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The Need for International Legal Protection of Sea Turtles and the Enforcement of Seafood Ecolabelling Standards

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by

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ABSTRACT

The migratory nature of sea turtles makes their protection difficult and that causes the failure of International environmental law to protect them Despite years of concern for sea turtles and the threats to them no rule of national law and no single international environmental agreement are capable of effectively protecting sea turtles. Sea turtles have been protected through domestic environmental laws such as the US Endangered Species Act. Section 609 requires countries exporting shrimp to the US to equip their trawlers with Turtle Excluder Devices (TEDs).

This is an analysis of the need for global legal protection of sea turtles inspired from the US TED requirement. Despite its importance as an effective tool to protect sea turtles, the legitimacy of US Section 609 extraterritoriality was challenged by few shrimp exporting countries who submitted their claim to the World Trade Organization (WTO) in 1998. Although the last WTO decision in 2001 marked international trade law for its efforts to consider elements of environmental law in its verdict, the main focus of this study is to use the TED requirement as model on the global level as it is an efficient tool to protect sea turtles and assure sustainable fisheries management. This requires one international organization to assure the implementation of the TED requirement worldwide through either voluntary or mandatory ecolabelling.

TED requirement models can be integrated to form an effective legal framework on the international level and .a mechanism that is acceptable to every country.

The seafood certification program can be formalized through either internationally recognized organizationssuch as the Marine Stewardship Council (MSC), or the FishCode Program, both implementing the FAO Code of Conduct for Responsible Fisheries. The TED requirement and the FAO Code of Conduct for Responsible Fisheries are two mechanisms that are compatible and appropriate to protect sea turtles both on the domestic level and on the international level. The goal is to internationalize the TED requirement and its integration with one of the FAO mechanisms.

Another part of this study evaluates the domestic effectiveness of international legal frameworks to protect sea turtles, using the example of Madagascar. The purpose of the study is to investigate the social impact as well as the integration of conservation measures to littoral communities traditional use of sea turtles as subsistence. It is important to study the national/local implementation of the 1992 Biodiversity Convention. The reason is because this is not only about protecting sea turtles from destructive fisheries practices, but also promoting the sustainable use and access of local resources users to these resources as the 1992 Biodiversity convention attributes such use rights to local communities if the practice is proven not to harm the ecosystem.

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LIST OF ACRONYMS AND ABREVIATIONS

ASEAN	Association of South East Asian Nations Agreement on the Conservation of Nature and Natural Resources
BRD	Bycatch Reduction Device
COFI	Committee on Fisheries
CITES	Convention for International Trade of Endangered Species
CIT	US Court of International Trade
CCRF	Code of Conduct for Responsible Fisheries
CTE	Committee for Trade and Environment
DSB	Dispute Settlement Body
DSP	(121) US Declaration form for shrimp certification
DOS	US Department of State
EEZ	Exclusive Economic Zone
ESA	US Endangered Species Act
FAO	Food and Agriculture Organization
GATT	General Agreement on Tariffs and Trade
IPOA	International Plan of Action
ICZM	Integrated Coastal Zone Management
LOSC	Law of the Sea Convention
MSC	Marine Stewardship Council
MMA	Barazilian Ministry of Environment

NMFS	US National Marine Fisheries Service
NGO	Non-Governmental Organization
SPS	Sanitary Phyto-Sanitary (Agreement)
TED	Turtle Excluder Device
TAMAR	Brazilian Sea Turtle Project
TBT	Technical Barriers to Trade
UNCLOS	United Nations Convention on the Law of the Sea
WTO	World Trade Organization
WWF	World Wildlife Fund

METHODOLOGY

The choice of this dissertation topic was based on a previous research experience in Madagascar about sustainable fisheries and coastal zone management. Fieldworks were conducted a year prior to joining this SJD Program, including workshops with traditional fishermen and meeting with industrial shrimp companies.

The main methods used in developing this dissertation include library and internet documentation to review of existing environmental laws and analysis of their provisions ability to protect sea turtles. Part of the research was conducted at the Library of Congress in Washington DC. In addition, interviews were conducted with different entities and officials, including, the US Department of State Office of Marine Conservation, the National Oceanic and Atmospheric Administration (NOAA), the World Wildlife Fund (WWF US), the Marine Stewardship Council (MSC), the Division of Ocean Affairs and the Law of the Sea (DOALOS) within the United Nations, the Food and Agriculture Organization (FAO), the Environmental Law Institute (ELI), the Smithsonian Institute, Faculty members at Vermont Law School and Golden Gate University.

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INTRODUCTION

Threats to sea turtles

One of most dangerous threats to sea turtles is the fishing practice. Long line fishing is killing sea turtles. Sea turtles threats have been subject of conflict between international trade rules and environmentprotection. One of these issues is the WTO "Turtle - Shrimp" case, challenging a US legal measure to require any fishing vessels exporting to the US, to be equipped with TED (Turtle Excluder Devices) in order to save sea turtles from being killed by long line fishing nets.

There are also other reasons that would endanger sea turtles beyond the fishing method. Among that is the traditional practice of hunting sea turtles as part of the culture for some regions in some countries. On beaches around the world, poachers armed with machetes would butcher turtles coming ashore to nest. Some of the animals will be 30-40 year old animals nesting for the very first time[1]."

Another reason is also the recreational use of the beaches where sea turtles lay their eggs. Female sea turtles leave the water to lay their eggs on tropical beaches. The eggs are the first part of the turtle life cycle to be vulnerable.Turtle eggs are collected and sold as both food and important ingredients in Asian medicines. Some Latin American states covet sea turtles as aphrodisiacs. Domestic dogs and pigs, which accompany human settlements, are also

[1] Testimony of Marydele Donnelly, a sea turtle biologist with Ocean Conservancy before Congress in April 2004 in support of the US 2004 Marine Turtle Conservation Act. From Africa to Asia to Latin America, dedicated biologists and community activists are working under difficult and dangerous conditions to save the sea turtles from extinction.

predators of both turtle eggs and hatchlings[2]. Often, beaches are used to conduct development works or tourism activities by building hotel resots or other facilities. These activities damage turtles nesting areas and without integration of development activities with the conservation measures these activities increase the endangerment of sea turtles. Beyond other threats such as habitat loss and degradation, the population of sea turtles is also threatened by the problem of bycatch in the fishing industry. Martin Hall defines bycatch as "that part of the capture that is discarded at sea, dead (or injured to an extent that death is the result)[3] . "Capture" is defined as all that is taken in the gear. This can be divided in two: a portion that is retained for its economic value (the catch); the portion discarded at sea dead (the bycatch); and the portion released alive (the release)[4]. For the purpose of this work, fisheries bycatch includes the incidental mortality of sea turtles.

Justifications for sea turtles protection

Questions would be raised why protecting sea turtles and how it is important to human life and what is the link between human lifeand sea turtles protection. The Stockholm Declaration on the Human Environment in 1972 provides answers to these questions. Man has the fundamental rights to adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being. Man is responsible to protect and improve the environment for present and future generations[5]. The natural resources of the earth including the air, water, land, flora and fauna and especially representative

[2] Lugten, (G) Soft Law With Hidden Teeth: The Case for a FAO International Plan of Action on Sea Turtles, Journal of international Wildlife Law , 2005
[3] Hall (M), Alverson (D), Bycatch: Problems and Solutions, 41 Marine Pollution Bulletin 201, 204 (2000)
[4] Hall (M), On Bycatches, 6 Rev of Fish Biology & Fisheries 319-352
[5] 1972 Stockholm Declaration of the,, United Nations Conference on the Human Environment, Principle 1

samples of natural ecosystems must be safeguarded for the benefit of present and future generations through careful planning or management as appropriate[6]. The capacity of the earth to produce vital renewable resources must be maintained and, wherever practicable, restored or improved[7].

In its preamble, the Convention on Biological Diversity states the recognition of "the close and traditional dependence of many indigenous and local communities embodying the traditional lifestyles on biological resources, and the desirability of sharing equitably benefits arising from the use of traditional knowledge, and the sustainable use of the biodiversity components[8]. In some countries, coastal communities harvest sea turtles and eggs mostly for subsistence. For instance, the capture of turtles in SouthEast Madagascar is largely for local consumption or local trade[9]. The local consumption of biological resources for subsistence is provided by the Convention on Biological Diversity under its Article 10 referring to Sustainable Use of Components of Biological Diversity. Each Country part of the Convention shall, as far as possible and appropriate "protect and encourage customary use ofbiological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements"[10].

The ethical implications of the Creation Theory to the protection of sea turtles and all creatures

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[6] *Supra* note 5, Principle 2
[7] *Supra* note 5, Principle 3
[8] 1992 Convention on Biological Diversity, Preamble
[9] Gladstone, Andriantahiana, Soafiavy, " Azafady Project Fanomena – Marine Turtle Conservation and Research in Southeast Madagascar, Report on Activities and Findings in the 2001-2002 Nesting Season", Page 31. Of the 19 turtles caught at sea in Etapera (Tolagnaro Madagascar) between November 15 and February 27th, 13.5 were shared between the fishermen and 5.5 were sold in the village.
[10] *Supra* note 8 at Article 10 (C)

Sustainable management of sea turtles means here protection of species through conservation activities while meeting the subsistence needs of coastal communities by setting up rules regulating the harvesting period and quantity, for instance allowing coastal communities to harvest sea turtles periodically per quota per family. This principle is also in conformity with the provisions of the 1992 Biodiversity Convention allocating equitably the products of the ecosystem service to the local communities.

It is worth protecting sea turtles as the human being is the first responsible to protect and improve the environment for the future generations. It is important that the species of sea turtles are protected and restored if possible[11], in order to maintain the level of ecosystem functioning. God attributed the intelligence to human-being to be the stewards of natural resources[12]. Human being got the authority and supremacy to have dominion[13] over all creatures.

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[11] *Supra* note 5, Principle 3

[12] Religious documents provide metaphysical basis to construct workable environmental ethic. The Scriptures primary focus is mans relationship to God. This statement, like many others regarding Scripture, has been debated by scholars (Napoletano ,2000). The Biblical interpretation of stewardship, "dominion" and "domination" are very important to clarify to emphasize the justification for the protection of sea turtles among all divine creatures. The Bible being the fundamental Judeo-Christian text offers several implications to environmental concerns. The Bible defines dominion as the authority that God vests in human being as to "have power over the fish, the birds and animals, domestic and wild" (Gen 1:26 c). The Divine Command to human being is to have dominion on natural resources (Gen 1:26-28). God express His mandate of intrinsic good of His Creation (Gen 1:31) and instructed them to "be fruitful and multiply (Gen 1:27). Critics of the Divine Command Theory tend to point to this passage as the source of our environmental problems. Generally opponents will argue that this passage legitimizes exploitation of the environment for personal gain (Napoletano, 2000). That is when the notions of dominion vs. domination need to be clarified to justify that God commands human being as Stewards to use natural resources in a sustainable manner. Domination of nature usually appears in the form of abuse and overexploitation of resources for commercial benefits. For instance the harvest of sea turtles for commercial purpose is usually in conflict with littoral communities harvesting sea turtles for subsistence.

