.

67 Article 22 *LOSC* 1982.

rule.<sup>68</sup>

Foreign ships have the right to innocent passage through territorial waters. This passage can be explained as 'navigation through the territorial sea for the purpose either of traversing that sea without entering internal waters, or of proceedings to internal waters, or of making for the high seas from internal waters'.<sup>69</sup>

Coastal states have limited criminal and civil jurisdiction over persons on board foreign ships in territorial sea.<sup>70</sup> Criminal jurisdiction should not be exercised on board a foreign ship in the territorial sea to arrest any person, except under certain circumstances.<sup>71</sup> This does, however, not affect the rights of a coastal state to arrest any person on board a foreign ship in the territorial sea after leaving the internal waters of the country.<sup>72</sup>

### 2.5.3 *Contiguous zone*

The contiguous zone is extended to 24 nm (44 km) from the baseline. This zone has lost much of its purpose as states are now permitted to claim a territorial sea of 12 nm with full sovereign rights and an exclusive economic zone that follows the contiguous zone.<sup>73</sup>

### 2.5.4 *Exclusive economic zone (EEZ)*

With UNCLOS there was strong pressure for the acknowledgment of a fishing zone beyond the territorial sea<sup>74</sup> that would enable developing nations to prevent over-exploitation of their marine resources by the major fishing countries.<sup>75</sup> The EEZ stretches 200 nm (370 km) into the sea from the baseline.<sup>76</sup> The EEZ covers about 30-40% of the world's oceans and was created primarily in response to the demand

---

68 Dugard *International Law* 371.

69 Dugard *International Law* 372.

70 Dugard *International Law* 373.

71 Article 27 LOSC 1982.

72 Dugard *International Law* 373.

73 Dugard *International Law* 375.

74 Article 57 LOSC 1982.

75 Dugard *International Law* 375.

76 Guilfoyle *Shipping Interdiction* 14.

by coastal states for the right to the economic potential of its resources.<sup>77</sup> The LOSC prescribes that:

Coastal states have sovereign rights to explore and exploit, to conserve and manage the natural resources, whether living or non-living, of the water superjacent to the sea bed and of the sea bed and subsoil.<sup>78</sup>

Article 58 reserves the right of navigation to other foreign flag states<sup>79</sup> over flight and the laying of submarine cables and pipelines.<sup>80</sup> In this area ships navigate free from restrictions imposed by any state other than their flag states, and it is here where the interests of coastal states and the interest of the navigation have the greatest potential for colliding.<sup>81</sup> Both articles 56 and 58 provide for 'due regard' to the interests of the coastal state and foreign flag states in the EEZ. Coastal states that adopt laws and regulations in their exclusive economic zones must have 'due regard' for the interests of all foreign flag states to navigate in this area. Consequently, a state cannot completely close off its EEZ to navigation.<sup>82</sup>

In terms of article 56,<sup>83</sup> a coastal state has sovereign rights over living resources and non-living resources,<sup>84</sup> but the coastal state does not have the right to enforce its custom law in the EEZ.<sup>85</sup> A coastal state has jurisdictional rights within the EEZ with regard to artificial islands, installations and structures for economic purposes<sup>86</sup> and with these rights,<sup>87</sup> coastal states also have exclusive jurisdiction in relation to customs, economics, wellbeing, security and immigration laws and regulations.<sup>88</sup> Coastal states further have the right to conduct marine scientific research within the EEZ,<sup>89</sup> and limit other states<sup>90</sup> to conducting marine research only with the coastal state's consent.<sup>91</sup> The EEZ gives a coastal state the right to protect its marine

---

77 Johnson *International Shipping* 95.

78 Article 56 LOSC 1982.

79 Guilfoyle *Shipping Interdiction* 14.

80 Article 58 LOSC 1982.

81 Johnson *International Shipping* 95.

82 Johnson *International Shipping* 100-101.

83 Article 56(1) LOSC 1982.

84 Rothwell and Stephens *International Law* 89.

85 Dugard *International Law* 376-377.

86 Article 60 LOSC 1982.

87 Article 60(2) LOSC 1982.

88 Rothwell and Stephens *International Law* 90.

89 Article 60 LOSC 1982.

90 Article 256 LOSC 1982.

91 Rothwell and Stephens *International Law* 91.

environment, which includes all living and non-living resources.<sup>92</sup> Within the EEZ, foreign states have certain rights, including navigation and overflight,<sup>93</sup> environmental security, military security and rights regarding submarine cables and pipelines.<sup>94</sup>

Although a foreign state vessel is allowed to cross another coastal state's EEZ,<sup>95</sup> these rights are limited in the sense that the coastal state may stop and search any fishing vessel to guarantee its compliance with its fishing laws.<sup>96</sup>

### 2.5.5 High seas

The high seas are open to all states, whether coastal, land-locked or foreign states to the high seas. Freedom of the high seas comprises freedom of navigation, overflight, fishing, scientific research, freedom to lay submarine cables and pipelines and the freedom to construct artificial islands.<sup>97</sup> The LOSC declares<sup>98</sup> that the high seas "shall be reserved for peaceful purpose" and that the freedoms of the high seas "shall be used by all states with due regard to the interest of other states".<sup>99</sup>

## 2.6 Laws and conventions regulating the exclusive economic zone

Binding rules of international law are to be found in treaties, international custom and the general principles of law. International treaties are express agreements between states.

Two treaties of particular relevance to the exclusive economic zone (EEZ) fisheries management are the 1982 LOSC which deals with the law of the sea, and the 1982 *UN Fish Stock Agreement* which applies only to the conservation and management of straddling and highly migratory fish stocks.<sup>100</sup> In contrast to international treaties,

---

92 Rothwell and Stephens *International Law* 92.

93 Article 58(1) LOSC 1983.

94 Rothwell and Stephens *International Law* 96.

95 Rothwell and Stephens *International Law* 92.

96 Johnson *International Shipping* 19.

97 Article 87 LOSC 1982.

98 Article 88 and 87(2) LOSC 1982.

99 Dugard *International Law* 378.

100 Markowski *Environmental Requirements* 17.

which bind only the contracting parties, customary international law is binding upon all states.<sup>101</sup>

For purposes of this study, only those international laws and conventions relating to the regulation of the EEZ, to which South Africa is party, will be examined.<sup>102</sup>

### 2.6.1 *United Nations International Law of the Sea 1982*

The *LOSC* is the international agreement that resulted from the third United Nations Law of the Sea Conference.<sup>103</sup>

The primary substantive obligation on coastal states is contained in Article 61(2) of *LOSC*, according to which '[t]he coastal state ... shall ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not endangered by over-exploitation'.<sup>104</sup>

Article 55 states that the EEZ is an area beyond and adjacent to the territorial sea. The Convention administers the rights and jurisdictions of coastal states and the rights and freedoms of other states.<sup>105</sup> It also accords coastal states the sovereign right to explore and exploit, conserve and manage the natural resources, whether living or non-living, within its EEZ.<sup>106</sup>

States are allowed to protect their natural living resources in terms of article 61 of the *LOSC*, which gives coastal states the right and obligation to establish the allowable catch of the living resources in its EEZ. The determination of the total allowable catch is mandatory for the identification of the possible amount that exceeds the coastal states' own harvesting capacity and must be made available to foreign fishing fleets.<sup>107</sup> It must be noted that the primary aim of article 61 is to maintain the viability of such fish species, and not to protect their role within the food web or the functions of an ecosystem as a whole.<sup>108</sup> Article 62 grants coastal states the right to

---

101 Winter "Legal nature" 587.

102 Dugard *International Law* 366-368.

103 Rothwell and Stephens *International Law* 15-17.

104 Markowski *Environmental Requirements* 26.

105 Markowski *Environmental Requirements* 25.

106 Article 56 of *LOSC* 1982.

107 Markowski *Environmental Requirements* 29.

108 Markowski *Environmental Requirements* 31.

promote and protect the objective of optimum utilisation of the living resources in the EEZ without prejudice to article 61.<sup>109</sup>

Article 63(1) of the *LOSC* applies to transboundary stock that refers to the same stock or stocks of associated species inhabiting the same area within the EEZs of two or more coastal states. It provides that the coastal states concerned shall seek to agree upon the necessary measures to coordinate and ensure the conservation and development of such stocks within the EEZs, either directly or through appropriate subregional or regional organisations.<sup>110</sup> Article 64 of the *LOSC* concerns the highly migratory species listed in Annex 1 to the Convention, such as tuna and tuna-like species.<sup>111</sup> It stipulates that the coastal states and other states fishing for such species in a given region shall cooperate with a view to ensuring conservation and promoting the objective of optimum utilisation, both within and beyond the EEZs.

Article 73 explains the laws and regulations that coastal states may enforce in their EEZs. A coastal state may, in the exercise of its sovereign right to explore, exploit, conserve and manage the living resources in the EEZ, take such measures, including boarding, inspection, arrest and judicial proceedings, as may be necessary to ensure compliance with the laws and regulations adopted by it in conformity with this Convention.<sup>112</sup> When an arrest is made, the coastal state that made the arrest is obliged to release the arrested vessel and crews as soon as a reasonable bond has been posted. Coastal states' penalties for violations of fisheries laws and regulations in the EEZ may not include imprisonment, or any other form of corporal punishment. In cases of arrest or detention of foreign vessels, the coastal state shall promptly notify the flag state, through appropriate channels.<sup>113</sup>

If coastal states have 'clear grounds' to believe that there has been a violation in the EEZ, it may request the ship navigating in the EEZ or territorial sea to provide information that may assist in establishing whether there has been a violation.<sup>114</sup>

---

109 Markowski *Environmental Requirements* 28.

110 Markowski *Environmental Requirements* 50.

111 Markowski *Environmental Requirements* 35.

112 Guilfoyle *Shipping Interdiction* 100.

113 Guilfoyle *Shipping Interdiction* 100.

114 Article 220(3) *LOSC*.

This information may include the identity of the ship, its flag and its next and last ports of call. Physical inspection of a ship may only proceed if the ship has refused to give information or if the information it provided is 'manifestly' at variance with the facts and circumstances justified in the inspection.<sup>115</sup>

### 2.6.2 *UN Fish Stock Agreement 1982*

The *Fish Stock Agreement* came into effect on 11 December 2001 and had 78 state parties as at 22 November 2010.<sup>116</sup> South Africa became a party to the *UN Fish Stock Agreement* in 2003. In 1995 an additional agreement was negotiated to increase the provisions of the *LOSC* convention relating to straddling and highly migratory fish stock. Maguire explains:

Fisheries for straddling fish stocks are much more localized, primarily occurring in a few regions where continental shelves extend beyond the 200 miles exclusive economic zone limit or where the high productivity of the coastal area favours a more expanded distribution of coastal stocks into the high seas, or attracts high seas resources into the exclusive economic zone.<sup>117</sup>

The agreement reflects some of the significant advances in marine living resources management and related developments in international law since the 1970s. One such a development is the claim that states should cooperate to ensure conservation and promote the optimum utilisation of fish resources, both within and beyond the EEZ. It seeks to achieve its core objective of long-term conservation and sustainable use of straddling fish stock and highly migratory fish stocks through application of the precautionary principle in stock management.<sup>118</sup> This principle provides that a state shall be more vigilant when scientific information is tentative, defective or insufficient. It further claims that the lack of sufficient scientific information shall not be used as a reason for postponing or failing to take conservation and management measures.<sup>119</sup>

The *UN Fish Stock Agreement* must, according to article 4, be interpreted and applied in the context of the *LOSC* and is without prejudice to 'the rights, jurisdiction

---

115 Guilfoyle *Shipping Interdiction* 14.

116 Maguire *et al* "The state of world highly migratory".

117 Maguire *et al* "The state of world highly migratory".

118 Article 2 *UN Fish Stock Agreement* 1982.

119 Freestone, Barnes and Ong *Law of the Sea* 246-247.

and duties' of parties to the *LOSC*.<sup>120</sup> In order to conserve and manage straddling and highly migratory fish stock, article 5 stipulates that coastal states and states fishing on the high seas shall adopt methods to guarantee long-term sustainability and promote the objective of their best possible exploitation.<sup>121</sup>

These measures are designed to maintain or restore stocks at levels capable of producing maximum sustainable yields, as qualified by relevant environmental and economic factors. These include the special requirements of developing states, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global.<sup>122</sup>

Article 5(b) suggests that the reference to 'stocks' specifies that the protection and management responsibility applies to each and every single stock and it is therefore insufficient to restore only some stocks of a given species in order to conserve the species.<sup>123</sup> The *UN Fish Stock Agreement* also includes measures to help develop selective and environmentally safe fishing gear, the prevention of overfishing as well as control, monitoring and surveillance of fish resources.<sup>124</sup> Under the *UN Fish Stock Agreement*, states must calculate the impact of fishing, human activities and environmental factors on fish species belonging to the same ecosystem.<sup>125</sup> Where necessary, conservation and management measures must be adopted to maintain and restore fish populations that have become threatened.<sup>126</sup> Article 5(b) also requires that conservation and management measures be based on the best scientific evidence obtainable by the coastal state.<sup>127</sup>

The obligation, which is restated in article 7(1)(b) of the *UN Fish Stock Agreement*, requires, inter alia, the coordinated or joint determination and allocation of the total allowable catch (TAC) for such species, including the catch taken within areas under

---

120 Markowski *Environmental Requirements* 32.  
121 Markowski *Environmental Requirements* 33.  
122 Article 5(b) *UN Fish Stock Agreement* 1982.  
123 Markowski *Environmental Requirements* 33.  
124 Markowski *Environmental Requirements* 34.  
125 Article 5(d) *UN Fish Stock Agreement* 1982.  
126 Article 5(e) *UN Fish Stock Agreement* 1982.  
127 Markowski *Environmental Requirements* 34.

national jurisdiction. Article 64(1) of the *LOSC* affords coastal states sovereign rights and responsibilities with regard to highly migratory species within their EEZ.<sup>128</sup>

Within the EEZ, coastal states retain the sole right to determine the conditions under which fishing may take place, the enforcement responsibility and the control over research and data collection. Article 63(2) and article 64 of the *LOSC* must be read in the light of the *UN Fish Stock Agreement*. Article 7 of the *UN Fish Stock Agreement* goes beyond the express obligations under the *LOSC* by requiring states to cooperate in order to ensure compatibility between national and high seas measures for straddling and highly migratory fish stock. Article 7(2) of the *UN Fish Stock Agreement* lists a number of factors that must be taken into account in determining compatible conservation and management measures, such as existing national and high seas measures, the biological unity of the stocks and the impact of such measures on the living marine resources as a whole.<sup>129</sup>

Notably, the cooperation obligations established under articles 63(1) and (2) of UNCLOS both include associated species. Both paragraphs equally require states to 'seek to agree', rather than to cooperate or to reach an agreement.