[13] According to Webster's Third New International Dictionary, 1986, **Domination** is defined as the supremacy or ascendancy over others(1) ; governing or controlling influence (2) . **Dominion** is defined as an Absolute ownership (1); something that is subject to sovereignty or control (2). **Stewardship** is defined as the aspect of the religious life and church administration dealing with individual's responsibility for sharing systematically and proportionately his time, talent and material possessions in the service of God and for the benefit of all humanity.

Dominion does not mean to overexploit or misuse natural resources and abuse the authority vested by God in human being but to use and manage resources in a sustainable way[14].

Failure of international environmental law to protect sea turtles

International environmental law fails to protect sea turtles because of their migratory nature. Despite years of concern for sea turtles and the threats to them no rule of national law and no single international environmental agreement is capable of protecting sea turtles[15]. Sea turtles have been protected through domestic laws such as the United States 1973 Endangered Species Act and the Section 609 of the Public Law 101-162 requiring the use of TED and other recent laws[16]. In spite of such protection, these legislations will never be recognized on the international level no matter how effective they are on the domestic level unless there is an effort to "internationalize" them. Through recognized international organizations such as the United Nations Food and Agriculture Organization, the US principle of TED requirement can be used on the global level.

The migratory nature of sea turtles is at the heart of law's failure to protect them. During their life cycle, sea turtles will inhabit four different jurisdictions of

[14] **Sustainable Management** is defined as the management of the use, development and protection of natural and physical resources in a way or at a rate which enables people and communities to provide for their social, economic and cultural well-being and for their health and safety while (a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generation, (b) safe-guarding the life-supporting capacity of air, water, soil, and ecosystems, and (c) avoiding, remedying, or mitigating any adverse effects of activities on the environment. (Definition specific to the Resource Management Act 1991).

[15] Wold (C), The Status of Sea Turtles Under International Environmental Law and International Environmental Agreements, 1997

[16] Countries such as the United States have made a great effort to save sea turtles from enacting the Turtle Excluder Device requirements legislation to the recent Marine Turtle Conservation Act of June 2004.

customary international law[17]. In none of these jurisdictions do strong conservation standards prevail over a State's right to exploit resources[18]. In a coastal State's territory, its territorial sea (12 miles from coast), and its marine Exclusive Economic Zone (EEZ/ up to 200 miles from a State's coast), the use and conservation of sea turtles is governed by the principal of customary international law known as Permanent Sovereignty over Natural Resources[19]. Under the principle of Permanent Sovereignty over Natural Resources, a State has sovereign rights to use natural resources, including species within its territory[20]. On the high seas, the converse is true: no State has sovereign rights, and so all States have the right to exploit a species. Unless regulated by international agreement, species on the high seas, the area outside the jurisdiction of any State, are considered *res nullius*- the property of no State[21]. However, there is a limitation on the rights of a State to exploit resources. As a general rule, a State cannot use its territory in a manner that harms another State[22]. Similarly, a State must use the resources of the high seas consistently with the interests of other States and must conserve the living resources of the high seas[23]. But these conservation duties are weak and fail to require a State to adopt strong measures to protect sea turtles.

Madagascar is facing the same problem of controversy between over fishing and marine wildlife protection. Over-fishing occurs both in the internal

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[17] Permanent Sovereignty over Natural Resources, from the (1) nesting beaches, (2) hatchlings towards the sea, and (3) navigating within 12 miles off the coast to the 200 miles EEZ ; *Res nullius* (4) in the high seas. The recent regional organizations are an additional organization.
[18] Wold, *Supra* note 15
[19] United Nations General Assembly, Resolution 1803 (XVII) (December 14, 1962)
[20] This principle of customary international is provided by article 56 of the 1982 Law of the Sea Convention.
[21] Cyril de Klemm, *Migratory Species in International Law,* 29 NATURAL RES.J. 935, 938 (1989)
[22] Wold , *supra* note 15
[23] Article 56 of 1982 Law of the Sea Convention

waters and in the economic exclusive zone (EEZ) of the country. Despite the existence of several international and national legal frameworks there is still a lack of specific enforcement mechanisms. This lack creates an obstacle on the effectiveness of conservation measures. Moreover, the absence of an effective and specific fisheries management system is among the facts that justify the weakness of environmental law enforcement in many countries including Madagascar. Over-fishing becomes a threat to marine resources such as sea turtles.

Another concern that needs to be addressed is the domestic trade of sea turtles and eggs harvesting for subsistence need of local littoral communities. The Biodiversity Convention specifically protects customary uses of biological resources in accordance with traditional cultural practices, and provides that they are compatible with conservation and sustainable use principle[24]. Despite that fact, there is still a lack of enforcement mechanism on the national level to implement the Biodiversity Convention to codify and formalize the recognition of local community rights when developing mecharism to protect sea turtles.

To address these issues, my thesis will focus on the legal mechanisms providing mandatory ecolabelling as a mean to protect sea turtles species worldwide while assuring a sustainable shrimp fisheries management. This work will justify the scope of the FAO Code of Conduct for Responsible Fisheries and its related International Plan of Actions in implementing the Code on the domestic level. It will address specifically the issue that eco-labeling standard (TED Requirement) should be adopted on the global level to avoid the extraterritorial application of the US law in foreign shrimp exporting Countries.

[24] Wold, *supra* note 15

Also, I defend that there should be an appropriate international organization or special institution to implement and enforce the eco-labeling standard worldwide. This will include a policy lesson from the United States' Turtle Excluder Device (TED) requirement and evaluate its effectiveness from enactment to enforcement in shrimp exporting countries including Madagascar and Brazil. Will be included as well the review of the Malagasy Fisheries Law addressing tutle excluder device (TED) requirements and the possibility to build its elements to implement the sea food ecolabeling standard in Madagascar. The TED requirement is a good principle and model for many exporting countries to follow in order to certify their products within their own countries. The certification procedure should be based on each country's environmental standard in order to make the process environmentally sensitive and politically correct. However, if the principle of worldwide applicability of the certification process seems to be the best way to implement the TED requirement, a better way to approach it would be the adoption of an international certification standard through either bilateral or multilateral agreement.

The goal of this study is to come up with recommendations thatthe eco-labeling standard (TED Requirement) should be adopted on the global level to avoid the extraterritorial application of the US law in foreign shrimp exporting Countries. Also, I defend that there should bean appropriate international organization or special institution to implement and enforce the ecolabeling standard worldwide, there are already domestic laws in force that need more effective implementation on the local level that can be integrated with the proposed draft Marine Resources Protection Law. For instance, the recent Madagascar Integrated Coastal Zone Management Policy developed in 2002

came with a Decree and an inter-ministerial Executive Order regulating the implementation mechanisms and management tools for all levels of decision-making to enable a better management of the marine and coastal zones. Sometimes within the regional level, for instance the Indian Ocean coastal countries organization, some countries are more advanced and already have legislation in place to protect sea turtles. Regional organizations create agreements that are based on existing principles already implemented domestically by some of the countries members. The implementation of such framework will enable all stakeholders from local coastal communities to industrial fishing companies to reinforce the effort to better protect sea turtles from threats.

This dissertation will demonstrate two options including the Marine Stewardship Council (MSC) and the FAO FishCode as the possible organizations that can develop certification standards and TED requirement model that can be integrated to form an effective legal framework on the international level.

An effort should be made to find a solution that is acceptable to every country, requiring any exporting country to meet the TED requirement. The seafood certification program can be formalized through internationally recognized organizations such as the Marine Stewardship Council (MSC),which is one of the implementation mechanism for the United Nations FAO Responsible Fisheries Program. The FAO Code of Conduct can be an effective international mechanism that can be implemented on the national level The US Section 609 providing TED requirement and the FAO Code of Conduct for Responsible Fisheries are two mechanisms that are compatible and appropriate to protect sea turtles both on the domestic level and on the international level. The goal is to

internationalize the TED requirement and its integration with the MSC certification standard in order to build a more effective implementation mechanism on the national level.

Dissertation outline

This dissertation comprises five chapters. Chapter One discusses the failure of existing environmental laws to protect sea turtles and the need for effective international Conservation Law frameworks to address that specific issue. Chapter Two emphasizes the lessons learned from the United States TED requirement effectiveness, from enactment to enforcement. Chapter Three emphasizes the importance of seafood ecolabelling as a means to protect sea turtles. Chapter Four integrates sustainable fisheries management and conservation of sea turtles. The particular focus of this chapter will be the role of international sea food organization and the compliance of ecolabelling standards with domestic regulations. Chapter Five will draw the recommendations and general conclusions.

CHAPTER 1:

ASSESSMENT OF THE CAPACITY OF EXISTING ENVIRONMENTAL LAWS TO ADDRESS SEA TURTLES THREATS

Section 1: Introduction

It is worth studying first the ecology of sea turtles in order to understand the issue of threats to them. Sea turtles belong to an ancient group of marine reptiles. Their bodies are enclosed by an armor-like shell, or carapace, that is fused to the backbone. Unlike land tortoises and turtles, sea turtles can not retract their heads into the shell. Their legs, particularly the larger forelimbs, are modified into flippers for swimming. Sea turtles are migratory species but must return to land to reproduce. They migrate long distances to lay their eggs on remote sandy beaches[25].

> There are nine species of sea turtles, which live primarily in warm waters. Following are the three most well known species: Green turtles (*Chelonia mydas)* are found in tropical waters throughout the tropics. They feed mostly sea grasses and sea weeds; the hawksbill turtle (*Eretmochelys imbricata)*. It uses its beak-like mouth to feed on encrusting animals (sponges, sea squirts, barnacles) and sea weeds (Castro *et al,* 2003, p.181). The largest sea turtle is the leatherback (*Dermochelys coriacea*). Individuals may attain a length of 2 m (7ft), and weigh at least 540 kg (1,200 lb). Instead of a solid shell, they have a series of small bones buried in the dark skin, forming distinct longitudinal ridges. Leatherbacks are an open-water, deep diving species and are rarely seen except on nesting beaches. Their diet consists largely on jellyfishes[26]

Because of their migratory nature and in spite of long time concerns for sea turtles threats, it has been difficult and unsuccessful to protect sea turtles under environmental law especially on the international level. This chapter will justify the lack of international legal protection of sea turtles while describing the different jurisdictions of customary international law that regulate sea turtles during their lifecycle. That includes the regime of nesting beaches and the principle of Permanent Sovereignty over Natural Resources and State Responsibility; the regime in the Territorial Sea and the Exclusive Economic Zone; and the regime in the High Seas.

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[25] Castro *et al.*, Marine Biology, 4th Edition 2003, p.181
[26] *- id -*

Section 2: Failure of International Environmental Law to protect sea turtles

The failure of the international environmental law to protect sea turtles is justified by the fact that even the 1982 Law of the Sea Convention (LOSC) does not address a particular concern about sea turtles species nor marine reptiles. The only regulation in force that protect sea turtle is the Convention for International Trade of Endangered Species (CITES), that is regulated effectively by international community. The CITES does not control any other threat such as the subsistence harvesting which is not regulated. Despite language in many treaties relating to habitat protection no treaty requires a party to protect sea turtles nesting habitat or marine habitat[27].

2.1. The migratory nature of the sea turtles

Although sea turtles are classified as migratory species and listed in the Migratory Species Convention Appendixes[28], they don't benefit from any particular protection more than the "acknowledgement of States parties of the importance of migratory species and the need to take action to avoid any migratory species being endangered"[29]. No additional rules apply either within the teritory or territorial waters of a State or on the high seas. Moreover, under the shared resources concept, a State is considered the temporary host of a migratory species[30]. Article 63 (1)and (2) of the LOSC provides that

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[27] Wold, *supra* note 15

[28] 1979 Convention on the Conservation of Migratory Species of Wild Animals. Sea turtles are part of both Appendixes I and II. Most of the species are endangered and listed in Appendix I. Some of them are part of Appendix II in which are listed migratory species which have an unfavourable conservation status and which requires international agreements for their conservation and management: Article IV Convention on the CMS 1979)

[29] Article II (1)(2) Convention on the Conservation of Migratory Species of Wild Animals, 1979

[30] Cyril de Klemm, *supra* note 20

" where the same stock or stocks of associated species occur within the exclusive economic zone of two or more coastal States, these States shall seek, either directly or through appropriate sub-regional or regional organizations, to agree upon the measures necessary to coordinate and ensure the conservation and development of such stocks without prejudice to the other provision of this Part.....(2) where the same stock or stocks of associated species occur both within the exclusive economic zone and in an area beyond and adjacent to the zone, the coastal State and the State fishing for the stock in the adjacent area shall seek, either directly or through appropriate sub-regional or regional organizations, to agree upon the measures necessary for the conservation of these stocks in the adjacent area."

Nothing further is said here beyond "seeking to agree upon the measures necessary to coordinate and ensure the conservation and development of such stocks". Article 63(1) and (2) does not stipulate anyprovision about management objectives or allocation of the catch among interested States[31] which are the kinds of things that the States concerned need to agree on if there is to be effective management of shared stocks. While it follows from Article 63(1)and the case law on international courts and tribunals on the duty to negotiate[32]that the States concerned are required to negotiate arrangements for the management of shared stocks in good faith and in a meaningful way, there is no obligation on such States to reach agreement[33]. However, in spite of that lack of mandatory regulation, a State would be required to take conservation measures if necessary to achieve a certain result, such as maintenance or restoration of the species to a favorable conservation status[34].

2.2. The over fishing and destructive practices

There is an increase in sea turtles mortality because of the unregulated fishing method favoring long line vessels which jettison all unwanted fish and

[31] Churchill &Lowe, "*The Law of the Sea*", 3rd Edition, p.294, Manchester Press University 1999
[32] *The North Sea Continental Shelf cases*, [1969] *ICJ Rep.*1, at 47, *and the Fisheries Jurisdiction case,* [1974] *ICJ Rep.*3, at 32
[33] Churchill& Lowe, supra note 30
[34] De Klemm, *supra* note 20

other species. The increased demand for shrimp products in the international market also causes the loss of many species of sea turtles[35]. There is also other factors that endanger sea turtles beyond the fishing method. Among them is the traditional practice of hunting sea turtles as a cultural practice in some countries. Another factor is the recreational use of beaches where sea turtles lay their eggs Although the degree of harm would not be as great as the harm caused by industrial fishing, it is justifiable that these other factors also significantly affect sea turtle populations.

The failure of international law to protect sea turtles is justified by the fact that over-fishing practices have increased and in many cases, international trade regulations appear to be in priority while undermining the social, human and environmental impacts of its implementation. The WTO has made it clear that environmental protection comes second to the demands of free trade[36], that is, the demands of industrial shrimp companies that promote the use of unsustainable fishing nets that kill a large amount of sea turtles[37]. There are concerns about the impacts of fishing practices on marine ecosystems. In some fisheries large amount of unwanted fish are caught with the fish being targeted. Much of this by-catch is discarded and most does not survive. In many fisheries there are incidental catch of sea turtles and other marine mammals, sea birds, including some threatened species[38]. This emphasizes the concern that international trade regulations promote over-fishing which is in conflict with conservation measures.

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[35] Lesson learned from the US Turtle Shrimp Case and the operations of shrimp trawlers in coastal countries such as Madagascar

[36] John Pilger, The New Rulers of the World, *in READER* Gender and Trade Network in Africa - GENTA Publications (2001)

[37] *Earth Island v. Christopher* – The Turtle-Shrimp Case 1996

[38] Jonathan Peacey, *The Marine Stewardship Council Fisheries Certification Program: Progress and Challenges*, 2000

In response to this "trade and environment" conflicting situation, alternatives have been developed in many ways through both international and domestic approaches. One of these approaches is the harmonization of tade and environment through certification of natural products in order to balance the use and protection of the resources. This includes the Turtle-Safe Shrimp model through the requirement of turtle excluder device, whichwill be discussed in the later part of this dissertation.

Section 3: Scope of the existing international legal frameworks and the lack of specific provision addressing sea turtles issues

3.1. Customary International Law and the 1982 Law of the Sea Convention

It is worth understanding how sea turtles are exposed to threats during their life cycles[39]where they emerge from and nest on the beaches and swim the oceans. As they do so, they pass through four different legal regimes under customary international law. First when emerging as hatchlings and when returning to beaches to nest, they are within the terrestrial territory of a sovereign State which possesses sovereign rights over the sea turtle. This right is limited by the State's duty not to cause harm to the environment of another State[40]. Second, as the turtle begins its journey back to the sea, it enters a coastal State's territorial sea, in which the State has absolute sovereignty to regulate resources subject to the duty not to cause harm to the environment of another

[39] Many sea turtles nesting areas have been turned into resorts or public beaches. Females searching for nesting beaches avoid lights because dark areas along the horizon indicate land, and lights along a beach look like a starry horizon. Artificial lighting also disorients baby turtles after hatching so they do not head to sea and therefore die. Turtles have been used as food as well for centuries. Their eggs are taken by bucketful, and are located by pushing a stick into the sand until it comes out yellow. The eggs are eaten or fed to pigs or cattle (Castro, et al., 2003, p.182).

[40] Rights and duties of the coastal State in the economic exclusive zone is also regulated by the 1982 United Nations Convention on the Law of the Sea in its Article 56.

State. Third, sea turtles swim into a coastal State's Exclusive Economic Zone (EEZ). Here, again, the coastal State has the sovereign right to use sea turtles, coupled with some conservation duties. Fourth, many sea turtles migrate to high seas. Once on the high seas, sea turtles are offered very little protection. The 1982 LOSC codified these rules of customary international law[41].

3.1.1. The coastal zone and turtles nesting beaches

When turtles are nesting on beaches of a sovereign nation, international law is very clear: States have permanent sovereignty over their natural wealth and resources to be exercised in the interest of national development and the well-being of the people of the State concerned[42].

The coastal space or "coast" is characterized by the interface between land and sea[43], mostly covered by sand, forming the border of a country. Sea turtles nesting beaches are part of the coastal areas where different activities occur. Sandy beaches are very important habitat for sea turtles to lay their eggs. It is important to understand the way how to assure a better management of resources comprised in this costal space[44]. Among the important tool to manage coastal areas is the Integrated Costal Zone Management (ICZM), implemented already in many countries, including the United States, Sri Lanka, South Africa,

[41] Wold, *supra* note 15
[42] United Nations General Assembly, Resolution 1803 (XVII) (Dec. 14, 1962); Declaration to the Right to Development, United Nations General Assembly, Resolution 41/128 (Dec.4, 1986)
[43] Office National pour l'Environnement, Document d'Orientation pour une Politique Nationale de Gestion Integree des Zones Cotieres de Madagascar, 2001
[44] - *id*-

and Madagascar[45]. ICZM can be a better tool to help save endangered sea turtles by integrating and prioritizing coastal activities[46].

3.1.2. Permanent Sovereignty over Natural Resources and State Responsibility

The concept of national sovereignty over natural resources is embedded in international law. Recent international environmental agreements, declarations and resolutions, such as the Convention on Biological Diversity, affirm that" States have, in accordance with the Charter and the principles of international law, the sovereign right to exploit their own resources pursuant to the own environmental policies[47]. Each contracting Party shall integrate consideration of the conservation and sustainable use of biological resources into national decision-making[48].

Nonetheless, the concept of permanent sovereignty over natural resources has its limitations. States have a corresponding general obligation not to harm the interest of other States. The Biodiversity Convention and other international documents impose on State the duty "to ensure that activities within their own jurisdiction or control do not cause damage to the environment of other States of areas beyond the limits of national jurisdiction[49]

[45] Rakotoson (L), Integrated Coastal Zone Management: From International to Regional and National Perspectives", Seminar Paper, Spring 2003

[46] Integrated Coastal Zone Management (ICZM) is a continuous and dynamic process by which decisions are made for the sustainable use, development and protection of coastal and marine areas resources. ICZM provides a mechanism for negotiating acceptable levels of use among often conflicting demands on limited space, and natural, institutional and financial resources *(EUROPA – International Cooperation –The Developing World – Aquatic)*

[47] Biodiversity Convention, *supra* note 8 Article 3. *see also,* Stockholm Declaration, *supra* note 5 Principle 21

[48] Biodiversity Convention , *supra* note 8 Article 10 (a)

[49] Biodiversity Convention , *supra* note 8 Article 3.