State practice in the regions where stocks are presently exploited reflects basically shared responsibility of the coastal states and the relevant organizations for coordination of fisheries measures within and beyond 200 miles; at the same time there is a notification tendency to ensure the consistency of measures applicable to the high seas with those adopted by the coastal state in the exclusive economic zone.<sup>130</sup>

State practice in the regions where anadromous stocks occur shows recognition of primary interest and responsibility of the state of origin, limitation of fishing to areas within 200 mile zones, and the indispensability of international cooperation in conservation and management of such stocks.<sup>131</sup>

### 2.6.3 *General principles of international law*

At the 1992 Earth Summit in Rio de Janeiro, the principles of development that meet present needs, without compromising the ability of future generations to meet their

---

128 Markowski *Environmental Requirements* 51.

129 Markowski *Environmental Requirements* 51.

130 Winter *Towards Sustainable Fisheries Law* 23.

131 Winter *Towards Sustainable Fisheries Law* 23.

own needs, were adopted in an action plan, referred to as *Agenda 21*.<sup>132</sup> Chapter 17 of the non-binding *Agenda 21* addresses the ‘protection of the oceans, and protection, rational use and development of their living resources’, and refers to the *LOSC* as the basis upon which to pursue the protection and sustainable development of the marine and coastal environment and its resources.<sup>133</sup> After signing *Agenda 21*, South Africa implemented a local *Agenda 21*. In terms of this agenda, South Africa is working on combating overutilisation of marine resources, tourism activities linked to the coast, and coastal pollution.<sup>134</sup>

Due to the need to promote long-term sustainable fisheries, the Food and Agriculture Organization of the United Nations (hereafter *FAO*) Conference adopted the *FAO Code of Conduct for Responsible Fisheries* in 1995.<sup>135</sup> Although the *Code* is voluntary, certain parts of it are based on relevant rules of international law. The *Code* provides principles and standards applicable to the conservation, management and development of all fisheries. It also covers the capture, processing and trade of fish and fishery products, fishing operations, aquaculture, fisheries research and integration of fisheries into coastal area management. The core provision of the *Code* is article 6(1) that sets out 19 ‘general principles’ from which the remaining provisions of the *Code* are derived. Article 6 affirms that although a state has the right to use its own natural resources, like fish, it also has the obligation to ensure that it conserves and manages the natural resources and thus calls upon states and users to conserve aquatic ecosystems.<sup>136</sup> According to article 6(2):

Fisheries Management should promote the maintenance of the quality, diversity and availability of fishery resources in sufficient quantities for present and future generations in the context of food security, poverty alleviation and sustainable development.<sup>137</sup>

Article 7 of the *Code* specifically addresses fisheries management and includes areas under national jurisdiction.<sup>138</sup> South Africa, as a member of the *FAO*, should

---

132 *Agenda 21*, 1992

133 Markowski *Environmental Requirements* 49.

134 United Nations ‘Johannesburg Summit’ 52-55.

135 *Code of Conduct for Responsible Fisheries* 1998.

136 Markowski *Environmental Requirements* 39.

137 Markowski *Environmental Requirements* 39.

138 Markowski *Environmental Requirements* 39.

collaborate in the execution and implementation of the objectives and principles of this *Code*.<sup>139</sup>

The *Rio Declaration on Environment and Development*<sup>140</sup> was approved by the United Nations during the Conference on Environment and Development held in Rio de Janeiro in June 1992. It was aimed at reaffirming the Declaration of the United Nations Conference on the Human Environment, adopted in Stockholm in June 1972. The Declaration adopted a set of principles to guide the future development of protecting marine resources. These principles define the right of people to development, and their responsibilities to safeguard the common environment. South Africa is one of the signatories<sup>141</sup> of the *Rio Declaration on Environment and Development*. Principle 15, as the most frequently cited formulation, provides that:

... in order to protect the environment, the precautionary approach will be widely applied by the State according to their capabilities ...<sup>142</sup>

The precautionary approach comes into play when there are threats of grave or permanent damage, advising that a lack of full scientific confidence shall not be used as a reason for postponing cost-effective methods to prevent environmental ruin. In the fisheries management context, the precautionary principle or approach has found specific recognition.<sup>143</sup>

## **2.7 Conclusion**

The earth has more than 70% of its surface covered by water. Although geographically divided and labelled as continents, islands, seas, and oceans, the earth, when viewed from outer space, appears as one large body of water interspersed with lesser land masses. The world's oceans thus provide a common link for the more than 110 nations whose shorelines are washed by their waters. Despite these universal characteristics, however, this last earthly frontier has become an arena for disputes over such matters as fishing rights and varying claims of national jurisdiction, exploitation of deep sea mineral resources, responsibility for

---

139 Article 4(1) *FAO* 1998.

140 *Rio Declaration on Environmental and Development* 1992.

141 Collett *High potential agricultural land* vi.

142 Principle 15 of the *Rio Declaration* 1992.

143 Markowski *Environmental Requirements* 35.

the protection of the environment, the right of innocent passage of ships, and free access to the sea for land-locked countries.

The international law of the sea, created with the purpose of establishing order to the chaos at sea, was the first set of rules to regulate movement and action at sea. This Act identified different zones and laid down rules with regard to each zone. The international law of fisheries has frequently been criticised for its alleged lack of contemporary and legally binding EEZ fisheries management standards. Nevertheless, the 1982 UNCLOS in particular, as well as general international law, seems to provide a useful range of norms for national fisheries management, if carefully interpreted. Such legally binding norms include the coastal state's primary obligation to ensure that the maintenance of the living resources in its EEZ is not endangered by overexploitation; the duty to maintain or restore populations of target species at sustainable levels; the determination of catch limits for stocks actually or potentially affected by exploitation; the duty to apply the precautionary approach widely to conservation, management and exploitation of living marine resources; and duties to cooperate for the conservation and management of species not exclusively occurring within the coastal state's EEZ. Thus it appears that even greater professional attention is owed to the full and coherent implementation of the existing international standards than to the future development of the international law of fisheries.<sup>144</sup>

In the EEZ, the rights, obligations and jurisdictions of coastal states and the rights, obligations and freedoms of other states are governed by the relevant provisions as set out above. According to article 56(1)(a) of the *LOSC*, coastal states have 'sovereign rights for the purpose of exploring and exploiting, conserving and managing' the living resources in the exclusive economic zone. The sovereign rights that form the basis of EEZ fisheries management are not absolute rights, since the coastal state must have due regard for the rights and duties of other states, and act in a manner which is compatible with the *LOSC*.<sup>145</sup>

---

144 Winter *Towards Sustainable Fisheries Law* 23.

145 Markowski *Environmental Requirements* 25.

Many treaties have also been concluded with regard to the protection of marine resources. A big problem facing marine resources today is illegal fishing. This is a term used to describe actions relating to overfishing, fishing without a permit and fishing in contravention of prescribed rules and regulations. One of the biggest challenges that fishery management is facing is stopping illegal fishing. Illegal fishing may lead to the collapse of fisheries or seriously deplete fish stock. This, in turn, may result in lost economic and social opportunities, both short and long term, and may diminish food security.<sup>146</sup>

What is clear is that the concept of unconditional 'freedom of fishing' is no longer in line with the challenges of the 21<sup>st</sup> century, where resources can be rapidly depleted, fishing techniques can cause irreparable harm, and laws can be easily evaded.<sup>147</sup>

Due to the depletion of their fish resources, some northerly countries have had to start moving further south in order to satisfy their needs. This could be a problem for South Africa since the country has an EEZ of over 1 000 000 km<sup>2</sup> to protect.<sup>148</sup> Other countries have turned to more violent ways, such as piracy at sea, and although they are not yet a threat to South Africa, this may become a problem in the near future.<sup>149</sup>

---

146 Freestone, Barnes and Ong *Law of the Sea* 289-290.

147 Freestone, Barnes and Ong *Law of the Sea* 304.

148 Lu Hui 2006 <http://www.gov.cn>.

149 Etheridge 2012 [www.iolnews.co.za](http://www.iolnews.co.za).

### 3 Regulating the sea fishing industry

The most recognisable and immediate threat to commercial fisheries in South Africa, and indeed across the globe, is that of IUU fishing. Measures to prevent IUU fishing have been implemented in a number of regions across the world. For example:

On 17 October 2007, the European Commission unveiled its intention to deny IUU fishing vessels and their products access to any European port.<sup>150</sup> The European Commission estimated that IUU seafood to the value of approximately R10 billion enters the EU via its members' ports annually (WorldFish Report 2007). In August 2007, the Southern African Development Community's Secretariat decided to rekindle, as a matter of urgency, a Regional Ministerial Conference on IUU fishing, which was initially proposed in May 2002 and again in December 2004.<sup>151</sup>

In South Africa, the collapse of the traditional line fishery, abalone and Patagonian toothfish stock was the result of IUU fishing. More recently, the impact of IUU fishing has led to a decline in the sustainability of hake and pilchards, the largest of South Africa's fisheries. Reports have been received of increased IUU activities sneaking into the South African lobster and shark industries.<sup>152</sup>

The question that arises regarding IUU in South Africa: If IUU fishing is so prevalent in South African commercial fishing, can anything be done and what is being done by the authorities?<sup>153</sup>

Mr Moolla states the following, when explaining what needs to be done to stop IUU fishing:

Fisheries Management and compliance is the responsibility of Marine and Coastal Management, a branch of the Department of Environmental Affairs and Tourism. Fisheries compliance policies and its regulatory regime in South Africa must firstly be aligned with the FAO's International Plan of Action on the Prevention and Elimination of IUU Fishing.<sup>154</sup>

The International Plan of Action entails that South Africa, as well as all other coastal state UN members, has to adopt a National Plan of Action to prevent IUU fishing.

---

150 Moolla "Contextualising illegal, unregulated and unreported fishing" 4.

151 Moolla "Contextualising illegal, unregulated and unreported fishing" 4.

152 Moolla "Contextualising illegal, unregulated and unreported fishing" 4.

153 Moolla 2006 <http://www.illegal-fishing.info>.

154 Moolla 2006 <http://www.illegal-fishing.info>.

This plan should act as the blueprint for fisheries compliance and broader management.<sup>155</sup>

### **3.1 Aspects surrounding the regulation of the sea fishing industry**

The fishing industry of South Africa may be summed up as follows:

The deep-sea trawl hake fishery dominates South African fisheries, and in terms of value it accounts for approximately 45% of all landings. It is a labour intensive industry and employs approximately 8,600 people of which 2,850 are sea-going. This fishery is controlled by a small number of large companies, where the two largest companies, *Irvin & Johnson* and the *Sea Harvest Corporation*, hold 75% of the quotas. These companies control not only harvesting rights, but are vertically integrated companies, thereby controlling the entire value chain from harvesting to marketing and sales. The second largest sector is the pelagic purse seine fishery (anchovy and pilchard) which is also controlled almost exclusively by large companies. The three largest companies *Marine Products*, *Oceana* and *Saldanha Bay* hold more than 50% of the quotas. This sector employs about 700 fishermen, 1,300 permanent workers and 1,500 seasonal workers. In terms of value, the pelagic fishery contributes 25% to the total value of South African fisheries.<sup>156</sup>

South Africa has a coastline that is a unique environment and that supports many marine resources. It is a sensitive environment that needs to be preserved so as to ensure that the natural resources can be sustained. Maintaining the biodiversity of the marine and coastal ecosystems is also essential to the survival of species and ecosystems. This can only be accomplished if IUU fishing is minimised or stopped.<sup>157</sup> The Department of Environmental Affairs acknowledges that:

The department's promotion of the principles of sustainable development in terms of the marine environment are based on the principles of Agenda 21, whereby the marine environment, including all oceans and all seas and adjacent coastal areas, forms an integrated whole that is an essential component of the global life support system and a positive asset that presents opportunities for sustainable development.<sup>158</sup>

By accepting *Agenda 21* at the United Nations Conference on Environment and Development in Rio de Janeiro, Brazil in 1992 (see chapter 2), South Africa agreed to the application of integrated management of coastal areas, the sustainable use and conservation of living resources in the EEZ and the protection of the marine

---

155 Moolla 2006 <http://www.illegal-fishing.info>.

156 Martin and Nielsen 1996 <http://www.oceandocs.org>.

157 Anon 2010 <http://www.environment.gov.za>.

158 Anon 2010 <http://www.environment.gov.za>.

environment by managing pollution and promoting sustainable use and conservation of living resources in the high seas.<sup>159</sup>

There are three institutions in the South African fisheries management that have a significant impact on the industry: the Sea Fisheries Advisory Council, which helps the Minister of the Department of Environmental Affairs to determine the annual 'total allowable catch', the Quota Board,<sup>160</sup> which helps to allocate quotas in accordance with the approved guidelines and granting of fishing rights<sup>161</sup> and the Sea Fisheries Research Institute, which conducts research to help with decision-making on the optimal utilisation of South Africa's living marine resources and the conservation of the country's marine ecosystems.<sup>162</sup> The *Sea Fishery Act* No 12 of 1988 commenced on the 1 July 1990, it was the purpose of this act to provide control over sea fisheries and any other matter connected therewith. Between 1994 and 1996 the Fisheries Policy Development Committee initiated a working committee and technical subcommittees to organise and bring together participations from many interest groups and people.

The development of a new policy was guided by the Fisheries Policy Development Committee, and led to a White Paper<sup>163</sup> for public comment.<sup>164</sup> The final outcome was the *Marine Living Resources Act*,<sup>165</sup> which provides the overarching legislative framework for research, management, and monitoring, control and surveillance of marine resources. It also includes policies on the allocation and management of fishing rights, fishery sector-specific policies, the Draft Policy on the Transfer of Commercial Fishing Rights and the Draft Policy for Subsistence and Small-scale Fisheries.<sup>166</sup> The objectives of the *Marine Living Resources Act* are to:

... achieve optimum utilisation and ecologically sustainable development of marine living resources ... apply precautionary approaches in respect of the

---

159 Anon 2010 <http://www.environment.gov.za>.

160 Established in 1990.

161 S 25 *Sea Fishery Act* 12 of 1988.

162 Martin and Nielsen 1996 <http://www.oceandocs.org>.

163 GN 789 in GG 32449 of 31 July 2009.

164 Branch *et al* 2002 *SAJMS* 475.

165 Act 18 of 1998.

166 Anon 2010 <http://www.environment.gov.za>.

management ... development of marine living resources and protect[ing] the ecosystem as a whole, including species that are not targeted for exploitation...<sup>167</sup>

The government of South Africa subsequently decided to develop a new Fisheries Policy, aimed at ensuring participation of all parties in the policy-making process and fulfilling the requirements of a sustainable marine and coastal environment.<sup>168</sup> It is the objective of the marine fisheries policy to improve the overall contribution by the fishing industry to this long-term vision.<sup>169</sup>

All but a few of the provisions of the *Sea Fishery Act* were repealed by section 84(1) of the *Marine Living Resources Act*. This Act authorises the Minister of Environmental Affairs and Tourism (hereafter MEA&T) to develop all aspects of policy for the conservation and consumption of South Africa's living marine resources.<sup>170</sup>

A total of 22 per cent of South Africa's 3 000 km coastline has some degree of protection, but only nine per cent of the coastline is protected by no-take Marine Protected Areas with an additional 13 per cent protected by limited extraction and closed-area Marine Protected Areas. The country's EEZ marine environment has been divided into five bio-regions: Namaqua, Southwestern Cape, Agulhas, Natal, and Delagoa.<sup>171</sup> The 301 staff members currently employed to address compliance in the marine sectors are spread among the coastal provinces, Western Cape [143], KwaZulu-Natal [121], Eastern Cape [35], and Northern Cape [2], taking into account the length of coastline, population density, and development of fishing industries in the different bio-regions.<sup>172</sup>

The focus of this study is on the EEZ and the protection and management of the fish resources within this zone.<sup>173</sup> It is also emphasised in the *Maritime Zones Act* that any mention of fishing zones will be regarded as a reference to the EEZ.