This duty and the corresponding liability for any breach of the duty, known as State Responsibility, also is customary international law[50]. Application of the rule, and holding a State responsible for damage incurred, nonetheless, is difficult. First, the environmental damage must result from a violation of international law[51]. In the case of nesting sea turtles, no specific treaty rules or other rules of customary international law seem to apply. Thus, a State will have great difficulty showing that the harm was caused bya violation of international law. Second, the damage must be significant[52]. The damage to sea turtles must be more than a minor incident causing minimal damage[53]. A State is likely to have great difficulty showing that harvesting practices or another threatis causing significant damage to sea turtles, because sea turtles are already threatened and endangered. Moreover, State responsibility applies mainly to the harmful effects of transboundary pollution, not for the protection of a living resource, although more recent international agreements do not make this distinction[54].

As the title of the doctrine suggests, only a State is liable for damage (and only a State can claim damage). Still, a State can be held responsible for the activities of private individual and corporations within its jurisdiction if the State has failed to stop or control the activity in accordance with rules of international law[55]. Thus, if the actions of a private entity in one State causes significant damage to sea turtles or the environment in another State, the State which has jurisdiction over the private entity could be liable for the damage if it has failed to

[50] Corfu Channel Case (UK vs. Albania) 1949 ICJ Reports 4.
[51] Restatement of the Foreign Relations Law of the United States, §601 (2)(a)
[52] - *id* -
[53] - *id* -
[54] Wold , *supra* note 15
[55] Restatement of the Foreign Relations Law of the United States, *supra* note 50 at §601 (3)

implement or enforce conservation rules consistent with customary international law[56].

Because of the many obstacles, the concept of State responsibility is not likely to protect sea turtles from exploitation on nesting beaches and the doctrine of permanent sovereignty over natural resources. The principle of State Responsibility principle may be useful if one State significantly depends on the sea turtles for tourism or other purposes and another State's activity significantly damages that use. The damage must be to the environment of the other country, but the lost revenue is an indicator that the environment has experienced significant damage. If the evidentiary problems are overcome, the State causing the damage could be required to cease the activity and compensate for the damage.[57]

3.1.3. The territorial sea and the EEZ

When sea turtles emerge and hatchlings or depart afternesting, they enter a coastal State's territorial sea[58]. Although the turtle has migrated from a terrestrial existence to an aquatic one, the doctrines of permanent sovereignty over natural resources and State responsibility still apply to the use of sea turtles. Thus, a coastal State has absolute sovereignty, including the right to use sea turtles, within its territorial sea. . This sovereignty is limited only by the responsibility not to use resources to the detriment of other States[59], and the right of innocent passage[60].

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[56] Wold , *supra* note 15
[57] - *Id* -
[58] 1982 Law of the Sea Convention (LOSC) Articles 3,4,5.
[59] State Responsibillity (see section 3.1.1)
[60] 1982 LOSC, *supra* note 57 at Article 17-19

Beyond the territorial sea, sea turtles enter a legal jurisdiction with slightly different rules. In the area extending from the territorial sea to 200 nautical miles from shore[61], sea turtles swim and eat within a coastal State's EEZ or Economic Exclusive Zone[62]. This sovereign right is tempered by rules that are stricter than those of State responsibility. Within the EEZ, coastal States, taking into account the best scientific evidence available, must ensure that the maintenance of the living resources is not endangered by overexploitation[63]. Unlike State responsibility, which applies in the territorial sea and on land, a coastal State must take conservation measures even if the consequences are wholly domestic.

In addition, if sea turtles are a harvested species for mostly cultural use and subsistence, then the coastal State must take measures to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmertal and economic factors, including the economic needs of coastal fishing communities and the special requirements of developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether sub-regional, regional or global[64].

If sea turtles are not targeted species, the coastal State must create conservation and management measures that "take into consideration the effects on species associated with or dependent upon harvested species with a view to maintaining or restoring populations of such associated or dependent species above levels at which their reproduction may become seriously threatened[65]. A

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[61] Precisely EEZ are 188 miles from the edge of 12 miles territorial sea
[62] The EEZ is defined as an area not to extend beyond 200 nautical miles from the baseline from which the breadth of the territorial sea is measured (1982 LOSC Art.57).
[63] 1982 LOSC, *supra* note 57 at Article 61(2)
[64] 1982 LOSC, *supra* note 57at Article 19
[65] 1982 LOSC, *supra* note 57 at Article 61(4)

question remained whether sea turtles are "associated with" or "dependent upon" harvested species. The terms imply a biological or ecological relationship between the harvested and the other species, such aspredator-prey relationship. If such relationship is required, and sea turtles do not have such a relationship with the harvested species, then coastal States do not have the obligation to take measures with a view to maintaining or restoring populations to viable levels[66]. Nevertheless, the situation is complicated once there is no legal measure to protect sea turtles from threats, unless coastal States use their power to regulate the protection of these resources. For instance, one third of newly hatchling baby turtles can not survive to reach the sea because of the predators such as herons swallowing them up[67]. In this case, the phenomenon is natural, however, based on the concept of Permanent Sovereignty over Natural Resources and State Responsibility, the coastal State still have the right and responsibility to set up priority regarding the protection of endangered species through taking specific measures[68].

Moreover, under the rules regulating use of the EEZ, a coastal State could prohibit the taking of sea turtles or require gear modifications to ensure that sea turtles survive when caught. This is where the turtle excluder device (TED) requirements is based on. At best, however, a coastal State only is required to ensure that sea turtle population are not endangered by overexploitation in the EEZ[69]. Nonetheless, if a coastal State takes such measures, it has broad

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[66] Wold , *supra* note 15

[67] BBC, The Blue Planet, DVD1089, 2001

[68] In some cases, the coastal State can set up legislation classifying all species of fauna that need protection, and classifying some species that can be killed because of their nuisance to other species. For instance, a regulation in Madagascar allows the killing of animals that cause nuisance if they disturb the public security, for instance, wild boar, foxes and other predators.

[69] 1982 LOSC, *supra* note 57 at Article 61(2)

enforcement powers to ensure compliance with them. The Law of the Sea Convention vested the authority to coastal States in its Article 73 and provides that

> "The coastal State may, in the exercise of is sovereign rights to explore, exploit, conserve and manage the living resources, in the exclusive economic zone, 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."

3.1.4. The high seas

Once sea turtles leave the coastal State's EEZ, they enter the high seas, another legal regime. Are called high seas all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the intenal water of a State or in the archipelagic waters of an archipelagic State[70]. On the high seas, no State has jurisdiction and no State may validly purport to subject any part of the high seas to its sovereignty[71]. Generally, the high seas are open to all States, whether coastal or land-locked. All States have the freedom of the high seas[72] including the right to fish and navigate on the high seas, fly airplanes over the high seas, lay submarine cables and pipelines in the high seas, construct artificial island and other installations permitted under international law, conduct scientific research in the high seas. These freedoms shall be exercised by all States with due regard for the interests of other States in their exercise of the freedom of the high seas[73]. The international Court of Justice, however, ruled that all States have the duty to take full account of necessary conservation

[70] 1882 LOSC, *supra* note 57 at Article 86
[71] 1982 LOSC, supra note 57 at Article 89
[72] 1982 LOSC, supra note 57 at Article 87 (1)
[73] 1982 LOSC, supra note 57 at Article 87 (2)

measures in conducting its fishing operations[74]. Although it is not legally true that "anybody may exploit, overexploit or destoy species" on the high seas[75], no State has the authority to enforce a conservation obligation on the high seas[76]. States might have other recourse, such as judicial proceedings before the International Court of Justice[77].

According to the 1982 Law of the Sea Convention, "States that exploit identical living resources must negotiate agreements to conserve them[78]. In addition, it includes conservation rules similar to those for the EEZ. For targeted species, States must take measures, based on the best available science, to conserve harvested populations at levels which can support maximum sustainable yield[79]. "If a species is "associated with or dependent upon harvested species", States must take measures designed to maintain or restore these species above levels at which their reproduction may become seriously threatened[80].

3.1.5. Conclusion

The doctrine of permanent sovereignty over natural resourcesdominates the use and conservation of sea turtles on land and within a coastal State's territorial sea and EEZ. The only limitation imposed on this sovereign right is the requirement to prove that the damage is significant. For example, a State is responsible for damage caused in another State but the damage must be

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[74] *Fisheries Jurisdiction Case (United Kingdom v. Iceland)*, 1974 ICJ.3,31, para 72 (Merits)
[75] De Klemm, *supra* note 20 at 938
[76] Edward L. Miles & William T. Burke, *Pressure on the United Nations Convention on the Law of the Sea Arising from New Fisheries Conflicts: The problem of Straddling Stocks,* 20 Ocean Dev. & Int'l L. 343, 351 (1989)
[77] Wold , *supra* note 15
[78] 1982 LOSC, *supra* note 57 at Article 118
[79] 1982 LOSC, supra note 57 at Article 119 (1) (a)
[80] *Id* at Article 119 (1) (b)

significant[81]. In the EEZ, a State must ensure that it does not endanger a species due to over-exploitation[82]. A slightly lower standard applies to species associated with or dependent upon harvested species. Here a State must ensure that the associated species is maintained above levels at which its reproduction is seriously threatened[83]. Or if the species is a target species, then a State must ensure that the species is maintained at levels which can produce a maximum sustainable yield[84]. Similar standards persist on the high seas[85]. These rules could require a State to adopt gear modifications for fishing vessels, but only if the vague biological threshold is met. Nothing in customary international law suggests that a State must protect habitat[86].

As an alternative approach, voluntarily consent of States are in many cases important to restrictions on exploitation of sea turtles in international waters or within one's own territory. These voluntary agreements or treaties do not change the international law principle of Statesovereignty over resources or over norms of customary international law[87]. Even though several treaties limit a State's sovereign rights over its resources, the fundamental legal status of the sea turtles and other species as property to be exploited by the individual States remains unchanged[88]. The importance of this voluntary consent is justified by the need to promote the certification process through the implementation of TED requirements, for instance, as this approach is a better way to reinforce States responsibility over the protection of sea turtles. In other words, certification

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[81] *Id* at Section II Article 198
[82] *Id* at Article 61
[83] *Id* at 61(4)
[84] Id at 61(3)
[85] *Id* at 118 and 119
[86] Wold, *supra* note 15
[87] De Klemm, *supra* note 20 at 939
[88] Wold, *supra* note 15

process officializes this voluntary consent of States to restrictions on exploitation of sea turtles and encourages coastal States to manage and exploit sea turtles in a sustainable manner[89]. However, treaties do suggest a trend towards international cooperation and conservation with regard to migratory species[90].

Section 4: General Principle of International Law

There are some concepts that constrain the coastal State's right to exploit sea turtles. Many of them are already considered part of international law, in particular the concepts of Straddling Stocks and Common Heritage of Humankind which are both derived from the 1982 Law of the Sea Convention; the concept of Shared Resources that is recognized by boththe 1974 Charter of Economic Rights and Duties of States and the 1985 ASEAN (Association of South East Asian Nation) Agreement on the Conservation of Nature and Natural Resources. As a recently emerged principle of international law, taking precautionary action through "precautionary Principle" due to scientific uncertainty is a worth doing action to save the endangered sea turtles.

4.1. Straddling Stocks

Straddling stocks are referred to "stocks occurring within the exclusive economic zone (EEZ) of two or more coastal States or both within the exclusive economic zone and in an area beyond and adjacent to it[91]. For straddling stocks which occur within the EEZs of two or more States, these States must cooperate in the

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[89] The 1992 Convention on Biological Diversity, in its Article 10 (c) provides that each Contracting Party shall as far as possible and as appropriate " protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements." ...and " encourage cooperation between its governmental authorities and its private sector in developing methods for sustainable use of biological resources" (Article 10(e).

[90] de Klemm, supra note 36 at 939

[91] 1982 LOSC, Article 63

development of conservation and harvestmeasures for the management of these stocks[92].

> Where the same stocks of associated species occur both within the exclusive economic zone and in an area beyond and adjacent to the zone, , the coastal State and the States fishing for such stocks in the adjacent area shall seek, either directly or through appropriate sub-regional or regional organizations, to agree upon the measures necessary for the conservation of these stocks in adjacent area[93].

These rules modify customary international law relating to staddling stocks. For stocks occurring in more than one EEZ, a coastal State no longer has the sovereign right to the stock. Instead, it must seek agreement for the conservation and management of the species with other coastal States which share the stock. In addition, a coastal State now can exert some element of sovereignty over stocks that occur in an EEZ and the high seas. States no longer can fish for stocks on the high seas without seeking some agreement with the coastal State[94].

The issue here is that the 1982 Convention does not give a clear and complete definition of "Stock" and the term historically has been used to define fisheries. It is unclear whether the term" stock" refers to sea turtles. The 1982 LOSC uses the terms "species", "stocks" interchangeably. It refers to shared or straddling "stocks", highly migratory species[95], "anadromous stocks[96], catadromous species[97].

The interchangeability with "fish" and "species" makes the definition of the term "stock" ambiguous. In one hand, the Convention's provisions on straddling

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[92] - Id -
[93] - Id -
[94] Wold, *supra* note 15
[95] 1982 LOSC, *supra* note 57 at Article 64
[96] *Id.* at art.66
[97] *Id.* at art.67

stocks can be interpreted as applying to all species[98]. In the other hand, the reference of "stock" to "fish" clarifies that fish species are clearly different from sea turtles species. Therefore, the term "stock" should be clarified whether it includes the species of sea turtles.

This is a justification of the lack of clear legal protection for sea turtles. The 1982 LOSC provision on "highly migratory species"[99] refers to Annex I of the 1982 Law of the Sea Convention[100] which does not include sea turtles species in the list. Moreover, Article 64 (1) emphasizes the activity of "fishing" in the region for the highly migratory species listed in Annex I. The fact that sea turtles species are not included in the Annex I of the Convention would be a justification that sea turtles do not yet beneficiate legal protection and need a specific protection. Moreover, it is not clear either whether sea turtles arepart of *anadromous* species[101]. Anadromous species, in contrary to *catadromous* species[102], are species such as salmon, shad and sturgeon, which spawn in fresh water but spend most of their life in the sea. Article 66 of 1982 LOSC provides that the State in whose rivers such fish spawn (the State of origin) is primarily responsible for their management and shall take appropriate regulatory measures to ensure their conservation[103].

The 1982 Convention does not stipulate nor mention sea turtles as part of anadromous species. In one hand, sea turtles can be considered as anadromous

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[98] Wold, *supra* note 15
[99] 1982 LOSC, *supra* note 57 at Article 64 (1)
[100] List of highly migratory species
[101] 1982 LOSC, *supra* note 57 at Article 66
[102] **Catadromous species** are species, such as eels, which spawn at sea but spend most of their lives in the fresh water. In relation to such species the general rules governing fishing in the EEZ apply, but are supplemented by an obligation on coastal States through whose EEZs catadromous species migrate to cooperate over management (including harvesting) of these species with the State in whose waters the species spend the greater part of their life cycle: the latter State has overall management responsibility for these species (Article 67 1982 LOSC)
[103] Churchill, Lowe, *supra* note 30

for the fact that they lay their eggs on the beach and hatch but spend most of their life in the sea. On the other hand, "spawning in the fresh water" and "nesting on the beach" are not similar situation. Therefore, it is still ambiguous to define whether sea turtles belong to anadromous species category. Thus, the uncertainty whether sea turtles can be protected under Article 66 of the 1982 Convention.

4.2. Rules Relating to Shared Resources

Shared resources refer to resources that do not fall wholly within the territorial jurisdiction of one state, but straddle political borders or migrate from one territory to another[104]. The concept of shared resources is similar to straddling stocks but is broader in scope, because it clearly applies to all species, rivers, mountains and other shared resources[105]. The general obligation concerning shared resources is to use them equitably or harmoniously[106]. This requires cooperation, notification, and consultation between the States that use the shared resources[107].

The ASEAN Agreement specifically adds provisions for partied to conserve, manage, and, where applicable, regulate the harvest of migratory species[108].

The concept of shared resources is still in its infancy and has been slow to develop. The ASEAN Agreement is a good model for themanagement of shared resources. Nevertheless, in terms of focus on marine species, the ASEAN Agreement is less than perfect. It would be more realistic and perfect if it would

[104] Association of South East Asian Nations, Agreement on the Conservation of Nature and Natural Resources, the "ASEAN Agreement", 1985, Article 19.
[105] Wold, *supra* note 15
[106] ASEAN Agreement, *supra* note 103 at Article 19 (1)
[107] - *Id* - at Article 19 (2)(d)-(g), 19 (3)
[108] - *Id* - at Article 19 (2)(c)-(g), 19 (3)

consider more the endangered marine resources such as sea turtles. The Appendix 1 A of the Agreement list 74 species and none of them are marine resources.

With more focus on marine resources, as the members of ASEAN are all coastal States, the ASEAN Agreement can serve as a good model in the South Eastern and Western Indian Ocean regions to manage shared resources. In time though, it may emerge as a general principle which limits States' sovereignty to exploit resources. In regard to sea turtles in particular, States would be required to engage in negotiations for the use and conservation of sea turtles as well as notify, cooperate, and consult with each other to avoid harm to sea turtles. Despite the scope of this management model, the ASEAN Agreement is still a regional approach and need to be taken into account to serve as model toset up international standard to manage shared resources such as sea turtles.

4.3. Common Heritage of Humankind

The Common heritage of humankind is the areas or resources that fall beyond the jurisdiction and sovereignty of any State, exist for the common benefit of all, and whose existence and use affect humans around the world[109]. The notion of common heritage of humankind was conceived by the 1982 Law of the Sea Convention referring to certain resources such as non-living resources of the deep sea bed[110]. States must cooperate in the management of and

[109] Nanda (V), Pring (G), *International Environmental Law & Policy for the 21st Century*, New York, Transnational Publishers, 2003

[110] 1982 LOSC Part XI , Articles 136, 137, 145, 156-185

sustainable use of the resource and share any financial or economic benefits derived from exploitation of the resource shall be equitably shared[111].

In one hand, the common heritage of humankind appears promising as a doctrine for protecting sea turtles, because all States, not only coastal and fishing States, would have rights and obligations. It would require all States to cooperate in any exploitation of sea turtles on the high seas, and perhaps elsewhere depending on the doctrine's application. State also would be required to share any economic benefit from that exploitation, which encourage conservation and reduce the economic incentives to exploit sea turtles.

In the other hand, nonetheless, States have applied the doctrine only to outer space[112], cultural and natural landmarks[113], and non-living resources of the deep sea-bed[114]. Moreover, despite the positive objectives of the doctrine, the legal status of Common Heritage of Human Principle is questionable. The Principle is not accepted as a mandatory legal obligation by national governments. The treaties that specifically include the Principle have been ratified by a limited number of States. Last, the Principle is more of a "philosophical notion" than an international legal reality[115]. Confirming that assumption, even if the provisions of the Law of the Sea Convention[116] states about the equitable sharing of financial and other economic benefits derived from

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[111] 1982 LOSC, *Supra* note 109 at Article 140

[112] Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, Jan 27, 1967, 610 U.N.T.S. 205 (1967). The exploration of the moon and other celestial bodies shall be carried out for the benefit and in the interests of all countries and that these areas shall be the province of all humankind.

[113] 1972 UNESCO Convention for the Protection of World Cultural and Natural Heritage. This convention provides that "the deterioration or disappearance of any item of cultural or natural heritage constitute a harmful impoverishment of the heritage of all the nations of the world...and parts of the cultural and natural heritage..... need to be preserved as part of the world heritage of mankind as a whole".

[114] 1982 LOSC, *supra* note 109 at article 137.

[115] Joyner, *Legal Implication of the Common Heritage of Mankind,* The international and Comparative Law Quarterly 35 (1986); 190-199

[116] 1982 LOSC , *supra* note 57 at Article140 (2)

activities in the Area", there is no appropriate mechanism established to implement that provision and to define an equitable way to share the benefits. The legal status of Common Heritage of Mankind remains uncertain. Thus, its application to sea turtles can be considered only in the distant future.

4.4. Precautionary Principle

The "Precautionary Principle" or the "principle of precautionary action" is a new principle that has been emerging during the past ten years for guiding human activities, to prevent harm to the environment and to human health[117]. This last concept can be used as well to justify the action taken by coastal States and the international community to protect endangered sea turtles, given the fact that the migratory nature of sea turtles emphasizes the uncertainty of the solution to protect sea turtles. Once there are "scientific uncertainty" and "suspected harm", a precautionary action is required[118]. For sea turtles, among the precautionary action could be the establishment of marine and coastal protected areas system and the use of precautionary principle to make management decision making[119].