15(3) Any reference to the fishing zone in any other law in relation to conservation, management or exploitation of living marine resources shall

---

167 Anon 2010 <http://www.environment.gov.za>.

168 Martin and Nielsen 1996 <http://www.oceandocs.org>.

169 White Paper: *Marine Fisheries Policy for South Africa* 1997.

170 Anon 2010 <http://www.environment.gov.za>.

171 Anon 2005 <http://www.environment.gov.za>.

172 Anon 2005 <http://www.environment.gov.za>.

173 S 1 *Sea Fishery Act* 12 of 1988.

be construed as a reference to the exclusive economic zone referred to in this Act.<sup>174</sup>

South Africa has identified certain areas in the sea that are called fishing zones. These fishing zones refer to the territorial waters of the Republic and its EEZ.

South Africa holds the principle that the harvesting of any fish species must not endanger the continued existence, or cause the substantial depletion of, any other species.<sup>175</sup> IUU fishing, as stated in the previous chapter, has an influence on South Africa's natural resources and social economy and in the end has no regard for the above principle.

The question that needs to be answered is whether the legislation available is sufficient to stop or minimise IUU, and if not, why not. In an attempt to answer this question, the relevant legislation will be evaluated.

### 3.1.1 *Fishing rights and permits*

In pursuit of the goals 'to achieve optimum utilization and ecologically sustainable development of maritime living resources' and 'to conserve marine living resources for both present and future generations', the authorities are given wide powers to regulate fishing in South African waters, by determining a total allowable catch for each year and by providing for the control of fishing, from both local and foreign fishing vessels.<sup>176</sup> Access to many coastal fisheries is difficult to control and a high level of policing is necessary to enforce regulations, such as bag and size limits.<sup>177</sup> 'Quota' in terms of section 1 of the *Sea Fishery Amendment Act 57 of 1992* means:

... the maximum mass or quantity of fish of a particular species allocated to an exploiter (a person) which he may catch or receive or in any other manner obtain during a specified period and in a defined area and may utilize on the authority of a permit.<sup>178</sup>

To help protect the fish resources, a total allowable catch, the total applied effort or the combination thereof is determined by the Minister.<sup>179</sup>

---

174 Ss 4 and 7 *Maritime Zones Act 15 of 1994*.

175 White Paper: *Marine Fisheries Policy for South Africa 1997*.

176 S 14 *Marine Living Resources Act 18 of 1998*.

177 Attwood, Harris and Williams 1997 SAJMS 317.

178 S 1 *Sea Fishery Amendment Act 57 of 1992*.

179 S 14 *Marine Living Resources Act 18 of 1998*.

The Minister may then specify if his or her determination will apply to a particular area, or particular gear used for fishing. The Minister is not prohibited from determining that the total allowable catch or a portion of the total allowable catch shall be nil.<sup>180</sup>

The *Marine Living Resources Act* also distinguishes between local fishing vessels and foreign fishing vessels. In granting rights to local fishing vessels, the Minister must grant a person the right to undertake commercial fishing or subsistence fishing, engage in marine culture or operate a fishing process establishment.<sup>181</sup> When applying for any of these rights, the Minister may require an environmental impact assessment report to be submitted by the applicant.<sup>182</sup> Furthermore, the *Marine Living Resources Act* specifies that:

All rights granted in terms of this section shall be valid for the period determined by the Minister, which period shall not exceed 15 years, whereafter it shall automatically terminate and revert back to the State to be reallocated in terms of the provisions of this Act relating to the allocation of such rights. The Minister may determine sustainable conservation and management measures, including the use of a particular type of vessel or gear, or area of fishing, to which a right may be subject.<sup>183</sup>

All rights, permits and licences in terms of this Act shall be granted or issued against the payment of the fees determined by the Minister after consultation with the Minister of Finance.<sup>184</sup> The Minister may refuse to approve an application for a licence if the information given to him or her by the applicant is incorrect or incomplete, or in the case of a fishing vessel that is not intended for use as a fishing boat.<sup>185</sup>

Foreign fishing vessels are not allowed fishing or related activities within South African waters, unless a foreign fishing vessel licence has been issued to such a vessel.<sup>186</sup> Section 39 of the *Marine Living Resources Act* also states that:

There shall be no foreign fishing vessel licence issued to any foreign fishing vessel unless there is in force with the government of the flag state of the vessel

---

180 S 14 *Marine Living Resources Act* 18 of 1998.

181 S 18 *Marine Living Resources Act* 18 of 1998.

182 S 18 *Marine Living Resources Act* 18 of 1998.

183 S 18 *Marine Living Resources Act* 18 of 1998.

184 S 25 *Marine Living Resources Act* 18 of 1998.

185 S 45 *Sea Fishery Amendment Act* 57 of 1992.

186 S 39 *Marine Living Resources Act* 18 of 1998.

or with an association of which the owner or charterer is a member, a fishery agreement to which the national government of the Republic is a party.<sup>187</sup>

The Minister may issue a licence to a foreign fishing vessel if the applicant can prove that he or she has sufficient financial resources and guarantees relating to his or her fulfilment of obligations arising in terms of this Act.<sup>188</sup> If the fishing vessel is used in contravention of South African law, the master, owner and charterer of the fishing vessel shall each be guilty of an offence.<sup>189</sup>

No international agreement entered into by the national government of the Republic concerning access to fish in South African waters shall exceed the total resources or the total mass of fish allowed to the appropriate category of foreign fishing vessels in terms of any applicable determination of the total allowable catch or applicable fishery plan.<sup>190</sup>

Any international agreement entered into by the national government of the Republic concerning access to fishing in South African waters shall include a provision establishing the responsibility of the foreign state or an association to take the necessary measures to ensure compliance by its vessels with the terms and conditions of the agreement and with the legislation relating to fishing in South African waters.<sup>191</sup>

(IE) the prohibition that fish or fish belonging to a particular species or category or any product of such fish, in general or in a defined area, indefinitely or during a specified period

- (i) be sold or offered for sale or delivered by any or a specified person or any category of persons to any other person or to any person belonging to any category of persons;
- (ii) be purchased or acquired or received by any or a specified person or any category of persons from any person or from a person belonging to any category of persons, except on the authority of a permit issued by the director general and in accordance with the conditions determined by him in the permit;<sup>192</sup>

The Minister may, by notice, order any person who exports or has exported fish, to furnish the director-general or any other person mentioned in the notice, with

---

187 S 39 *Marine Living Resources Act* 18 of 1998.

188 S 39 *Marine Living Resources Act* 18 of 1998.

189 S 39 *Marine Living Resources Act* 18 of 1998.

190 S 38 *Marine Living Resources Act* 18 of 1998.

191 S 38 *Marine Living Resources Act* 18 of 1998.

192 S 45 *Sea Fishery Amendment Act* No 57 of 1992.

particulars in respect of the fish or fish products which such person has available for export or has exported.<sup>193</sup>

In 2001, the department moved away from allocating annual quotas to allocating four-year rights. In 2005, when the allocation of four-year rights ended, the department embarked on a process of allocating long-term commercial fishing rights for periods of between eight and 15 years. In this regard, a General Fishing Policy and 20 fishery-specific policies were developed to guide the allocation of long-term rights. A total of 2 542 rights were allocated in 20 fishery sectors after the appeals had been concluded.<sup>194</sup>

Lionel Adendorff from the Department of Fisheries issued the following statement on 14 June 2012 regarding a Chinese-owned fishing vessel, the Eihatsu Maru:

...the Eihatsu Maru, the Chinese-owned fishing vessel that ran aground in Cape Town last month, the Department of Agriculture, Forestry and Fisheries would like to state for the record that vessel did not require or was not issued with a foreign fishing vessel licence in accordance with Section 39 of the Marine Living Resources Act of 1998 (MLRA), as it was not, as a prerequisite of this section, 'used for fishing or related activities in South African waters'.

The above statement is problematic because section 39,<sup>195</sup> as discussed above, clearly states that a foreign fishing vessel permit must be issued for fishing and other related actions. These other related actions as defined in the Act<sup>196</sup> refer to storing, refuelling, import and export of fish and the selling of fish products.

### 3.1.2 *Fishing methods – seasons, areas and fishery control officers*

Prohibiting and minimising the use of destructive methods of harvesting fish and eliminating the unauthorised collecting of fish or living marine resources for research and sale is one way to help protect the fish resources.<sup>197</sup> The identifying of fishing seasons and areas is also referred to in the *Marine Living Resources Act*. To help with the implementation, monitoring and control of fisheries (local and foreign), the

---

193 S 37 *Sea Fishery Amendment Act* 57 of 1992.

194 Anon 2010 <http://www.environment.gov.za>.

195 S 39 of the *Marine Living Resources Act* 18 of 1998.

196 S 1 of the *Marine Living Resources Act* 18 of 1998.

197 White Paper: *Marine Fisheries Policy for South Africa* 1997.

rights and obligations of fishery control officers are very important and will be examined below.

### 3.1.2.1 Fishing methods

In an attempt to protect the marine resources, traditional and artisanal fishing practices are identified. Appropriate fishing gear and methods of harvesting and resource utilisation must be used, and innovative techniques developed to increase the selectivity of fishing for desired species and sizes of fish.<sup>198</sup>

Certain methods of fishing are prohibited. According to section 18 of the *Marine Living Resources Act*,<sup>199</sup> no person is allowed to use any explosives, firearms, poison or any other noxious substance to help with the killing, disabling, stunning or catching of any fish and no person shall sell, receive or possess any fish taken by any means in contravention of this law.<sup>200</sup> To protect the fish and help enforce the permit and quota system, no person is allowed to use a net with mesh sizes that do not conform to the prescribed minimum standards.<sup>201</sup>

Fishing control officers are given wide powers of law enforcement within South African waters – and on the high seas, in hot pursuit of a vessel engaged in unlawful fishing activities in South African waters.<sup>202</sup> The use of driftnets for fishing is prohibited in South African waters:

- (c) no person on board a local fishing vessel or a foreign fishing vessel, in respect of which a foreign fishing vessel licence has been issued, shall be in possession of a driftnet or part thereof.<sup>203</sup>

Driftnetting is a fishing method where a net of up to 275 m long is stretched between two boats that sail alongside each other.<sup>204</sup> Fish caught in these nets are of different species and sizes, since there is no way to control the catch. The biggest problem with driftnet fishing is the by-catch. By-catch usually refers to fish or other marine animals caught unintentionally while intending to catch other fish, for example

---

198 White Paper: *Marine Fisheries Policy for South Africa* 1997.

199 *Marine Living Resources Act* 18 of 1998.

200 S 18 *Marine Living Resources Act* 18 of 1998.

201 S 44 *Marine Living Resources Act* 18 of 1998.

202 S 44 *Marine Living Resources Act* 18 of 1998.

203 S 47 *Marine Living Resources Act* 18 of 1998.

204 S 47 *Marine Living Resources Act* 18 of 1998.

dolphins and sea turtles. It may also indicate untargeted catch in other forms of animal harvesting or collecting, for example the by-catch may be a different species, or undersized individuals of the target species, or juveniles of another target species.<sup>205</sup>

A person must have permission from the Minister to use a fish aggregating device (FAD) to catch fish, but no person shall fish within a radius of one nautical mile from a designated FAD without the permission of the Minister and unless in accordance with the conditions that he or she may determine.<sup>206</sup> A fish aggregating device is a man-made object used to attract ocean-going pelagic fish such as marlin, tuna and mahi-mahi. FADs usually consist of buoys or floats tethered to the ocean floor with concrete blocks.<sup>207</sup> Over 300 species of fish may gather around FADs. FADs attract fish for various reasons, depending on species.<sup>208</sup> The right to use an FAD does not dissolve the obligation of the fisher to observe applicable conservation management measures. The *Marine Living Resources Act* of 1998 stipulates:

When a foreign fishing vessel that is licensed in terms of section 39(2) to fish by means of a particular type of gear in any specific area of the South African waters, that foreign vessel shall stow any other gear on board the vessel in the prescribed manner while the vessel is within that area; and shall stow all gear on board the vessel in the prescribed manner while the vessel is within any other area of the South African waters where it is not licensed to fish.<sup>209</sup>

If a licence has not been issued to a foreign fishing vessel for special gear, it is required that the gear must be stowed in the prescribed manner on board that vessel, for as long as the vessel is in South African waters.<sup>210</sup>

There are no effective management plans in place for the protection of seabirds and sharks and there are currently no guidelines on the by-catch of sea turtles in the long-line fishery. Similarly, effective management plans have not been developed for the individual sectors, IUU fishing and the overall fishing capacity. This has

---

205 Anon 2007 <http://www.smartgear.org>.

206 S 48 *Marine Living Resources Act* 18 of 1998.

207 Buckley, Itano and Buckley 1989 *BMS* 942-943.

208 Prado 1990 <http://www.fao.org>.

209 S 49 *Marine Living Resources Act* 18 of 1998.

210 S 49 *Marine Living Resources Act* 18 of 1998.

highlighted the need for an ecosystem approach to fisheries, rather than the current single-species approach to fisheries management.<sup>211</sup>

### 3.1.2.2 Fishing seasons and areas

Fishing seasons will be determined principally by biological factors, but economic factors will also be taken into account.<sup>212</sup> The Minister has the power to close seasons and areas for non-fishing and fishing.<sup>213</sup>

Marine protected areas (hereafter MPAs) may be designated for the purposes of scientific study, experimental fishing or conservation, and may include special areas for the protection of particular species. Controls will be applied to all users at all levels. MPAs will be considered as an appropriate means of control, and they will be carefully zoned to minimise their effect on the activities of users, including subsistence users. User zones will be considered as a means of separating different user groups.<sup>214</sup>

Certain species or populations thereof may be fully protected. In such cases the following considerations will apply:

- I. there will be clear criteria which can be applied consistently in facilitating the granting or refusal of fully protected status to any species or population;
- II. there will be a record of a decision as to whether fully protected status is granted on a scientific, cultural, ethical or aesthetic basis.<sup>215</sup>

South Africa currently has 21 marine protected areas, with the Still Bay MPA in the Southern Cape and the Amathole MPA near East London being declared in October 2008 and September 2011, respectively. These protected areas aim to protect biodiversity, help build up fish stock and regulate the activities of users. By extending the marine area that is brought under protection, the department can ensure the effective management, monitoring and surveillance of the promulgated areas and so reduce the possibility of IUU fishing.<sup>216</sup>

---

211 Nel, Cochrane and Petersen "Ecological Risk Assessment" 121.

212 White Paper: *Marine Fisheries Policy for South Africa* 1997.

213 S 77 *Marine Living Resources Act* 18 of 1998.

214 White Paper: *Marine Fisheries Policy for South Africa* 1997.

215 White Paper: *Marine Fisheries Policy for South Africa* 1997.

216 Anon 2010 <http://www.environment.gov.za>.

Section 27(1) of the *Marine Living Resources Act* of 1998 provides for the Minister of Fisheries to proclaim a harbour a 'fishing harbour'. Since promulgation of the *Marine Living Resources Act* in 1998, the Fisheries Minister has not proclaimed any harbour to be a fishing harbour. All 12 of the current fishing harbours were proclaimed prior to the promulgation of the *Marine Living Resources Act*.