4.5. Conclusion

In fact, the provisions of the UNCLOS are still not clear whether sea turtles species would be classified among straddling stocks or just considered as shared resources, according to the ASEAN Agreement. There is a possibility to classify sea turtles as part of "*anadromous* species because they are hatchling from the

[117] Montague (P), *Rachel's Environment & Health Weekly*, 1998
[118] Raffensperger (C), The Precautionary Principle, NGO Biotechnology Briefing for White House Officials, June 1999
[119] Wold, *supra* note 15

beach and spend most of their life in the ocean. However, *anadromous* species are defined as species "spawning in the fresh water" that is not similar to "hatchling from the beach". Therefore, this creates an ambiguity and confirms the concern about the lack of clear legal protection for sea turtles.

The General Principles of International Law are important because they are useful tools. Nevertheless, the problem is that these principles tend to be more philosophical and usually do not have legal authority. The General Principles themselves are not enough to be enforced. They should be combined with enforceable law to protect effectively sea turtles. It is up to each Country to implement the principle through its own domestic laws.

Section 5: International Environmental Agreements

5.1. The 1979 Convention on the Conservation of migratory species of wild animals

The closest international legal framework that would protect Sea Turtles is the Convention on the Conservation of Migratory Species of Wild Animals. As sea turtles are migrating species and all endangered, they fall under this convention. Among the objectives of the conventionis stated in Article II of the Convention. It is convened that "1) the Parties acknowledge the importance of the migratory species being conserved and take action to this end whenever possible and appropriate, paying special attention to migratory species the conservation status of which is unfavorable, and taking individually or in cooperation appropriate and necessary steps to conserve such species and their habitat; 2) The Parties acknowledge the need to take action to avoid any migratory species become endangered; 3) The Parties should promote and

cooperate in and support research relating to migratory species; shall endeavor to provide immediate protection for migratory species included in Appendix I (endangered); and shall endeavor to conclude agreements covering the conservation and management of migratory species included in Appendix II[120]. All species of sea turtles are listed in the Appendix I and Appendix II of the 1979 Convention on the Conservation of Migratory Species[121].

These principles confirm the important role individual countries would play in terms of setting up and implement legal measures to protect sea turtles on the domestic level.

5.2. The 1992 Biodiversity Convention

Article 10 of the Biodiversity Convention provides the sustainable use of Components of Biological Diversity. Paragraph (a) integrates consideration of the use of biological resources into national decision-making; paragraph (c) provides the responsibility of each contracting party or State to protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.

Sea turtles species can be protected under the Biodiversity Convention as the Convention encourage customary use of biological resources, which is the case in certain developing countries where local communities use of the sea turtles species is for subsistence and not commercial. In some countries like Madagascar, local communities hunt sea turtles for consumption. The

[120] Article II Fundamental Principles „ Convention on the Conservation of Migratory Species of wild Animal (1979)

[121] Appendix I: *Chelonia midas , Caretta caretta, Eretmochelys imbricata, Lepidochelys kempii, Lepidochelys olivacea, Dermochelys coriacea.* Appendix II: C. spp. , D.spp. (same species in Appendix I)

Convention attributes the rights and duties of traditional communities to use in a sustainable manner the biological resources including sea turtles, while making sure that their practice are compatible with conservation or sustainableuse requirements[122]. When traditional communities are given that authority, they are conscientious about the need for stewardship management of these resources, and they become in many cases the first protectors of these resources. The governments of each country are required by the present Convention to support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced[123].

5.3. The United Nations FAO code of conduct for responsible fisheries

The FAO Code of Conduct for Responsible Fisheries is a United Nations Organization that sets out principles and international standards of behavior for responsible practices with a view to ensuring the effective conservation, management and development of living aquatic resources, with due respect for the ecosystem and biodiversity. The Code would be a better legal mechanism to protect sea turtles. The Code takes into account the biological characteristics of the resources and their environment.

The Code is voluntary with certain parts based on relevant rules of international law: United Nations Convention on the Law of the Sea (UNCLOS). The Code contains a binding provision such as the Compliance Agreement or the 1993 Agreement to promote Compliance with International Conservation Management Measures by Fishing Vessels on the High Seas.That is where sea

[122] 1992 Convention on Biological Diversity, *supra* note 8 at Article 10 (c)
[123] - *Id* - at Article 10 (d)

food certification process fits in[124], in order to operate a sustainable fisheries method to protect endangered sea turtles. Even not addressing to it directly, the Code will protect sea turtles through its requirement for each country to enact responsible fisheries legislation, for instance the sea food eco-labeling law that may include measures such as the TED requirement.

5.4. Conclusion

The major issue discussed above is the lack of international legal protection of endangered sea turtles; that is the lack of an international version of a binding international version of some strong domestic laws such as the US Endangered Species Act for instance. The question is whether international trade rules would still prevail at the moment there were a similar level of natural resources protection through international Law.

The lack of stricter international law protecting sea turtles empowers international trade regulations to become the strongest law in force, which essentially undermines the measures to protect sea turtles. Some domestic laws are stricter than international laws in terms of implementation and enforcement. The setting up of a regulated fishing method standard or certification programs would reduce sea turtle mortality.

An international version of the United States certification program, the Turtle Excluder Device requirement would be able to be interpreted effectively through international organizations such as the Marine Stewardship Council (MSC). The other chapters of this thesis will analyze whether MSC as an international non-governmental organization is entitled to develop international

[124] See section on Marine Stewardship Council (MSC)

standards that are applicable domestically. This moves us into the second Chapter about the Policy Lessons

CHAPTER II: POLICY LESSONS FROM THE UNITED STATES TURTLE EXCLUDER DEVICE (TED) REQUIREMENT EFFECTIVENESS AND CERTIFICATION PROGRAM: FROM ENACTMENT TO ENFORCEMENT

Section 1: The Turtle Shrimp case (Earth Island vs. Christopher)

In 1996, the United States Court of International Trade (CIT) issued a land mark decision in *Earth Island Institute v. Christopher*[125] . In this case, the CIT ordered the US State, Commerce and Treasury Departments to block the importation of shrimp from all nations that had not adopted adequate policies to protect sea turtles. Worldwide, hundreds of thousands of sea turtles are killed each year as a result of shrimp-harvesting operations, in which the turtles drown trying to escape the shrimp nets[126]. The CIT based its ruling on an interpretation of a 1989 amendment to the US Endangered Species Act (ESA). Section 609 calls for the development of a shrimp certification program by theUS federal government. Under this program, any nations desiring to export shrimp to the US must be certified by the US government. The US government can only provide this certification if the exporting nation can demonstrate that it catches shrimp using methods that provide a level of protection to sea turtles comparable to protection provided for under US conservation laws. Foreign countries subject to the certification requirements have filed a formal complaint with the WTO alleging that Section 609 is inconsistent with the United States' trade obligations. The nations bringing the WTO challenge allege that the US sea turtle protection program violates GATT rules that prohibit trade restrictions based on extraterritorial conservation goals and the methodsby which products are

[125] *Earth Island v. Christopher*, 1996 Ct. Int'l Trade, LEXIS 71, SLIP.OP. 96-42. April 10, 1996
[126] Kibel, The Difficult Swim: The Sea Turtle Navigates GATT", in *" The Earth on Trial*, p 117

produced or harvested. If this challenge proves successful, the United States could be subject to countervailing import restrictions, as well as powerful diplomatic pressure to bring its policies into compliance with GATT[127].

Section 2: The US Adoption of a conservation policy that responds to the threats to sea turtles: A Strength

The Sea Turtle litigation presents both strength and weakness.On one hand, the fact that the United States has adopted a policy that responds to the threats to natural resources, especially the sea turtle, represents a strength. In the basis of achieving natural resource sustainability, Section 609 was adopted under a policy that reduces the destructive impact of fishing on sea turtles. The adoption of Section 609 was based on the international environmental concern that the population of sea turtles worldwide is threatened by destructive practices[128]. As sea turtles are migrating species, the United States has responded to that international threat by regulating its objective to protect the worldwide species of sea turtles.

Section 609 mandates the use of the Turtle Excluder Device (TED) TEDs are metal trap-doors attached to shrimp nets that enable turtles to escape nets and thereby escape drowning. A TED is a grid of bars with an opening either at the top or the bottom of the trawl net. The grid is fitted into the neck of a shrimp trawl. Small animals such as shrimp pass through the bars and are caught in the bag end of the trawl. When larger animals, such as marine turtles and sharks are captured in the trawl they strike the grid bars and are ejected through the opening[129]. It is a fact that 125,000 turtles die every year, not to serve as food for

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[127] Kibel, *supra* note 125 at p 118

[128] - *Id* -

[129] Turtle Excluder Devices (TEDs)-Office of Protected Resources- NOAA Fisheries

people, but because they are hauled in and drowned as an unwanted by-catch for target catch such as shrimp and tuna. It is estimated that TEDs can reduce sea turtle mortality from shrimp fishing operations by 97 percent[130]. Although widely criticized, it cannot be denied that the unilateral and coercive properties of the TED obligations contained in Section 609 are what made the measure effective[131].

Section 2: The US indirect implementation of its standards in foreign countries: a weakness

On the other hand, the weakness of Section 609 is evidenced by the US-based certification procedure and the nature of the requirement to use TED. Section 609 provides that import ban on shrimp will not apply to harvesting nations that are certified. Despite the well founded environmental objective of the United States to regulate the "turtle-safe-shrimp" import, it is an issue that the United States requires an extraterritorial application of the US law to foreign countries. According to the 1996 Guidelines[132], the Department of State assesses the regulatory program of the harvesting nation and certification shall be made if the program includes "the required use of TEDs that are comparable in effectiveness to those used in the United States". The US imposed unilaterally a regime of shrimp trade between the United States and shrimp- exporting countries. This would be interpreted as an imposition to foreign countries to comply with US law while other countries might have also their proper certification procedures that protect sea turtles.

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[130] Kibel, *supra* note 125 at p. 119

[131] Magni (L.P.), Are Unilateral Trade Measures Justifiable for Environmental Protection? The Shrimp-Turtle Case in Brazil, Masters Thesis, International Relations Institute, University of Brazil, 2005 p.10

[132] 61 Federal Register 17342, 19 April 1996

The international US shrimp embargo threat lead India, Malaysia, Pakistan and Thailand to question the legitimacy of section 609's extraterritoriality at the WTO Dispute Settlement Body (DSB). The special group's review, distributedin March 1998, concluded that the US shrimp embargo was incompatible with paragraph 1 of Article XI of GATT 1994 and that it could not be justified in virtue of GATT 94[133]. The United States appealed the Group's interpretation of Article XX.

2.1. The WTO Ruling on Extraterritoriality

The WTO decision did not require a change to Section 609 itself or require that the import prohibitions set forth in Section 609 be otherwise lifted acrossthe-board. Rather, the WTO decision found that several aspects of the implementation of Section 609, in their cumulative effect, amounted to a violaton of the obligations of the United States under the WTO Agreement. The modifications to the guidelines set forth in this notice, together with the other measures described in the Federal Register notice issued March 25, 1999, are intended to address the rulings and recommendations set forth in the WTO decision.

The DSB informed that the international application of Section 609 constituted an "unjustifiable discrimination between countries in which the same condition prevails" and noted it contained a delberate and coercive effect in relation to concrete political decision.

[133] Department of State Office of Marine Conservation (OMC) 1998 par 8.1.

The DSB recommended that the US Department of State revise the guideline on August 28, 1998 for use in making the certification process taking into account the complaints of few shrimp exporting countries[134].

2.2. The legality of Section 609 Extraterritoriality: Comparability vs. Efficiency

As recognized in the WTO decision, Section 609 requires, as a condition for certification, that a foreign program for protecting sea turtles in te course of shrimp trawl fishing be comparable to the U.S. program. If a foreign nation adopts a program that seeks to protect sea turtles by modifications to the gear used for shrimp trawling, it may be appropriate to compare, in a numerical sense, the success of such gear modifications in protecting sea turtles to the success achieved through the mandatory use of TEDs. If, by contrast, a foreign nation seeks to protect sea turtles from the effects of shrimp trawl harvesting through other means, e.g., though time and area closures or other non-gear related measures, it may not be appropriate to make the comparison to the U.S. program on a strictly numerical basis[135]. The issue is that even if a shrimp exporting country adopted non-gear related measures that are proven more efficient to protect sea turtles, that country would not be able to export to the US if the terms of Section 609 is not respected[136]. The example of Brazil justifies the limitation of TED requirement efficiency when sea conditions vary fromequatorial to sub-tropical, with differing turtle bycatch rates in the various shrimp fishing

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[134] Public Notice 3013, 64 FR 14481

[135] US Department of State 1999 Revised Guideline for the Implementation of Section 609 of Public Law 101-162 Relating to the Protection of Sea Turtles in Shrimp Trawl Fishing Operations

[136] In Brazil, a research is being planned to assess regions that can prove a by-catch of less than one turtle for every 1000 fishing hours.

regions[137]. There are also some shrimp fishing regions within the Country that provide a local/national market only and without the intention to export to the US but subject to TED requirements. This constitutes a major issue in Brazil as well.

Another important weakness of the TED requirement is the lack of covering the other instances of fishing. There is a high incidence of turtle by-catch in other practices such as longline fishing and lobster fishing with nets where TEDS are not required. As Section 609 targets only the shrimp fisheries, this reduces the overall efficiency of Section 609[138].

2.3. The DSP-121 Form Certification Procedure

Originally when Section 609 of US Public Law 101-162 was established, in November 1989 to mandate the use of TEDs on shrimp trawlers, it was initially applied to 14 countries in the greater Caribbean, Mexican Gulf and Western Atlantic. In May 1991 it became international. Section 609 requires that countries exporting shrimp to the US obtain a certification proving they are using TEDs, thus keeping the United States from importing shrimp from countries who have not adopted such measures.

Because Section 609 is a part of a unilateral US measure with considerable effects worldwide, it will be explored in both its environmental protection and market protectionist facets. This exploration will occur through the lens of the WTO rules regarding the legality of its extraterritoriality and through the international law structure sustaining or condemning such

[137] Magni, *supra* note 130 at p.10

[138] Magni, *supra* note 130 at p 20

measure[139]. The Department of State evaluates the compatibility of other countries' TED programs through official documentation, which may include the transcript of norms, laws and voluntary arrangements between the Government and the fishing agents. In order for the program to be considered equivalent, they need to require TEDs use with all trawl net fishing in water with an incidence of sea turtle. The TED's use needs to have the same efficiency rate of those approved by NMFS, or 97% of turtle liberation efficiency.

Section 3: Enforcement issues and the scope of TED requirement

3.1. Enforcement issues based on the US control of the certification process overseas despite comparability

Despite the 1999 revision of the Guideline, section 609 still consists in a unilateral US measure with considerable effects worldwide. It is justified by the fact that the certification procedure is controlled by the US. In order to certify fisheries, the exporting countries receive a US inspection delegation from the Department of State (NMFS) making sure the law is implemented nationwide, not just in the shrimp exporting region.

Despite the fact that the Revised Guidelines accept comparable measures to protect sea turtles in the harvesting country, it is still the US who controls and monitors the certification process. There is a need for an International Organization to be involved to handle the certification process and the monitoring.Though the legality of the extraterritorial implementation

[139] Magni , *supra* note 130 at p.10

of Section 609 is still questionable, it has been legitimized by the US law and remains effective.

3.2. Enforcement issues based on the Country of origin

Section 609 requires that all shipments of shrimp and products of shrimp imported into the United States must be accompanied by a declaration (DSP-121 Form, revised)[140]. The DSP-121 is the form certifying that the shrimp accompanying the declaration was harvested either under conditions that do not adversely affect sea turtles (as defined above) or in waters subject to the jurisdiction of a nation currently certified pursuant to Section 609. All declarations must be signed by the exporter. The declaration must accompany the shipment through all stages of the exportprocess, including any transformation of the original product and any shipment through any intermediary nation. As before, the Department of State will make copies of the declaration readily available. Local reproduction of the declarations is fully acceptable. For purposes of implementing Section 609, the country of origin shall be deemed to be the nation in whose waters the shrimp is harvested, whether or not the harvesting vessel is flying the flag of another nation[141]. This raises the question about the responsibility and liability of the fishing country if they are not the prior subject to the TED requirement asin the revised guidelines. The financial responsibility and its obligation towards the harvest country remains questionable. In fact the TED requirement has an impact on the Fishing Agreement between harvest nation and fishing countries. As an example, Thailand harvest shrimp in Madagascar. Even if

[140] 1999 US DOS Revised Guidelines, *supra* note 134
[141] 1999 US DOS Revised Guidelines, *supra* note 134

the vessel has the Thai flag, it is Madagascar who is subject to the TED requirement. The DSP-121 should be filed for Madagascar, the country of harvest.

3.3. The Section 609 lacks to regulate non-exporting regions in an exporting country

The implementation of Section 609 is challenged in shrimp exporting countries. TED requirements do not provide regulation of non-shrimp exporter regions in shrimp exporting countries, which create an issue on the national level. The Court of International Trade (CIT) in its ruling[142] determined that the intent of Section 609 should not be limited geographically. By May 1st 1996, the CIT ordered the Department of State (DOS) to implement Section 609 globally. In compliance, the DOS imposed an embargo on shrimp and shrimp products from all uncertified nations starting May 1996. In order to certify and renew certification, the exporting countries periodically receive US inspection delegations from the DOS (NMFS) making sure the law is implemented nationwide, not just in the shrimp exporting region. This justifies the lack of regulation for a non-exporting region in an exporting country.

Section 4: The Challenge in thethe enforcement of Section 609 in shrimp exporting Countries

4.1. Lessons learned from the TED requirement implementation in Brazil

[142] *Earth Island Institute vs. Christopher*, 1996

This section analyses the facts involved in the extraterritoriality of Section 609 in Brazil. It describes the facts leading up to the exportation of Section 609 to Brazil and to the world. In response to the original expansion of Section 609's breadth, in April 1992, the Brazilian Government agreed to equip all shrimp trawlers in Brazilian waters with TEDs[143]. It is important first to define the Brazilian major players in the implementation of Section 609. The Brazilian players include the Government players, the Environmental Organization, and the Fishing Industry. The Governmentincludes the MMA (Ministry of Environment) that has a predominantly legislative role, IBAMA (Brazilian Institute for the Environment and Renewable Natural Resources). TAMAR is the Brazilian Sea Turtle Project. The Brazilian case study of TED implementation not only reveals dynamics of law externalization and law importation, but especially serves to explain Brazilian legislative bureaucracy in the environmental sector. It also sheds light on Brazil's attitude towards US pressure of an alleged environmental nature.

For three trimesters[144] all ships would be complying with the measure. From 1994 onwards, the certification required TEDs to be installed on all national territory, not just on shrimp-exporting regions. Even after the first stage was completed, various Brazilian sectors showed resistance to Section 609 . In 1993, IBAMA's Fisheries Ordenament Division, purported that

> " This department always has held a contrary stance to the US imposition, keeping in mind that studies to determine sea turtle catch in trawl fisheries in the Northern region (Sea of Greater Caribbean) show such catch to be insignificant. [...] to force all Brazilian industrial shrimp fleet to use TEDs without significant capture [of sea turtles] and with most of this fleet not exporting its production to the US is a truly difficult task"[145].

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[143] Magni (LP) Are Unilateral Trade Measures Justifiable for Environmental Protection? The Shrimp-Turtle Case in Brazil. Masters in Compared Politics, University of Brazilia, Brazil, 2005

[144] Decenber 31, 1992, Septembre 30, 1992, and May 1, 1994

[145] Magni , *supra* note 130

Around the same time, CONEPE, the National Council of Fishing Entities sent a letter to IBAMA alerting that "It has been impossible to oblige all national shrimp fleets to use TEDs" emplifying the absurdity of the TED requirement for ships that fish in areas with heavy algae[146]; the lack of scientific evidence supporting the incidence of sea turtles in the fishing areas and the resistance of those vessels who do not export to the United States. Despitethe several requests to limit the TED obligation regionally instead of covering the entire Brazilian coast, Brazilian governmental agents, faced an official threat of having all shrimp exports to the United States vetoed. They succumb to the terms first agreed to, thus the enactment in April 1994 of the national legislation[147] that make TED use mandatory on all industrial trawl fisheries in Brazil. The same legislation states the suspension of the "fishing permit to ships that have not undergone an adaptation of its nets to use TEDs and the penalties involved[148]. Complying with the US guidelines, the 1994 enacted legislation consists of a turtle conservation project in shrimp fishing comparable to the one existing in the US, thereby satisfying Section 609 requirements. In reply to it, the US government released an export certificate allowing Brazil to export shrimp to the United States until May 1st, 1995.