Section 26(1) of the *Sea Fisheries Act* contained an identical provision regarding the declaration of fishing harbours. Although the sections of the two Acts are identical, the *Marine Living Resources Act* was promulgated subsequent to the adoption of the *Constitution of the Republic of South Africa*<sup>217</sup> in 1996. The *Sea Fisheries Act* was promulgated in an era of Parliamentary sovereignty and not Constitutional supremacy.

Schedule 4 (Part B) of the *Constitution* lists the regulation of, inter alia, pontoons, ferries, jetties, piers and harbours, excluding the regulation of international and national shipping and matters related thereto, as a local government function.<sup>218</sup> International and national shipping does not occur in any of the fishing harbours. Fishing harbours are exclusively limited to recreational and fishing boat activities.<sup>219</sup>

Given the perilous state of the country's fishing harbours due to a growing lack of resources available to the national Department of Fisheries, it is a most opportune time to seriously lobby for fishing harbour management and control to be handed to those local government authorities capable of managing the fishing harbours. Where the local authority lacks the resources to manage a fishing harbour under its jurisdiction, section 155 of the Constitution places the obligation on the provincial government concerned to manage the harbour in question.<sup>220</sup>

The inability of the Department of Fisheries to properly and efficiently manage the fishing harbours has a direct and adverse impact on local tourism, crime, grime and general infrastructure decay.<sup>221</sup>

---

217 *Constitution of the Republic of South Africa*, 1996.

218 Moolla 2012 <http://feikemanagement.blogspot.com>.

219 Moolla 2012 <http://feikemanagement.blogspot.com>.

220 Moolla 2012 <http://feikemanagement.blogspot.com>.

221 Moolla 2012 <http://feikemanagement.blogspot.com>.

### 3.1.2.3 Fishery control officers

It is vital that monitoring, control and surveillance systems and procedures are designed to achieve compliance with a state's national rules and regulations regarding the sea under its jurisdiction.<sup>222</sup>

The Department is responsible for protecting its marine resources, preventing illegal marine activity and ensuring compliance with legislation. To this end, fishery control officers monitor landed fish at harbours, slipways and fish-processing establishments on an on-going basis, to ensure that permit holders comply with their permit conditions and declare all their catches.<sup>223</sup>

A fishery control officer has the power to enter and search any vessel and seize any property.<sup>224</sup> The fishery control officer may, without a warrant, order any foreign fishing vessel in South African waters, and any local fishing vessel in or beyond such waters, to stop.<sup>225</sup> The officer may also instruct the master of a vessel to stop fishing and provide explanations concerning the vessel, the crew, or any person on board the vessel and to produce any documents requested.<sup>226</sup> The *Ship Registration Act* allows the following:

50. (2) The master and each member of the crew of any ship must -
  - (a) immediately comply with any lawful instruction given or request made by an officer and must facilitate safe boarding and inspection of the ship; and
  - (b) must take all measures to ensure the safety of an officer in the performance of his or her duties.<sup>227</sup>

Where a fishery control officer has reasonable grounds to believe that an offence in terms of the *Marine Living Resources Act* has been or is being committed, he or she may 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.<sup>228</sup> A fishery control officer may also arrest any person whom he or she has

---

222 Erceg 2006 *Marine Policy* 175-176.

223 Anon 2010 <http://www.environment.gov.za>.

224 S 51 *Marine Living Resources Act* 18 of 1998.

225 S 51 *Marine Living Resources Act* 18 of 1998.

226 S 51 *Marine Living Resources Act* 18 of 1998.

227 S 50 *Ship Registration Act* 58 of 1998.

228 S 51 *Marine Living Resources Act* 18 of 1998.

reasonable grounds to suspect to have committed an offence in terms of the *Marine Living Resources Act*.<sup>229</sup> The fishery control officer is deemed to be a peace officer, as defined in section 1 of the *Criminal Procedure Act* 51 of 1977.<sup>230</sup> In the exercise of the powers conferred on a fishery control officer, he or she may use only the minimum force which is reasonable in the circumstances, and must have due regard to human dignity and privacy.<sup>231</sup>

The monitoring of fish landings in South Africa has been increased for three target species: first hake, second west coast rock lobster and third squid and pelagic. To monitor resource use by various sectors, such as fisheries, port-based and factory-based processing establishments and restaurants, compliance task teams have been established on the West and Southwest coasts to monitor activity related to target species.<sup>232</sup>

A fishery control officer may, without a warrant, follow in hot pursuit in accordance with international law as reflected in section 111 of the *United Nations Convention on the Law of the Sea*.<sup>233</sup>

...stop, board and search outside South African waters, any foreign fishing vessel which he or she has reasonable grounds to believe has been used in the commission of an offence in terms of this Act in South African waters and bring such vessel and all persons and things on board to any place, port or harbour in the territory of the Republic; and... exercise beyond South African waters all the powers conferred on a fishery control officer in terms of this Act.<sup>234</sup>

According to South Africa's *Defence Act*,<sup>235</sup> any warship may exercise on behalf of the Republic or on behalf of a foreign state, the right of hot pursuit of any ship in accordance with article 111 of the *United Nations Convention on the Law of the Sea*. The seizure of a ship and the arrest of any person on board such a ship may be effected by any officer of any warship which acts in accordance with this section.<sup>236</sup>

---

229 S 1 *Marine Living Resources Act* 18 of 1998.

230 S 1 *Criminal Procedure Act* 51 of 1977.

231 S 51 *Marine Living Resources Act* 18 of 1998.

232 Anon 2010 <http://www.environment.gov.za>.

233 S 111 *United Nations Convention on the Law of the Sea* 1982.

234 S 53 *Marine Living Resources Act* 18 of 1998.

235 *Defence Act* 42 of 2002.

236 S 27 *Defence Act* 42 of 2002.

When it happens that a vessel is seized, the master and crew thereof shall take the vessel to a port or harbour in the territory of the Republic as the fishery control officer requires.<sup>237</sup> This vessel may then be detained pending the outcome of any proceedings in terms of this Act, until released on payment.<sup>238</sup> If the master refuses to take the vessel to the designated port or harbour, the fishery control officer may take charge of the vessel and take it to the designated port or harbour.<sup>239</sup>

Vessel monitoring systems (hereafter VMSs) are now being introduced worldwide as a means of increasing and improving MCS of fishing vessels in order to combat illegal fishing. The *LOSC* authorises coastal states to construct and use installations within the EEZ for the purpose of exercising its rights within the zone. The *Maritime Zones Act* provides for the application of South African law in respect of such installations.<sup>240</sup>

In addition to the monitoring value of a VMS, it can also be used for real-time fisheries management, and has direct application as a scientific tool. The VMS being tested in South Africa requires a small sophisticated satellite communication unit to be installed on a vessel. The unit reports independently via satellite to a base station giving frequent positions and can be programmed to identify vessel activities such as fishing, steaming or illegal shutdowns.<sup>241</sup> Due to limited resources, South Africa is still experimenting with the idea of VMS.<sup>242</sup>

Understaffing and use of an increasing number of ports and harbours have resulted in a sharp decline in the reliability of data. Accurate catch data and control of illegal fishing are essential components of resource assessment and quota control. Several examples of the value of VMS to South Africa may be given:<sup>243</sup>

- i. The offshore long-line fishery for Patagonian toothfish – this fishery, local and foreign vessels, operates within the local EEZ. Management and control of this fishery requires a tracking system that not only reports on the location and

---

237 S 53 *Marine Living Resources Act* 18 of 1998.

238 S 53 *Marine Living Resources Act* 18 of 1998.

239 S 53 *Marine Living Resources Act* 18 of 1998.

240 Dugard *International Law* 366-368.

241 White Paper: *Marine Fisheries Policy for South Africa* 1997.

242 Hutchings, Roberts and Verheye 2009 SAJS 189.

243 White Paper: *Marine Fisheries Policy for South Africa* 1997.

activity of the vessels, but also has a facility to give daily reports on the catches and catch rates.

- II. The foreign and local tuna longline fleets – large numbers of foreign vessels (distant water fleets of Japan and Taiwan) operate in and out of South African waters. There is currently no method of knowing the movements of these vessels and reported illegal fishing will continue to be unsubstantiated until such time as an effective monitoring system is introduced.
- III. Locally within the South African EEZ, there is likely to be a strong shift towards alternative fishing techniques, with a view to capacity building and greater utilisation of available resources.

In the 2012 *Vessel Monitoring Systems*, a clause has been incorporated, stating that the fishing permit holder's nominated fishing vessel shall be fitted with a functional vessel monitoring system.<sup>244</sup>

Strategies implemented to monitor resource use have resulted in an intensification of enforcement activities, but the task of reducing poaching remains a challenge. The Department relies heavily on the support and cooperation of the other law enforcement agencies. An increase in the number of patrols and investigations conducted has resulted in an increase in the number of cases registered, as well as confiscations. The Department has also developed a hake and abalone protection strategy which is aimed at rebuilding stocks and affording these key resources an opportunity to recover from overutilisation and ensure their sustainability. The monitoring, control and surveillance fleet now consists of four protection vessels, three of which (Lilian Ngoyi, Ruth First and Victoria Mxenge) have been built to patrol up to the 200 nautical mile limit, while the fourth vessel, the Sarah Baartman, patrols the more remote off-shore parts of South Africa.<sup>245</sup>

The 11 inspectors on board the Sarah Baartman included two officers each from Mozambique, Tanzania and Kenya. Inspection duties of the officers involved examining fishing gear, catches, logbooks, licences and permits aboard the fishing

---

244 9(1) *Permit Conditions for Tuna Longline Fishery: Fishing Season 2012/2013* Department of Agriculture, Forestry and Fisheries.

245 Anon 2010 <http://www.environment.gov.za>.

vessels. According to South Africa's Department of Environmental Affairs and Tourism (hereafter DEAT)<sup>246</sup>, the Sarah Baartman arrested two South African hake handline vessels approximately 30 nautical miles off Mossel Bay in the Western Cape for inadequate documentation. On the way back to South Africa, off the Durban coast, a Spanish fishing vessel was arrested and fined R300 000 for being in South African waters without a valid permit. The vessel was detained and will be released upon payment of the fine.<sup>247</sup> In 2008, however, the South African government confirmed that it had earned close to R12 million from chartering the offshore environmental protection vessel Sarah Baartman to Petro SA's Mossel Bay gas platform operations since 2005.<sup>248</sup>

At the beginning of 2012, it was discovered that the contracts for providing security along the coast between a company known as Smit Amandla Marine (SAM), a black empowered maritime services provider, and the Department of Agriculture, Forestry and Fisheries, dating back to 1995, were irregular.<sup>249</sup>

The company has been employed by the state to maintain its vessels since 1995. 'Contracts signed... were irregular and were deliberately drafted to have maximum benefit for [Smit Amandla Marine] amounting to approximately R1.6 billion to R2bn. The state had no protection in any of these contracts and the available evidence suggests complicity and corruption between government officials and [Smit Amandla Marine],...' On Monday, the fisheries' department had said: 'Evidence against [Smit Amandla Marine] and officials in [environmental affairs] and [Department of Agriculture, Forestry and Fisheries] is overwhelming, indicating widespread complicity, corruption, and deliberate entering of contracts unfavourable to the state.'<sup>250</sup>

The Ernst & Young forensic report confirmed substantial evidence regarding irregular contracts between Smit Amandla Marine and government officials between 1995 and 31 March 2012.<sup>251</sup>

The report revealed that the agreement between SAM and the Department, in 2005, failed to comply with the Tender Board regulations, departmental procurement policies, National Treasury Regulations, income tax regulations and the *Public*

---

246 The Department of Environmental Affairs has now separated from and Tourism.

247 Warby 2009 <http://www.southafrica.info>.

248 Yeld 2008 <http://www.feike.co.za>.

249 Knoetze 2012 <http://www.iol.co.za>.

250 Knoetze 2012 <http://www.iol.co.za>.

251 Galane 2012 <http://www.info.gov.za>.

*Finance Management Act*.<sup>252</sup> A contract extension, worth millions of rands, was granted by a mere letter, without any proof of any tender process followed or any supporting documentation.<sup>253</sup>

For instance, the contracts signed, particularly those signed in 2000, 2005 and 2010 were irregular and were deliberately drafted to have maximum benefit for SAM amounting to approximately R1.6 - R2 billion. The State had no protection in any of these contracts and the available evidence suggests complicity and corruption between government officials and SAM.<sup>254</sup>

This had the effect that another security company was appointed. But, once again, no tender opportunity was made public and the contract, worth R800 million, was awarded by Joemat-Pettersson to Sekumjalo, who was politically connected to Sekunjalo Consortium, to take over patrolling operations along the South African coastline.<sup>255</sup> A subsidiary of Sekunjalo, Premier Fishing, has fishing rights on the South African coast, representing a potential conflict of interests.<sup>256</sup> The contract has since been withdrawn, which means no security company now has the responsibility of patrolling and protecting the South African seas. The four marine patrol vessels were handed over to the South African Navy to manage,<sup>257</sup> together with the research vessels *Africana*, *Algoa* and *Ellen Khuzwayo*.<sup>258</sup> The navy will carry out these patrolling duties for a period of 12 months.

### 3.1.3 Law enforcement

South African courts are given jurisdiction over unlawful acts committed by persons on board a vessel within South African waters. In terms of the *Marine Living Resources Act*:

- 70.** (1) Any act or omission in contravention of any of the provisions of this Act which is committed—
- (a) by any person within South African waters;
  - (b) outside South African waters by any citizen of the Republic or any person ordinarily resident in the Republic; or

---

252 *Public Finance Management Act* 1 of 1999.

253 Galane 2012 <http://www.info.gov.za>.

254 Galane 2012 <http://www.info.gov.za>.

255 Anon 2012 <http://www.farmingportal.co.za>.

256 Anon 2012 <http://www.defenceweb.co.za>.

257 Anon 2012 <http://www.defenceweb.co.za>

258 Wingrin 2012 <http://www.defenceweb.co.za>.

- (c) by any person on board any local fishing vessel; shall be dealt with and judicial proceedings taken as if such act or omission had taken place in the territory of the Republic.
- (2) Any offence in terms of this Act shall, for purposes in relation to jurisdiction of a court to try the offence, be deemed to have been committed within the area of jurisdiction of the court in which the prosecution is instituted.
- (3) Notwithstanding anything to the contrary in any other Act, a magistrate's court shall have jurisdiction to impose any penalty prescribed by this Act.<sup>259</sup>

A factor to be considered is the use of punishment when there is a violation of rights protected in the EEZ. Namibia and the United States are but two of the countries whose courts have made rulings in this regard. These rulings may serve as an example to offenders that the violation of protected rights in any EEZ will not go unpunished.<sup>260</sup>

In *United States vs. Bengis* No 07-4895, officials from South Africa's Department of Environmental Affairs and Tourism discovered a refrigerated container in Cape Town Harbour containing 17 859 kg of rock lobster tails and 2 844 kg of Patagonian toothfish. Three years after this discovery, the group was charged with harvesting rock lobster and toothfish in violation of both South African law and the LOSC, altering and destroying catch documentation, bribing South African fisheries inspectors, and removing large quantities of rock lobster from the company's storage facility in Cape Town and concealing them from authorities.<sup>261</sup>

The district court further held that, even if restitution was permissible as a matter of law, "the complication and prolonging of the sentencing process resulting from the fashioning of the order of restitution under this section would outweigh the need to provide restitution to the Republic of South Africa." For the reasons that follow, we hold that South Africa: (1) has a property interest in rock lobsters unlawfully harvested from its waters, (2) is a victim for restitution purposes, as defined by the MVRA and VWPA, and (3) whatever the complexity in fashioning a restitution order in this case, it is insufficient to preclude entry of such an order under the MVRA. Accordingly, the judgments of the district court are VACATED and the case is REMANDED to the district court for further proceedings consistent with this opinion.<sup>262</sup>

---

259 S 70 *Marine Living Resources Act* 18 of 1998.

260 Dugard *International Law* 366-368.

261 Diane Deterring IUU fishing through state control over nationals 175.

262 *United States vs. Bengis* No 07-4895.

It was reported on 17 June 2013 that the US Court that heard the matter had ordered the accused to pay restitution to the South African government in the amount of R294 million.<sup>263</sup> The restitution granted by the court was the largest known restitution order in a *Lacey Act* of 1900 case in history. The *Lacey Act*<sup>264</sup> may be described as “a federal statute that makes it a crime to, among other things, import into the US any fish, wildlife, or plants taken in violation of state or foreign law”.<sup>265</sup>

Any person who fishes without the right licence or without any licence and any person who fishes in contravention of prescribed fishing or related activities shall be guilty of an offence and liable, on conviction, to a fine not exceeding two million rand, or to imprisonment for a period not exceeding five years.<sup>266</sup>

When a fishing vessel, vehicle or aircraft is taken, seized or detained in terms of the *Marine Living Resources Act*,<sup>267</sup> and judicial proceedings are instituted in respect of an offence for which the vessel has been detained, the master, owner, charterer or agent of the owner or the charterer of the vessel, vehicle or aircraft may at any time apply to the court, which will hear the matter for the release of the vessel, vehicle or aircraft on the provision of security in terms of this section.<sup>268</sup>

### **3.2 Conclusion and recommendations**

The tools and strategies that South Africa currently has to minimise and stop IUU fishing include:

- I. The latest vessel monitoring systems, which can plot the location, speed and fishing patterns of each fishing vessel in our waters;
- II. State-of-the-art patrol vessels to protect our 1,5 million square km of EEZ;
- III. Strategic compliance partnerships with the Scorpions, the South African Police Services (SAPS), the criminal justice system, local governments and conservation bodies;

---

263 Dolley 2013 <http://www.iol.co.za>.

264 *Lacey Act* of 1900

265 Dolley 2013 <http://www.iol.co.za>.

266 S 58 *Marine Living Resources Act* 18 of 1998.

267 *Marine Living Resources Act* 18 of 1998.

268 S 62 *Marine Living Resources Act* 18 of 1998.

- IV. Cooperation and close working relations with the South African Revenue Services (SARS) and the South African Bureau of Standards (SABS) to monitor quantities of fish stocks exported.<sup>269</sup>

The problem with all these tools, however, is that they only prove their worth after the fish has been poached.<sup>270</sup>

What is required is a paper trail linking the exporter to the fishing boat that landed the fish. The solution is a triad of tools. The first is what we have termed a 'sales note' which must be deposited with Marine and Coastal Management by the first purchaser of fish landed. The second is the introduction of a fish bourse, which is aimed at empowering particularly smaller quota holders to obtain market-related prices for their fish in a transparent trading system. Thirdly, the Marine and Coastal Management needs to implement electronic permitting and licensing processes and move away from its current, outdated system of "apply, collect and pay for your permit in Cape Town only", which is extremely costly and inefficient, particularly to small quota holders.<sup>271</sup>

South Africa will have to consider reinstating environmental courts. In 2003, South Africa initiated the first Environmental Court in Hermanus.

The court's first cases were heard within three months of the decision for its establishment. In its first year the court heard 74 cases, of which 51 resulted in successful prosecutions. This translated into a 70% success rate, dramatically increasing the number of convictions for environmental crimes.<sup>272</sup>

Despite its exemplary three-year record, the court was closed in 2006 due to the unwillingness of the Department of Justice and Constitutional Development to resource a specialised court that was not mandated by specific legislation.<sup>273</sup> Currently environmental courts are being established in South Africa, but only to address water crimes that threaten an already water-stressed country. No reference has been made to the protection of fish resources.<sup>274</sup> Certain changes are also proposed to strengthen the enforcement aspects of the *Sea Fisheries Act*. These

---

269 Moolla 2006 <http://www.illegal-fishing.info>.

270 Moolla 2006 <http://www.illegal-fishing.info>.

271 Moolla 2006 <http://www.illegal-fishing.info>.

272 Rosencrans 2010 [www.traffic.org](http://www.traffic.org).

273 Paterson and Kotzé *Environmental Compliance* 98.

274 Rosencrans 2010 [www.traffic.org](http://www.traffic.org).

include increasing the penalties available and increasing the powers of fisheries inspectors, introducing provisions on the use of evidence gained from vessel monitoring systems, as well as the inclusion of a new offence of failure to stow fishing gear correctly.<sup>275</sup>

South Africa still faces many challenges with respect to the successful implementation of fisheries co-management, but there have been some successes. The province of KwaZulu-Natal (KZN), for example, has implemented a provincial policy of establishing co-management arrangements as a means of effectively managing subsistence fisheries. In the case of the commercial industry, prior to the uncertainty that emerged as a result of the reallocation of rights, a long-term co-management arrangement existed for 16 years in the hake fishery. This partnership arrangement involved institutionalised industry-government consultations and produced high levels of compliance. Although government has acknowledged a role for co-management in South African fisheries, outside KZN there has been little implementation. A number of possible reasons for this have been identified, but they particularly emphasise the lack of political will and commitment on behalf of national government to initiate and sustain fisheries co-management.

Hout Bay Harbour, to date, has been one of the largest and most important fishing harbours in South Africa, but it is in a shocking state of disrepair and now a preferred thoroughfare for abalone and lobster poaching; the harbour is littered with abandoned and sunken vessels; crime in the harbour is so rife that unprotected vessels are stripped bare overnight; many of the fish-processing buildings stand vacant and appear derelict.<sup>276</sup>

It is just sensible that local development plans (focusing on local economic opportunities, job creation, tourism, etc.) will best complement and support any regeneration strategy for the fishing harbours and communities adjacent to them.<sup>277</sup>

The Department<sup>278</sup> should therefore adopt short-, medium- and long-term perspectives, realising that processes of development are difficult and complex, and that they take time. Long-term management plans should include operational

---

275 White Paper: *Marine Fisheries Policy for South Africa* 1997.

276 Moolla 2012 <http://feikemanagement.blogspot.com>.

277 Moolla 2012 <http://feikemanagement.blogspot.com>.

278 Department of Agriculture, Forestry and Fisheries.

management procedures and must be developed and published to ensure optimal utilisation of all significant marine resources.<sup>279</sup> These plans will:

- be developed through a cooperative process involving all interested parties
- be binding, though with procedures to allow amendments
- include appropriate and cost-effective monitoring and control programmes and strict enforcement of fishing regulations
- consider the socio-economic implications of altered levels of utilisation (e.g. the effect of a reduced *TAC* on employment).<sup>280</sup>

Operational management procedures must be based on scientific principles that recognise the inherent variability of resources and the interdependence of the components of marine ecosystems. There has been no comprehensive assessment of the status of marine species, but evidence has shown that they have been heavily impacted by extraction. Some 22 fishery species were identified as threatened in 2000 and in 2009, the South African line fishery was declared to be in a state of emergency due to the collapse of stocks of 10 line fish species.<sup>281</sup> More than 630 species are caught by commercial, subsistence and recreational fisheries in South Africa. There is only stock status available for six per cent (41 species) of all the fish species within South African waters. To date it is believed that 23 of those species are threatened and 61 per cent (25 out of 41) are overexploited.<sup>282</sup> This is a clear indication of South Africa's failure to gather the necessary information to protect the fish resources within its own marine waters.

The role of fisheries research is to produce the necessary knowledge base for government to conduct effective fisheries management and produce a favourable environment for fisheries development. Multidisciplinary inputs of knowledge are needed, both concerning the resource base of the fisheries and the social, economic and cultural contexts of fisheries and fisheries development. Therefore, research on management systems should play an important role in the development of fisheries

---

279 White Paper: *Marine Fisheries Policy for South Africa* 1997.

280 White Paper: *Marine Fisheries Policy for South Africa* 1997.

281 Tunley 2009 <http://awsassets.wwf.org.za>.

282 Sink *et al* "National Biodiversity" 8-10.

management in the future. It is crucial that research on the resource base and socio-economic aspects be integrated in such projects. There is a general need for better integration of all research closely linked to fisheries management or development issues.<sup>283</sup>

Fishery control officers monitor landed fish at harbours, slipways and fish-processing establishments on an on-going basis to ensure that permit holders comply with their permit conditions and declare all their catches. The problem, however, is that in South Africa, the monitoring vessels used by the fishery control officers have been handed over to the navy and it is not clear how the fishery control officers will be able to perform their duties. Van Dalen expresses his concerns:

[Notwithstanding] the navy operating and maintaining the patrol vessels, we believe that research and law enforcement pertaining to marine resources must remain essentially civilian. Clarity must therefore be provided on how fishery control officers and researchers will be permitted to function on board naval vessels.<sup>284</sup>

By transferring the authority to conduct compliance activities to a provincial or local level, particularly when linked to local access rights, the opportunity exists to establish a sense of local ownership of a particular area and its resources. Furthermore, by allowing decision-making at a local level, rather than in distant national offices, a more integrated approach to compliance can be implemented more effectively.

In addition to these developments, in particular over the past five years, two significant challenges still remain to be addressed. The first is the prioritisation of voluntary compliance as integral to achieving overall compliance objectives (which requires political will, funding and personnel). The second is the effective implementation of policies that require long-term equitable access to resources.<sup>285</sup>

Closing the trade and catch loopholes is undoubtedly the key tool for successfully fighting IUU fishing. Trade in South African fish is largely unregulated. South African authorities cannot, for example, confirm how much hake or toothfish or

---

283 White Paper: *Marine Fisheries Policy for South Africa* 1997.

284 Van Dalen 2012 <http://www.da.org.za>

285 White Paper: *Marine Fisheries Policy for South Africa* 1997.

abalone was exported in 2005 or by whom.<sup>286</sup> KwaZulu-Natal, however, has set an example on closing the loopholes on netting:

The loopholes which were being exploited by Durban seine netters have been closed, stopping them from using motorboats or going out at night... 'The laws are set by the Department of Agriculture, Forestry and Fisheries. We are here to manage and enforce the Marine Living Resources Act. The new conditions will now provide for sustainable fishing and not for the marine resources to be exploited,' he said. Permits are valid for a year from March 2012.<sup>287</sup>

Trade loopholes are an international issue, as can be seen from the fact that more than 20 per cent of the world's catches are IUU. The international nature of trade loopholes is also the reason for the confusion about who has responsibility to address these contraventions and offences. In 2009, a conference was held in Rome on an *Agreement On Port State Measures To Prevent, Deter And Eliminate Illegal, Unreported And Unregulated Fishing*.

Port State Measures (PSM) are requirements established or interventions undertaken by port states which a foreign fishing vessel must comply with or is subjected to as a condition for use of ports within the port state. National PSM would typically include requirements related to prior notification of port entry, use of designated ports, restrictions on port entry and landing/transshipment of fish, restrictions on supplies and services, documentation requirements and port inspections, as well as related measures, such as IUU vessel listing, trade-related measures and sanctions. Many of these measures have in recent years seen their inclusion and development in international instruments.<sup>288</sup>

Under the terms of the abovementioned treaty,<sup>289</sup> foreign vessels will provide advance notice of and request permission for port entry, countries will conduct regular inspections in accordance with universal minimum standards, offending vessels will be denied use of ports or certain port services, and information-sharing networks will be created. This is also an example of closing trade loopholes, since coastal countries will be able to work together, sharing information and stopping illegal fishing and the trade in it. Co-management between international parties is very important. There has to be a strengthening of international and regional

---

286 Moolla 2006 <http://www.illegal-fishing.info>.

287 Nair 2012 <http://www.iol.co.za>.

288 Food and Agriculture Organization Management 2010 <http://www.fao.org>.

289 Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing 6-7.

partnerships, which highlights South Africa's role in the protection of national, regional and international resources.<sup>290</sup>

---

290 White Paper: *Marine Fisheries Policy for South Africa* 1997 1-4.

#### 4 Australian rules and regulation

Australia has had similar problems to South Africa regarding IUU fishing some years ago,<sup>291</sup> but now has a very good success rate combating such offences.<sup>292</sup> This chapter will consider Australia's methods of combating IUU fishing in the EEZ. In this chapter, their legislative measures concerning allocation of fishing areas, fishing permits and marine officers, and their courts' jurisdictions will be analysed. Other methods that they use to protect their sea zones that could possibly work for South Africa will also be investigated.

Australia is a country which, like South Africa, is partner to all the international sea laws and treaties, for example the *LOCS*,<sup>293</sup> *Agenda 21*<sup>294</sup> and *FOA*.<sup>295</sup> It is also a member of key organisations that are prioritising IUU fishing. One such example is the Organisation for Economic Cooperation and Development (hereafter OECD), which suggests that IUU fishing activities must be rendered unprofitable through reducing revenues, reducing the value of catches and increasing costs of IUU vessels.<sup>296</sup>

Australia's vast ocean domain is made up of 16 million km<sup>2</sup> of ocean, an area twice the size of the continent's land mass. Australia's Fishing Zone (hereafter AFZ) comprises 8.94 million km<sup>2</sup> and includes the waters surrounding the offshore territories of the Cocos, Christmas, Norfolk, Macquarie, Heard and McDonald Islands. Legal fishing activities at the *Commonwealth's Maritime Legislation Amendment Act 1994* level are monitored by the Department of Agriculture, Forestry and Fisheries (hereafter DAFF), the Australian Fisheries Management Authority (hereafter AFMA) and by individual states and territory fisheries agencies under the *Offshore Constitutional Settlement (OCS)*.<sup>297</sup>

On 1 August 1994, Australia declared an EEZ extending 200 nm from its coastline. Within the EEZ, Australia has sovereign rights to explore and exploit, conserve and

---

291 Illegal fishing was the main concern of maritime surveillance in the late 1960s and early 1970s.

292 Bateman 2007 *Security Challenges* 111.

293 Vince 2007 *Ocean & Coastal Management* 686.

294 Vince 2007 *Ocean & Coastal Management* 687-688.

295 Vince 2007 *Ocean & Coastal Management* 689.

296 Vince 2007 *Ocean & Coastal Management* 695.

297 Vince 2007 *Ocean & Coastal Management* 683.

manage the living natural resources like fish and non-living natural resources like oil, gas and minerals. It also has jurisdiction over offshore installations, marine scientific research and the protection and preservation of the marine environment.<sup>298</sup>

The AFZ, which was first declared in 1979, is exactly the same as the EEZ, but relates only to the use or protection of fisheries, whereas the EEZ relates to all types of resources in that zone. Also, under the EEZ regime, where the edge of the continental shelf of Australia extends beyond 200 nautical miles, Australia has the right to explore and exploit the non-living resources as well as sedentary fisheries species in this area.<sup>299</sup>

On average, Australia annually apprehends and successfully prosecutes approximately 100 foreign fishing vessels operating inside the AFZ. However, it should be noted that there are significantly more sightings where effective responses cannot be mounted due to the size of the AFZ (third largest in the world), and a lack of response resources in the immediate vicinity of the sighting.<sup>300</sup>

Australia's intention to declare an EEZ was announced in 1991 and was formally proclaimed following ratification of the *LOSC* in 1994. Australia's EEZ is the third largest in the world and the *LOSC* provides Australia with sovereign rights over living and non-living resources within its boundaries. The Commonwealth did maintain that the continental shelf regime and AFZ should be kept separate from the EEZ. Although the fishing zone and the EEZ are identical in area, the definitions were kept separate to avoid unnecessary amendments to legislation. The new contiguous zone and the EEZ were applied through the *Commonwealth's Maritime Legislation Amendment Act 1994*.<sup>301</sup>

A comparison will be drawn between Australian maritime law regarding the prevention of IUU fishing and that of South Africa. This will comprise an in-depth analysis of how Australia controls the allocation of fishing rights and permits, fishing methods, seasons, areas and fishery control officers and Australian courts' jurisdiction regarding local and foreign offenders in Australian waters.

---

298 Department of Agriculture, Forestry and Fishery 2011 <http://www.daff.gov.au>.

299 Department of Agriculture, Forestry and Fishery 2011 <http://www.daff.gov.au>.

300 Davis "Monitoring Control Surveillance" 2.

301 Vince 2007 *Ocean & Coastal Management* 686.

## 4.1 Fishing rights and permits

According to Australian law, statutory fishing rights include the right to take a particular quantity of fish,<sup>302</sup> the right to engage in fishing<sup>303</sup> and to use a boat,<sup>304</sup> and the right to use particular fishing equipment.<sup>305</sup>

The granting of a fishing permit may be refused if AFMA has reason to believe that a requirement of a law of the Commonwealth, or of a State or Territory, has not been met in relation to the boat.<sup>306</sup> A fishing permit may be authorised for the use of a boat for commercial fishing, recreational fishing or the carrying, processing and testing of fishing equipment.<sup>307</sup> The following conditions must be met before a fishing permit will be granted:

- (a) if the fishing permit authorises fishing in a specified managed fishery – the holder of the permit must comply with any obligations imposed by, or imposed by AFMA under, the relevant plan of management on the holder of such a fishing permit;
- (b) if the fishing permit authorises fishing in a specified managed fishery – the permit will cease to have effect if the plan of management for the fishery is revoked under subsection 20(3);
- (c) if the fishing permit may, under subsection 75(7), cease to have effect or, under subsection 79(3), cease to apply to a fishery;
- (d) if the fishing permit may be cancelled under section 39;
- (e) if no compensation is payable because the fishing permit is cancelled, ceases to have effect or ceases to apply to a fishery.<sup>308</sup>

The fishing permit may be limited by imposing conditions related to the quantity of fish that may be taken, the rate at which fish may be taken, or the type and method of equipment used to take and process fish.<sup>309</sup>

Permits may be transferred to another person and take effect when AFMA registers the transfer.<sup>310</sup>

---

302 S 21(1)(a) of the *Australian Fisheries Management Act 1991*.

303 *Australian Fisheries Management Act 1991* s 21(1)(c).

304 *Australian Fisheries Management Act 1991* s 21(1)(d).

305 *Australian Fisheries Management Act 1991* s 21(1)(e).

306 *Australian Fisheries Management Act 1991* s 32(3).

307 *Australian Fisheries Management Act 1991* s 32(4).

308 *Australian Fisheries Management Act 1991* s 32(5).

309 *Australian Fisheries Management Act 1991* s 32(7).

310 *Fisheries Management Act 1991* s 32A(1)-(3).

The fishing permit may be suspended by a marine officer if there are reasonable grounds to believe that the holder of this permit has been acting in contravention of this Act or has given false or misleading information to AFMA during an investigation.<sup>311</sup> The permit will be cancelled when the holder is convicted of any offence in terms of this Act.<sup>312</sup>

To be able to apply for a permit, the applicant also needs a fishing vessel licence that is granted by seeking registration in Australia. According to some authors, this is a problem, since the registration of fishing vessels is not mandatory in many countries and therefore serves a very limited filtering role in preventing IUU fishing activities.<sup>313</sup>

The Australian and South African laws regarding fishing permits and licences are similar. Both countries make use of the granting of permits and Australia has already begun using vessel seeking registration. South Africa, however, does not yet make use of seeking registration and thus the granting of fishing vessel licences that can be traced.

#### **4.2 Fishing methods, seasons, areas and fishery control officers**

After analysing the Australian legislation regarding fishing methods, seasons, areas and fishery control officers, a comparison will be drawn between the Australian and South African legal positions. This will be done in order to establish whether or not the Australian model could serve as an example of how these aspects could effectively be regulated in South Africa.

##### *4.2.1 Fishing methods*

Driftnet means a gillnet or other net or a combination of nets that are more than 2.5 km in length, or such shorter length as is prescribed, the purpose of which is to enmesh, entrap or entangle fish by drifting on the surface of or in the water.<sup>314</sup> According to the *Australian Fisheries Management Act*, the use of driftnets and driftnet fishing activities relate to:

---

311 *Fisheries Management Act* 1991 s 38(1).

312 *Fisheries Management Act* 1991 s 39(1).

313 Schmidt "Addressing IUU Fishing" 8.

314 *Fisheries Management Act* 1991 s 13(5).

- (a) taking fish with the use of a driftnet; or
- (b) engaging in any other activity that can reasonably be expected to result in the taking of fish with the use of a driftnet, including searching for and locating fish to be taken by that method; or
- (c) any operations at sea in support of, or in preparation for any activity described in this definition, including operations of placing, searching for or recovering fish aggregating devices or associated electronic equipment such as radio beacons; or
- (d) aircraft use relating to the activities described in this definition except for flights in emergencies involving the health or safety of crew members or the safety of a boat; or
- (e) transporting, transshipping and processing any driftnet catch, and co-operation in the provision of food, fuel and other supplies for boats equipped for or engaged in driftnet fishing.<sup>315</sup>

Section 13(1) of the *Australian Fisheries Management Act* 1991 makes it clear what the penalties are for a person caught driftnetting in the AFZ.<sup>316</sup> The law also prescribes what fish may not be caught by any person in a specific area; for example, no person is allowed to catch black cod in the AFZ.<sup>317</sup> Apart from that, no person may catch black marlin or blue marlin, unless that person is a holder of a scientific permit or the fish is taken in the course of recreational fishing.<sup>318</sup>

Pertaining to driftnet fishing, South Africa has the same restrictions as Australia, but a few other prohibited fishing methods are stipulated in South African legislation.<sup>319</sup> The two jurisdictions differ in that Australian legislation provides for the protection of specific species of fish, whereas South African legislation does not.

#### 4.2.2 *Fishing seasons and fishing areas*

In terms of section 17 of the *Australian Fisheries Management Act*,<sup>320</sup> the AFMA may determine management plans for fisheries, which includes the right to allocate seasons and areas for fishing. Australia has different laws and regulations regarding different fish species. For example, section 11(1) of the *Western Tuna and Billfish*

---

315 *Fisheries Management Act* 1991 s 13(5).

316 *Fisheries Management Act* 1991 s 13(1).

317 *Fisheries Management Act* 1991 s 15(1).

318 *Fisheries Management Act* 1991 s 15A(1).

319 See chap 3 par 3.2.

320 *Australian Fisheries Management Act* 1991 s 17.

Fishery Management Plan 2005<sup>321</sup> provides that AFMA must determine a total allowable commercial catch (hereafter TACC) for each quota species for the fishing year before the fishing season commences. Sections 11(1)(a) and 11(1)(b)<sup>322</sup> also provide that AFMA must determine a percentage (the 'determined percentage') and weight (the 'determined weight') during the course of the season, for the purpose of applying the overcatch provisions and undercatch provisions to individual holders who exceed their quota for the season.

AFMA has established a process whereby they initiate a review which provides a background on particular fisheries.<sup>323</sup> This review is made available to the public for comments, and afterwards assessed by officers from the Sustainable Fisheries Section of the Commonwealth Department of the Environment, Water, Heritage and Arts (hereafter DEWHA). They advise the minister responsible for the fisheries management agency and the assessment report is published.<sup>324</sup> This process of determining the fishing areas and quotas has been under severe pressure from Australian authors. In theory, the Commonwealth Minister for Environment could refuse the proposed fishing areas and quotas, but from the fact that every proposed fishing area and quota has been approved by the Commonwealth, it is clear that an unwritten policy has been established, encouraging the allocation of fishing areas and quotas.<sup>325</sup>

South Africa also has a process to determine fishing seasons and areas.<sup>326</sup> Australia has legislation regarding different fish species that South Africa does not have. South Africa does, however, make it clear that the Minister may allocate fishing seasons and areas and that they must be adhered to.

#### 4.2.3 *Fishery control officers*

Australian fishery control officers may board a boat in the Australian waters, AFZ, and external territory. Officers may also board any boat they have reasonable

---

321 *Fisheries Management Act 1991* subsection 17(6)(aa) *Western Tuna and Billfish Fishery Management Plan 2005*.

322 *Fisheries Management Act 1991* subsection 17(6)(aa) *Western Tuna and Billfish Fishery Management Plan 2005*.

323 Nevill "Overfishing under regulation" 196.

324 Nevill "Overfishing under regulation" 196.

325 Nevill "Overfishing under regulation" 197.

326 See chap 3 par 3.4.

grounds to believe is being used or is intended to be used for fishing in the AFZ. Officers may search the boat for fish, equipment that has been used or is intended to be used to catch the fish or for any document or record relating to the fishing operations of this boat. They may break open any hold or container on the boat that the officer has reasonable grounds to believe contains anything that may afford evidence as to the commission of an offence in terms of this Act. The officers may search any person on board a boat that they reasonably suspect to be a foreign boat and used in offences in terms of this Act, without a warrant.<sup>327</sup> Anything that may be in contravention of the *Commonwealth Act* may be forfeited and seized by the officers. These include nets, traps, other equipment and fish.<sup>328</sup>

If an officer believes that a boat is being used in contravention of the Act, the officer may take control of the boat and require the master of the boat to take the boat to another locality in Australian territory, or the sea where the boat must remain until the officer permits the master to depart from that location.<sup>329</sup> The master of the boat may also be required to produce any fishing concession, treaty licence or evidence of a grant of any such concession or licence in respect of the boat.<sup>330</sup>

In an effort to prevent illegal fishing, any person on land may be required to provide information regarding fish found in his or her position.<sup>331</sup> This would:

- (s) require a person found on any land or premises entered under paragraph (d) or in any vehicle or aircraft detained or searched under paragraph (e):
  - (i) to state the person's name and address; or
  - (ii) to produce any documents in the person's possession or under the person's control relating to any fish found on the land or in the premises, vehicle or aircraft; or
  - (iii) to give information concerning any such fish; and
- (t) sell or otherwise dispose of any fish seized by him or her under this Act.

A seizure notice is provided to the master of the fishing vessel, outlining the details of the vessel seizure and the process for a legal challenge to that seizure.<sup>332</sup> Any

---

327 *Fisheries Management Act* 1991 s 84(1)(a).

328 *Fisheries Management Act* 1991 s 84 (1)(g)(b).

329 *Fisheries Management Act* 1991 s 84(1)(k).

330 *Fisheries Management Act* 1991 s 84(1)(n).

331 *Fisheries Management Act* 1991 s 84(1A)(s)-(t).

332 Wilson and Tomkins "The Australian Approach to Combating" 78-79.

crew not charged with fishing offences are held in detention pending removal from Australia. Fishers who are charged remain in detention in Australia until the case is finalised.

In 2006, the Australian Defence Minister stated that Australian forces could fire onto a foreign vessel to force the vessel to stop if circumstances justified this action. The commander of a customs vessel may issue approved firearms and other items of personal defence equipment to officers of customs under his or her command.<sup>333</sup> This, however, carries a high risk of wounding or killing persons on board.<sup>334</sup>

There are three principal, although not exclusive, pieces of legislation governing Australia's fisheries laws that are set out in the *Fisheries Management Act* No. 162 of 1991, *Torres Strait Fisheries Act* No. 23 of 1984 and the *Fisheries Administration Act* No. 161 of 1991. Those laws then exist in a wider context of international treaties, including UNCLOS. Australia's legislation also has regard for the Agreement on *Cooperative Enforcement of Fisheries Laws* between the Government of Australia and the Government of the French Republic in the Maritime Areas adjacent to the French Southern and Antarctic Territories, Heard Islands and the McDonald Islands, which was concluded in Paris on 8 January 2007.<sup>335</sup> To help enforce this agreement, international officers are employed. They may, for purposes of conducting cooperative enforcement, exercise any of the powers of an officer as stated above.<sup>336</sup>

Any officer may pursue a boat without interruption from a locality outside the AFZ to a locality outside the Australian territory.<sup>337</sup> The officer must refrain from using force in exercising his or her powers, unless he or she is unable to ensure his or her own safety or the safety of other officers or to overcome obstruction of an officer in the exercise of that officer's powers.<sup>338</sup> The force used must not exceed that which is reasonably required for the relevant purpose.<sup>339</sup>

---

333 *Australian Fisheries Management Act* 1991 s 84C (1).

334 White and Forrest *Law Update* 300.

335 *Australian Fisheries Management Act* 1991 s 84B (1).

336 *Australian Fisheries Management Act* 1991 s 84B (2).

337 *Australian Fisheries Management Act* 1991 s 87(1C)(a-b).

338 *Australian Fisheries Management Act* 1991 s 87J(1).

339 *Australian Fisheries Management Act* 1991 s 87J(2).

The South African and Australian legislation regarding the rights and duties of marine control officers is very similar. In both countries, these officers are given the right to search and seize fishing vessels, equipment and fish caught. In both countries, they are also allowed to use force if necessary and to pursue a fishing vessel that has acted in contravention of its laws. South African legislation does not make reference to duties of officers regarding treaties that South Africa may have with other countries to protect fish resources. Australian legislation is clear on the rights and duties of officers working under the treaty between the two countries.

In Australia, the penalties (especially fines) imposed by law are considered to have little impact on deterring IUU fishing activities, compared to the high values of IUU catches;<sup>340</sup> therefore, they have started using other methods to try and combat illegal fishing. Two private initiatives have been particularly successful in combating IUU activities in their respective areas of operation, namely the Coalition of Legal Toothfish Operators (hereafter COLTO) and the Organisation for the Promotion of Responsible Tuna Fisheries (OPRT).<sup>341</sup>

As an international alliance of legal fishers, formed to eliminate illegal fishing for toothfish, COLTO is committed to working with governments, conservation groups and the general public, to highlight the need for urgent action to combat illegal and unregulated toothfish poachers. COLTO, based in Australia, has launched an international 'Wanted' reward scheme in 2003. The Coalition is offering up to USD100 000 for information leading to the conviction of illegal fishers and companies.<sup>342</sup>

Australia also makes use of monitoring control surveillance systems. (VMS) has been implemented in several of Australia's largest fisheries, where the technology is used for aerial and marine surveillance to ensure compliance, and to act as a significant deterrent to illegal operations.<sup>343</sup>

MCS measures applied to Australian domestic fishers rely heavily on the use of technology and the cross auditing of catch and landing documentation with information provided electronically. In fisheries managed by the use of output

---

340 Schmidt "Addressing IUU Fishing" 8.

341 Schmidt "Addressing IUU Fishing" 8.

342 Schmidt "Addressing IUU Fishing" 8.

343 Davis "Monitoring Control Surveillance" 3.

controls, fishers are required to lodge a *prior to landing report* (emphasis added) to AFMA via telephone, radio or Inmarsat C. This report is also transmitted to fisheries officers' pagers or mobile phones (using the short message service) to inform officers of the time and date of the vessels' arrival in port and unloading time as well as the estimated catch of the key species. In fisheries that are subject to more than one jurisdiction, fishers are also required to lodge a pre-departure report to inform authorities which jurisdiction they are planning to fish in for the trip.<sup>344</sup>

### **4.3 Law enforcement**

The 1994 declaration by Australia of an EEZ has raised a number of legal issues. With respect to fisheries management, Australia has now had some experience in enforcing its AFZ claim. The management regimes created by both the previous Fisheries Act 1952 and now the Fisheries Management Act 1991 provided for joint Commonwealth-State cooperation in managing fishery resources within the AFZ consistent with the OCS.<sup>345</sup>

This cooperative management approach remains in place under the new EEZ regime. The 1994 amendments to the *Fisheries Management Act* do not replace the concept of an AFZ, but instead provide that the AFZ is now to be defined consistently with the EEZ.<sup>346</sup> The *Australian Fisheries Management Act* also provides for an enforcement regime, not only for Australian nationals and flagged boats, but also for foreign nationals and boats.<sup>347</sup>

The *Australian Fisheries Management Act* 1991 provides for the automatic forfeiture of foreign boats, catch and equipment, if used in the commission of an offence in the AFZ. As a result, Australian courts no longer adjudicate the forfeiture of the boat as a penalty, unless the owner or master disputes the forfeiture, and is prepared to bring legal action against the Australian government to have the boat returned to the owner. This arrangement separates the criminal processes (prosecution of the fisheries offence against master and crew) from the processes dealing with the boat, since forfeiture of property (such as boats) is automatic under this Act, whereas for criminal offences, monetary penalties are still applicable. In the event of seizing forfeited property, a notice must be issued to the master of the boat, advising that the property (boat, catch and/or equipment) is forfeited.<sup>348</sup>

---

344 Davis "Monitoring Control Surveillance" 3.

345 Rothwell and Haward 1996 *Marine Policy* 42-44.

346 Rothwell and Haward 1996 *Marine Policy* 54.

347 Rothwell and Haward 1996 *Marine Policy* 42-44.

348 Wilson and Tomkins "The Australian Approach to Combating" 78-82.

The notice outlines a process that allows for the owner or master to make a claim for the forfeited property to be returned. If a claim is not made within 30 days, the property is regarded as forfeited and may be disposed of in accordance with the direction of the Minister responsible for fisheries, who in turn has delegated that power to AFMA officials. Disposal options include sale or destruction.<sup>349</sup>

According to article 73(2) of UNCLOS, '[a]rrested vessels and their crews shall be promptly released upon the posting of reasonable bond or other security'. Although Australia has ratified UNCLOS, only *parts* of UNCLOS, such as the FMA, have been incorporated into Australian municipal law by legislation.<sup>350</sup>

This point is relevant because, under Australian constitutional law, it may be said that generally 'provisions of an international treaty to which Australia is a party, do not form part of Australian law, unless those provisions have been validly incorporated into their municipal law by statute'.<sup>351</sup> The result of this law is that, when a foreigner is apprehended in Australia, his or her right to return to his or her home country may be refused, even though international law states that a foreigner must be returned to his or her home country.<sup>352</sup>

As stated earlier, UNCLOS prohibits imprisonment as a penalty for violation of fisheries laws in the EEZ and the Australian government has interpreted this as only applying to the EEZ beyond the territorial sea. As a result, the government argues that there is no prohibition against imprisonment as a penalty for offences in the territorial sea and so it has passed this legislation. Under the Act, these are 'strict liability' offences, which means that the intention of the accused is not relevant to guilt or innocence.<sup>353</sup>

There was never any doubt, of course, that any coastal state had jurisdiction over its territorial sea. In the 2006 amendment to the *Australian Maritime Law*, section 47, the Australian authorities are given express legislative jurisdiction in the EEZ as well

---

349 Wilson and Tomkins "The Australian Approach to Combating" 79-80.

350 White and Forrest *Law Update* 255.

351 White and Forrest *Law Update* 256.

352 White and Forrest *Law Update* 256.

353 White and Forrest *Law Update* 304.

as the high seas ('or elsewhere' is the term used).<sup>354</sup> These powers include the right to give directions to the owners or operators of the ship, any facility or asset, et cetera, with regard to when and where to move their vessels. This legislation also includes the protection of officials involved as well as those persons to whom they give directions against criminal and civil actions.<sup>355</sup>

Australia adopted UNCLOS by incorporating part of this legislation, by which they are now bound, and by interpreting the remainder in such a way that they made it their own. South Africa, on the other hand, copied and pasted UNCLOS into their legislation, making its interpretation very difficult, because it is now seen as South African law. South Africa made no attempt to widen its jurisdiction in the EEZ, like Australia did before incorporating UNCLOS in their law, with the result that South Africa has very limited jurisdiction over its EEZ in comparison to Australia.

#### **4.4 Conclusion and recommendations**

South African and Australian legislation regarding use of the sea and the different methods to control and protect the sea resources do not differ markedly. Both countries have laws regulating the process before fish are caught (licences and permits to catch fish), the fishing process (fishing areas, seasons and species allowed to be caught) and the process of enforcing those rights and duties (marine control officers and jurisdiction of the courts). If the laws are not that different, the question is, why does Australia have so much more success in stopping illegal fishing?

Fishers are required to complete daily or shot-by-shot logbooks where the catch is estimated by species. On return to port, a Catch Disposal Record (hereafter CDR) is completed before the fish are moved more than 50 metres from the boat. The licensed first receiver of the fish then verifies the weight of the catch by species. AFMA is currently using trailing electronic scales at the docks to verify the landed catch at the time of unloading. The development of this technology is intended to

---

354 White and Forrest *Law Update* 305.

355 White and Forrest *Law Update* 305.

ensure timely, cost-effective monitoring and to encourage market chain integration.<sup>356</sup>

Securing Australia's maritime approaches requires a mix of capabilities for surveillance, patrol and response: ships, aircraft and systems.<sup>357</sup> The main surveillance capability is provided by Bombardier Dash 8-202 aircraft fitted with a range of sensors and capable of patrolling up to 100 nm beyond the EEZ.<sup>358</sup> Australia also has approximately 50 official vessels that are used to protect its sea zones.<sup>359</sup>

Australia further makes use of a *Maritime Information System*: Maritime domain awareness (hereafter MDA) is an integrated approach to maritime security, in order to meet the threats of maritime terrorism, illegal immigration, drug smuggling, illegal fishing and marine pollution. The Maritime Information System is used to answer basic questions that may exist relating to the maritime surrounds.<sup>360</sup>

The *Maritime Information System* will provide MDA of Australia's maritime approaches, covering up to 1 000 nautical miles from Australia's coastline. When entering this 1 000 nm, vessels proposing to enter Australian ports will be required to provide comprehensive information on ship identity, crew, cargo, location, course, speed and intended port of arrival. Within Australia's EEZ, the aim will be to identify all vessels, other than day recreational craft.<sup>361</sup>

Australia makes use of many different methods to help control and protect its sea zones, for example the latest technology (VMS), boats, aircraft and information systems. Their legislation regarding the sea zones may not differ significantly from South African legislation, but their methods of implementation do. If South Africa took note of Australian methods of implementation, and incorporate them into their own plans and methods to help stop IUU fishing, their success rate could also improve.

---

356 Davis "Monitoring Control Surveillance" 3.

357 Bateman 2007 *Security Challenges* 122.

358 Bateman 2007 *Security Challenges* 123.

359 Bateman 2007 *Security Challenges* 122.

360 Bateman 2007 *Security Challenges* 124.

361 Bateman 2007 *Security Challenges* 125.

## 5 Conclusion

The world's fish stock is deteriorating at such a pace that the fish cannot sustain itself. More than half of the human population on earth derive an income from either catching or selling fish, and fish is consumed globally. There is a lot more at stake than simply losing a few fins in the water. Fish is food for an ever-growing population<sup>362</sup> and fish trade is how some countries keep their economies going.<sup>363</sup> Many countries' economies are dependent on their fisheries, but as a result of the lack of fish and countries fishing illegally within the maritime zones of other countries, fish have become even scarcer.<sup>364</sup> South Africa loses more revenue due to fishing than it retains from selling fish. To find out what coastal states are allowed to do regarding their EEZ, international law was examined.

The investigation revealed that, while international instruments and agreements on the use of the sea have afforded rights and powers to coastal states to protect their sea zones,<sup>365</sup> it remains for each coastal state to determine how it will use these rights and powers to protect its own sea zones.<sup>366</sup> International law does, however, restrict coastal states within the EEZ, limiting the actions they are allowed to perform towards foreign fishing vessels contravening their laws. The *LOSC*<sup>367</sup> was established to ensure that coastal states manage their EEZs effectively and stop overexploitation. The aim of the *UN Fish Stock Agreement*<sup>368</sup> is to ensure the long-term conservation and sustainability of fish resources. Some general principles of international law include *Agenda 21*,<sup>369</sup> which addresses the protection of the sea, and the *FAO Code of Conduct for Responsible Fisheries*<sup>370</sup> which expects coastal states to promote the quality, diversity and sustainability of fish resources for current and future generations. The exclusive economic zone is the zone within which South Africa does all its commercial fishing and this makes the exclusive economic zone very important when it comes to the international fish trade and South Africa's

---

362 Food and Agriculture Organization 2010 <http://www.fao.org>.

363 Food and Agriculture Organization 2010 <http://www.fao.org>.

364 Food and Agriculture Organization 2010 <http://www.fao.org>.

365 Salopek 2008 <http://www.independent.co.uk>.

366 Article 61(2) of LOSC.

367 *United Nations International Law of the Sea* 1982.

368 *The UN Fish Stock Agreement* 1982.

369 *Agenda 21* 1992.

370 *FAO Code of Conduct for Responsible Fisheries* in 1995.

own economy regarding fish trade.<sup>371</sup> South Africa is party to many international laws and treaties<sup>372</sup> to help protect the sea and the resources within,<sup>373</sup> and, as such, has an obligation to incorporate them into its own laws, which it did.

IUU fishing is an international problem that needs to be stopped.<sup>374</sup> This action can be stopped by implementing effective legislation to help control fishing within coastal states' sea zones. South Africa has legislation to regulate the amount of fish that may be caught and where these fish may be caught.<sup>375</sup> The problem, however, is that the legislation<sup>376</sup> is not effective because the department in charge of allocating permits does not follow regulations.<sup>377</sup> Laws like the *Marine Living Resources Act* 18 of 1998 and *Sea Fishery Act* 12 of 1988 stipulate the rights and duties<sup>378</sup> of marine officers regarding local and foreign fishing vessels,<sup>379</sup> but currently these rights and duties have been granted to the South African Navy.<sup>380</sup> This means that coastal marine officers, who have been trained to perform these duties and execute these rights, are no longer in control, but rather the South African Navy, which has no knowledge of what is expected and required. Furthermore, available vessels are being used by the Navy.<sup>381</sup> This makes it very difficult for the marine officers to perform their duties.<sup>382</sup> South African research vessels assigned to protect fish resources are not currently being operated by experts in this area, but are operated by the South African Navy.<sup>383</sup> The contract that was meant to be concluded with a security agency regarding the use of these research vessels and protecting the EEZ was misguided and in conflict with South African policy, which means that the contract could not be fulfilled. When the contract was cancelled due to a conflict of interests, no security agency was appointed to protect the EEZ of South Africa.

---

371 Ss 4 and 7 *Maritime Zones Act* 15 of 1994.

372 See chap 2 par 2.2.

373 Anon 2010 <http://www.environment.gov.za>.

374 Robertson and Butler World Fisheries Congress investigates the impact of illegal fishing on the industry.

375 S 14 *Marine Living Resources Act* 18 of 1998.

376 Refer to chap 3 par 3.2.1.

377 Anon 2010 <http://www.environment.gov.za>.

378 S 51 *Marine Living Resources Act* 18 of 1998.

379 See chap 3 par 3.2.2.3.

380 2012 <http://www.bizcommunity.com>.

381 See chap 3 par 3.2.2.3.

382 Warby 2009 <http://www.southafrica.info>.

383 Warby 2009 <http://www.southafrica.info>.

South Africa has the necessary legislative measures in place to protect its fish resources, but the problem lies with the implementation of those measures.<sup>384</sup>

If one looks at the Australian maritime legislation<sup>385</sup> regarding fishing, it is clear that it has the same elements as that of South Africa; they do, however, go further to include specific species in their legislation.<sup>386</sup> Australia is one of the leading countries with regard to safeguarding of fish resources within their EEZ.<sup>387</sup> It does not rely only on its legislation to stop IUU fishing, but also uses external methods, monitoring vessels, aircraft and monitoring systems. Australian legislation is effective because they interpreted *UNCLOS* and incorporated parts of the law into their law, which gives them more control and power over their sea zones, without being limited by *UNCLOS*. They were also the first country to take additional steps, apart from legislation, to safeguard their territorial waters by the implementation of VMS within their EEZ.<sup>388</sup> This includes the use of aircraft, marine vessels, private initiatives and information systems to combat IUU fishing. Australia has eliminated illegal fishing to such an extent that they can now concentrate on fish caught illegally being sold from other countries into their own economy.<sup>389</sup>

South Africa has very elaborate legislation controlling and monitoring the rights and duties of all parties at sea, from the fisher to the officer. The legislation includes the steps to be taken before a party is allowed to catch any fish, the rules they must comply with while catching fish and the penalties for non-compliance. South Africa should consider making the penalties for illegal fishing and dealing in illegal fishing more severe. South African and Australian legislation is quite similar, but Australia employs additional external methods to help stop IUU fishing. South Africa should consider other external methods to stop IUU fishing.<sup>390</sup> The vessels used to do research and monitoring are in the hands of the South African Navy and not in the hands of the people trained to do the monitoring and patrolling. The problem therefore arises that the people in charge do not have the necessary knowledge to

---

384 Anon 2010 <http://www.environment.gov.za>.

385 See chap 4 par 4.2.

386 Vince 2007 *Ocean & Coastal Management* 686.

387 Vince 2007 *Ocean & Coastal Management* 683.

388 Wilson and Tomkins "The Australian Approach to Combating" 76-77

389 Wilson and Tomkins "The Australian Approach to Combating" 77-78.

390 Hutchings, Roberts and Verheye 2009 *SAJS* 189.

execute the functions effectively. South Africa has been contemplating the idea of VMS within their EEZ to control the vessels within this zone.<sup>391</sup> South Africa will also have to contemplate the possibility of more research and monitoring vessels, and air and satellite surveillance.

South Africa has the legislation capable of controlling and protecting fishing within the EEZ and the necessary plans like VMS to support the legislation, but these measures are worthless if not implemented correctly. The country will have to consider using additional external methods, like Australia, to combat IUU fishing effectively.

---

391 Hutchings, Roberts and Verheye 2009 SAJS 189.

## **Bibliography**

### ***Literature***

Attwood, Harris and Williams 1997 *SAJMS*

Attwood CG, Harris JM and Williams AJ "International experience of marine protected areas and their relevance to South Africa" 1997 *South African Journal of Marine Science* 311-332

Bateman 2007 *Security Challenges*

Bateman S "Securing Australia's maritime approaches" 2007 *Security Challenges* 109-129

Branch *et al* 2002 *SAJMS*

Branch GM, Hauck M, Siqwana-Ndulo N and Dye AH "Defining fishers in the South African context: subsistence, artisanal and small-scale commercial sectors" 2002 *South African Journal of Marine Science* 475-487

Buckley, Itano and Buckley 1989 *BMS*

Buckley RM, Itano DG and Buckley TW "Fish Aggregation Device (FAD) enhancement of offshore fisheries in American Samoa" 1989 *Bulletin of Marine Science* 942-949

Collett *High potential agricultural land*

Collett A *The determination, protection and management of high potential agricultural land in South Africa with special reference to Gauteng* (MSc Dissertation University of Pretoria Pretoria 2008)

Davis "Monitoring Control Surveillance"

Davis JM "Monitoring Control Surveillance and Vessel Monitoring System Requirements to Combat IUU Fishing Report" Sydney Australia 15-19 May 2000 1-18

Dugard *International law*

Dugard J *International law: a South African perspective* 3<sup>rd</sup> ed (Juta Cape Town 2006)

Erceg 2006 *Marine Policy*

Erceg D "Deterring IUU fishing through state control over nationals" 2006 *Marine Policy* 173-179

Flothmann *et al* 2010 *Science*

Flothmann S, Von Kistowski K, Dolan E, Lee E, Meere F and Album G  
"Closing Loopholes: Getting illegal fishing under control" 2010 *Science* 1235-1236

Freestone, Barnes and Ong *Law of the Sea*

Freestone D, Barnes R and Ong D *The Law of the Sea* (Oxford University Press Oxford 2006)

Guilfoyle *Shipping Interdiction*

Guilfoyle D *Shipping interdiction and the law of the sea* (Cambridge University Press Cambridge 2009)

Hutchings, Roberts and Verheye 2009 SAJS

Hutchings L, Roberts MR and Verheye HM "Marine environmental monitoring programmes in South Africa: a review" 2009 *South African Journal of Science* 94-201

Johnson 2004 *International Shipping*

Johnson LS *Coastal state regulation of international shipping* (Oceana Publications Dobbs Ferry New York 2004)

Maguire *et al* 2006 "The state of world highly migratory"

Maguire JJ *et al* "The state of world highly migratory, straddling and other high seas fishery resources and associated species" No 495 FAO 2006 1-5

Markowski *Environmental Requirements*

Markowski M *Environmental requirements on EEZ Fisheries Management* (European Law Publishing 2010 17-51)

Moolla 2009 "Contextualising illegal, unregulated and unreported fishing"

Moolla S *Contextualising illegal, unregulated and unreported fishing of marine resources in South African waters* (Paper commissioned by the Institute for Security Studies Cape Town 2009 1-20)

Nel, Cochrane and Petersen "Ecological Risk Assessment"

Nel DC, Cochrane K and Petersen SL "Ecological Risk Assessment (ERA) for the South African Large Pelagic Fishery" WWF South Africa Report Series- July 2007/Marine/002

Nevill "Overfishing under regulation"

Nevill J "Overfishing under regulation: the application of the precautionary principle and the ecosystem approach in Australian fisheries management"

(VDM Verlag Dr Müller Saarbrücken 2011) [PDF copy available from <http://www.onlyoneplanet.com>]

Paterson & Kotzé (eds) *Environmental Compliance*

Paterson AR & Kotzé LJ (eds) *Environmental compliance and enforcement in South Africa: legal perspectives* (Juta Cape Town 2009)

Robertson and Butler 2012 *World Fisheries Congress investigate the impact of illegal fishing on the industry*

Robertson S and Butler J *World Fisheries Congress investigate the impact of illegal fishing on the industry* World Fisheries Congress at Edinburgh International Conference Centre Scotland from 7-11 May 2012 1-3

Rothwell and Stephens *International law*

Rothwell D and Stephens T *The international law of the sea* (Hart Publishing Oxford 2010)

Rothwell and Haward 1996 *Marine Policy*

Rothwell DR and Haward M "Federal and international perspectives on Australia's maritime claims" 1996 *Marine Policy* 29-46

Schmidt "Addressing IUU Fishing"

Schmidt CC "Addressing illegal, unreported and unregulated (IUU) fishing" (Paper prepared for the International Fisheries Compliance 2004 Conference in Brussels 29-30 September 2004)

Sink *et al* "National Biodiversity"

Sink K *et al* "National Biodiversity Assessment 2011: Marine & Coastal Component" Volume 4: Marine and Coastal Component

United Nations "Johannesburg Summit" 2002

United Nations "Johannesburg Summit 2002 Introduction - 2002 Country Profiles Series" World Summit on Sustainable Development Johannesburg August 26 to September 4 2002

Vince 2007 *Ocean & Coastal Management*

Vince J "Policy responses to IUU fishing in Northern Australian waters" 2007 *Ocean & Coastal Management* 683-698

Westing (ed) *Global resources*

Westing AH (ed) *Global resources and international conflict: environmental factors in strategic policy and action* (Oxford University Press New York 1986)

White and Forrest *Law Update*

White M and Forrest C *Australian Maritime Law Update* 2006 (TC Beirne School of Law University of Queensland 2007)

Wilson and Tomkins "The Australian approach to combating"

Wilson R and Tomkins K "The Australian approach to combating illegal foreign fishing transnational environmental crime in the Asia-Pacific" A workshop report 2007 76-82

Winter 2006 "Legal nature"

Winter G "The legal nature of environmental principles in international, EU, and exemplary national law" in Winter G (ed) *Multilevel Governance of Global Environmental Change* (Cambridge University Press Cambridge 2006) 587-604

Winter *Towards Sustainable Fisheries Law*

Winter G (ed) *Towards Sustainable Fisheries Law: A comparative analysis* (IUCN Gland Switzerland in collaboration with the IUCN Environmental Law Centre Bonn Germany 2009)

## **South African Legislation**

*Constitution of the Republic of South Africa, 1996*

*Criminal Procedure Act 51 of 1977*

*Defence Act 42 of 2002*

*Fisheries Administration Act 161 of 1991*

*Fisheries Management Act 162 of 1991*

*FOA Code of Conduct for Responsible Fisheries 1998*

*Marine Living Resources Act 18 of 1998*

*Maritime Zones Act 15 of 1994*

Permit Conditions for Tuna Longline Fishery: Fishing Season 2012/2013  
Department of Agriculture, Forestry and Fisheries

*Public Finance Management Act 1 of 1999*

*Sea Fishery Act 12 of 1988*

*Sea Fishery Amendment Act 57 of 1992*

*Ship Registration Act 58 of 1998*

*State of Food and Agriculture 1998*

*Torres Strait Fisheries Act No. 23 of 1984*

White Paper: *Marine Fisheries Policy for South Africa 1997*

## **Foreign Legislation**

*Agenda 21 1992*

*Australian Fisheries Management Act 1991*

*Convention on Fishing and Conservation of Living Resources of the High Seas 1958*

*Geneva Convention Continental Shelf 1958*

*Geneva Convention on the High Seas 1958*

*Geneva Conventions on the Territorial Sea and the Contiguous Zone 1958*

*Law of Sea Convention 1982*

*The Lacey Act of 1900*

*Rio Declaration on Environmental and Development 1992*

*UN Fish Stock Agreement 1982*

*United Nations Convention on the Law of the Sea 1982*

### **Internet sources**

Anon 2005 <http://www.environment.gov.za>

Anon 2005 *Marine and coastal resources* <http://www.environment.gov.za> [date of use 5 Sep 2012]

Anon 2007 <http://www.smartgear.org>

Anon 2007 *Bycatch - So what's the answer?* <http://www.smartgear.org> [date of use 16 Aug 2012]

Anon 2010 <http://www.environment.gov.za>

Anon 2010 *Marine and coastal management* <http://www.environment.gov.za> [date of use 14 Aug 2012]

Anon 2010 <http://www.illegal-fishing.info>

Anon 2010 *NEF: The fight against illegal fishing in West Africa and the EU* <http://www.illegal-fishing.info> [date of use 9 Sep 2012]

Anon 2012 <http://www.defenceweb.co.za>

Anon 2012 *DAFF research vessels ready to sail next month* <http://www.defenceweb.co.za> [date of use 1 Sep 2012]

Anon 2012 <http://www.farmingportal.co.za>

Anon 2012 *Navy called to keep coast clear after fishy tender deal* <http://www.farmingportal.co.za> [date of use 12 Sep 2012]

Anon Date Unknown <http://www.cia.gov>

Anon [Date Unknown] *Indian Ocean* <http://www.cia.gov> [date of use 15 Aug 2012]

Anon Date Unknown <http://www.fao.org>

Anon [Date Unknown] *Agreement on port state measures to prevent, deter and eliminate illegal, unreported and unregulated fishing* <http://www.fao.org> [date of use 15 Augustus 2012]

Baum 2009 <http://www.fao.org>

Baum JK 2009 *World review of fisheries and aquaculture* <http://www.fao.org> [date of use 9 Sep 2012]

Department of Agriculture, Forestry and Fishery 2011 <http://www.daff.gov.au>

Department of Agriculture, Forestry and Fishery 2011 *The Australian Fishing Zone (AFZ) and Economic Exclusion Zone (EEZ)* <http://www.daff.gov.au> [date of use 15 Sep 2012]

Dolley 2013 <http://www.iol.co.za>

Dolley C 2013 *Lobster thief told to repay R294m* <http://www.iol.co.za> [date of use 19 June 2013]

Etheridge 2012 <http://www.iolnews.co.za>

Etheridge J 2012 *Piracy threatens South Africa* <http://www.iolnews.co.za> [date of use 15 Sep 2012]

Food and Agriculture Organization Management 2010 <http://www.fao.org>

Food and Agriculture Organization Management 2010 *Port State measures* <http://www.fao.org> [date of use 15 Sep 2012]

Froese and Proelß 2010 <http://www.futureocean.de>

Froese R and Proelß A 2010 *Rebuilding fish stocks no later than 2015: will Europe meet the deadline?* <http://www.futureocean.de> [date of use 15 Sep 2012]

Galane 2012 <http://www.info.gov.za>

Galane S 2012 *Department of Agriculture, Forestry and Fisheries forensic investigation confirms multi-billion rand corruption in vessel management by Smit Amandla Marine Services Pty Ltd* <http://www.info.gov.za> [date of use 23 Sep 2012]

Gosling 2009 <http://www.iol.co.za>

Gosling M 2009 *Illegal fishing costing SA billions* <http://www.iol.co.za> [date of use 12 Sep 2012]

Hughes 2011 <http://www.somfin.org>

Hughes J 2011 *The piracy-illegal fishing Nexus in the Western Indian Ocean* <http://www.somfin.org> [date of use 15 Sep 2012]

Huntingford 2012 <http://www.fishupdate.com>

Huntingford F 2012 *World Fisheries Congress investigates the impact of illegal fishing on the industry* <http://www.fishupdate.com> [date of use 12 July 2012]

Knoetze 2012 <http://www.iol.co.za>

Knoetze D 2012 *Murky waters for fisheries* <http://www.iol.co.za> [date of use 14 Sep 2012]

Kofas 2011 <http://www.illegal-fishing.info>

Kofas J 2011 *Impoverishing Africa: EU and China's illegal fishing* <http://www.illegal-fishing.info> [date of use 17 Aug 2012]

LeGresley 1993 <http://www.publications.gc.ca>

LeGresley E 1993 *The Law of the Sea Convention* <http://www.publications.gc.ca> [date of use 17 May 2014]

Lu Hui 2006 <http://www.gov.cn>

Lu Hui 2006 *Pollution, overfishing destroy East China Sea fishery* <http://www.gov.cn> [date of use 12 Sep 2012]

Martin and Nielsen 1996 <http://www.oceandocs.org>

Martin R and Nielsen JR 1996 *Creation of a new fisheries policy in South Africa: The development process and achievements* <http://www.oceandocs.org> [date of use 12 Aug 2012]

Moolla 2006 <http://www.illegal-fishing.info>

Moolla S 2006 *IUU fishing in South Africa: An acronym with an expiry date?* <http://www.illegal-fishing.info> [date of use 23 Sep 2012]

Moolla 2012 <http://feikemanagement.blogspot.com>

Moolla S 2012 *Who should be in charge of our fishing harbours?* <http://feikemanagement.blogspot.com> [date of use 15 Sep 2012]

Nair 2012 <http://www.iol.co.za>

Nair Y 2012 *Beach net loopholes are closed* <http://www.iol.co.za> [date of use 13 Sep 2012]

Prado 1990 <http://www.fao.org>

- Prado J 1990 *Fisherman's workbook* <http://www.fao.org> [date of use 13 Sep 2012]
- Rosencrans 2010 <http://www.traffic.org>
- Rosencrans K 2010 *Environmental courts* <http://www.traffic.org> [date of use 13 Sep 2012]
- Salopek 2008 <http://www.independent.co.uk>
- Salopek 2008 <http://www.independent.co.uk>
- Shaw Date Unknown <http://www.academicroom.com>
- Shaw M Date Unknown *International Law* <http://www.academicroom.com> [date of use 21 January 2013]
- Tunley 2009 <http://awsassets.wwf.org.za>
- Tunley K 2009 *State of management of South Africa's marine protected areas* <http://awsassets.wwf.org.za> [date of use 12 Sep 2012]
- Van Dalen 2012 <http://www.da.org.za>
- Van Dalen P 2012 *Open season for poaching marine resources* <http://www.da.org.za> [date of use 12 Sep 2012]
- Warby 2009 <http://www.southafrica.info>
- Warby V 2009 *Fishing patrol ship makes waves* <http://www.southafrica.info> [date of use 25 Sep 2012]
- Wingrin 2012 <http://www.defenceweb.co.za>
- Wingrin D 2012 *Navy surprised by poor condition of fisheries patrol vessels* <http://www.defenceweb.co.za> [date of use 25 Sep 2012]
- Yeld 2008 <http://www.feike.co.za>
- Yeld J 2008 *Anti-poaching boat 'outsourced' 29 August 2008* <http://www.feike.co.za> [date of use 25 Sep 2012]