The aforementioned issues on TED implementation in Brazil evidence the need to internationalize the TED requirement through an international organization. The fact that Section 609 is a strong US law, it is enforced at the same level as any US laws without any exception regardless the difference factors in the country of implementation.

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[146] In this view, the algae would slow the passage of TED-carrying vessels, thereby augmenting costs and reducing fishing efficiency.
[147] Brazil *Portaria* 36/94 MMA-IBAMA, 1994
[148] Magni , *supra* note 130

After the enactment of the 1994 National TED law, many shrimp fishing entities expressed their criticism against the nationwide enactment of the Section 609 implementation law in Brazil. Among the interesting criticisms are those regarding the scope of the TED requirement which targets shrimp fishing only. There is a high incidence of turtle by-catch in other instances of fishing, such as longline fishing and lobster fishing with nets, where TEDs are not required. This reduces the overall efficiency of Section 609's requirements, which focus solely on shrimp fishing. Another major criticism regards the non-consideration of the shrimp fishing regions that are not exporting to the United States but have to respect the TED requirement[149]. Consequently, in 1995, only the Northern exporting sector was truly cooperative in using TEDs. Some of the shrimp fishing industries rejected openly the obligation to meet the TED requirements and denied the validity of the national measure. In consequence, the denial of the validity of the national legislation on TED could cost Brazil its certification.

In 1996, Brazilian shrimp exports to the United States were contingent on Brazilian compliance with TED use and its efficient implementation of a nationwide TED program. Brazil has been prohibited from exporting shrimp to the United States on this presumed environmental ground on various occasions, and to this day is not free from embargo threat[150]. The creation of the Inter-American Convention for the Conservation and Protection of Sea Turtles (IAC) would make the situation a bit different as the Convention contains measures comparables with the US program governing the incidental taking of sea turtles in the course of shrimp harvesting[151].

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[149] - *Id* -
[150] Magni , *supra* note 130
[151] - *Id* -

4.2. Lessons learned from the TED requirement in Mozambique

Mozambique is located in the East Coast of Africa with a coastline of 2700 km characterized by several marine/coastal ecosystems[152]. Mozambique shares the *Mozambique Canal* with Madagascar which is located 250 nautical miles away. Five species of sea turtles are recorded including the green turtle, the hawksbill, the olive Ridley, the loggerhead and the leatherback. Green turtle, hawksbill and olive ridley are typically found in the north of the country, while loggerhead and leatherback nesting occurs in the south[153].

Unlike the Brazilian experience, the implementation of TED requirement in Mozambique has been the initiative of shrimp industries and TEDs were manufactured locally according to materials available locally, the size of shrimp trawling nets and the fishing regulations of Mozambique. Mozambique was among the few advanced countries in the Western Indian Ocean that adopted the use of TED in shrimp trawler nets.

Back in the year 2001, TED use in shrimp trawlers was not regulated. Despite the initiative, the fishing authorities have not yet promoted the certification of the shrimp caught with the use of TEDs, for those shrimp operators, who voluntarily adopt it, while there is not still a legal mechanism forcing its use. This would open the US market for Mozambican shrimp, and this eventually could encourage other operators to do so[154]. In 2001, Gove *et al* (2001) recommended the Mozambique Fishing Authorities, in particular, and to

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[152] FAO, Report of the Workshop assessing the Relative Importance of Sea Turtles Mortality Due to Fisheries, Zanzibar, United Republic of Tanzania, 25-28 April 2006

[153] FAO, *supra* note 151

[154] Gove (D), Pacule (H), Gonçalves (M), The Impact of Sofala Bank (Central Mozambique) Shallow Water Shrimp Fishery on Marine Turtles and the Effect of Introducing TED (Turtles Excluder Devices) on Shrimp Fishery, December 2001

the Government, in general, to consider the introduction of TEDs in commercial trawl fisheries within the country. The acceptance of this recommendation calls for two subsequent activities, namely the training of shrimp trawler operators on the construction and use of TEDs and the introduction of TEDs in the Fishing Law.

Generally, there were different points of view regarding the use of TEDs in the WIO region.

> Although TEDs are used widely in the Western Hemisphere, they are not employed extensively in shrimp and other trawl fisheries around the world (Kempf, 2000). The main causes for that could be the lack of information about their existence and lack of demonstrative experiments, in collaboration with trawler operators, to show the benefits or advantages of using TEDs on shrimp fishery[155].

According to Randriamiarana *et al* (1998), discussions with industrial shrimp fishermen in Madagascar indicated that they are not reluctant to use TEDs, but they question whether TEDs are really necessary and state that there should be scientific studies to confirm locally the applicability of TEDs.

The National Directorate for Forestry and Wildlife under the Ministry of Agriculture is responsible for the conservation and management of forestry, wildlife (including sea turtles) and protected areas. Maritime authorities are responsible for controlling the coast as well as coastal and marine resources in those areas. At Inhaca Island, activities for the conservation of all resources including sea turtles are carried out by the Department of Biological Sciences of the Eduardo Mondlane University.

> The legal platform for turtle conservation is mainly provided by the Mozambican hunting Law 7/1978 and Decree 117/1978, which protect marine turtles. In addition, there are specific regulations such as Law 20/1997 (protecting turtle habitat and the environment), and Decree 12/2002 and Decree 43/2003 which prohibits the collection of turtles through fisheries practices and specifically mandates the use of Turtles Excluder Devices in shrimp trawling operations. TEDs, although compulsory, are not widely used nor

[155] FAO, *supra* note 151

enforced, and a campaign to convince the fishing industry about the advantages using TEDs, was planned for 2006. The Decree will be fully implemented in 2007[156].

As of year 2003, both Mozambique and Madagascar adopted the TED requirement into their legislation. In Madagascar, the Government enacted Decree 2003-1101 of 11/25/2003. Article 12 (New) provides that it is required for all trawlers operating in the West coast of Madagascar to use BRD (Bycatch Reduction Devices) and TED (Turtles Excluder Devices) in both the West and East Coast of Madagascar[157].

Section 5: Conclusion

There are three main factors that cause, allow and sustain the existence of the internationalization of Section 609. These factors are respectively the domestic pressure on US congress, both from environmentalists and shrimp lobbyists; the insufficiency of international law, both environmental and commercial to legislate in favor or against the measure; and the global opinion on sea turtles conservation policies[158]. The insufficiency of international law is a justification of the need for a global approach to protect sea turtles.

The TED requirement is a good principle and model for many exporting countries to follow in order to certify their products within their own countries. The certification procedure should be based on each Country's environmental standard in order to make the process environmentally sensitive and politically correct.

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[156] - *Id* -

[157] Article 1 du Décret 2003-1101 du 25 Novembre 2003 modifiant certaines disposition du Décret 71238 du 12 Mai 1971, réglementant l'exercice de la pêche par chalutage dans la mer territoriale malgache.

[158] Magni , supra note 16

Thus, if the principle of worldwide applicability of the certification process seems to be the best way to implement the TED requirement, a better way to approach it would be the adoption of an international certification program.

CHAPTER III: THE IMPORTANCE OF SEA FOOD ECOLABELLING AS A MEAN TO PROTECT SEA TURTLES

The failure of international environmental law to protect sea turtles was demonstrated in the earlier chapter. The present chapterwill address this question and focus on the legal mechanisms providing protection of sea turtles species under other aspects of international environmental law, notably the option of developing ecolabelling standards as an effective tool to protect sea turtles on the global level. It will address specifically the issue that the TED Requirements considered as the US ecolabelling standards should be adopted on the global level to avoid the extraterritorial application of the US law in foreign shrimp exporting countries while the certification process itself is proved effective. Also, I defend that there should be an appropriate international organization or special institution to implement and enforce the ecolabelling standard worldwide. Two interrelated options are presented: the UN FAO Code of Conduct for Responsible Fisheries (CCRF) itself through the FishCode (FAO program to promote responsable fisheries) and the Marine Stewardship Council (MSC) as an independent organization implementing the FAOCCRF[159]. The following notion of Ecolabelling justifies the important role played by the FAO Code of Conduct and MSC in the development and implementation of ecolabelling standards.

Section 1: Notion of Ecolabelling

An ecolabel is a seal-of-approval that is affixed to a product to certify that it was harvested or processed in a way that did not harm the ecosystem including the habitat and the species. "A subset environmental labeling is ecolabelling that

[159] WWF/Unilever *The Marine Stewardship Council*, DVD Presentation, 2000

rely on independent third party verification that the products meet certain environmental criteria or standards[160]. According to Preiss and Salzman, Ecolabels are seals of approval given to products that are deemed to have fewer impacts on the environment than functionally or competitively similar products[161]. Environmental labels can be either mandatory or voluntary.

According to the WTO Committee on Trade and Environment, mandatory labels are government-backed and could act as a trade restriction for foreign producers (i.e., imports may be rejected if they do not comply)[162]. This is the case of the US TED requirement. The "TED certificate" is a mandatory ecolabel as Section 609 contains sanctions such as import rejection if the shrimp export country fails to comply with the TED requirements. On the other hand, imports of products that do not comply with voluntary labels are not restricted. In the case of voluntary labels, it is up to the manufacturer to decide whether or not to apply for certification of the product, and the consumer's choice whether to buy (or import) an ecolabelled product. Voluntary ecolabelling programs may be funded and supervised by the private sector[163]. Some, however, are government sponsored[164].

1.1.Labels for Sustainability

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[160] US EPA 1998

[161] See OECD 1991 Environmental Labelling in OECD Countries, OECD Report 12; See also Erika Preiss 1997. An Ecolabel for Shrimp: Minimizing Potential Trade Barriers, Mimeograph prepared for International Environmental Law Clinic at NYU School of Law International Environmental Law Clinic at NYU School of Law.

[162] WTO/Committee on Trade and Environment , Ecolabelling Overview of Current Work in Various International Fora, Note WT/CTE/W/45, WTO, OECD, Geneva – 1997a. *Processes and Production Methods (PPMs): Conceptual Framework and Considerations on Use of PPM-Based Trade Measures,* OECD Paris – 1997b. *Ecolabelling: Actual Effects of Selected Programmes,*OECD, Paris.

[163] This is the case of the Marine Stewardship Council (MSC)

[164] Germany became the first country with a government-sponsored ecolabelling programme when it began its Blue Angel label in 1977. The Blue Angel has appeared on products ranging from recyclable paper to detergents, vacuum cleaners and oil and gas heating appliances.

The goal of ecolabelling programs is to create market-based incentives for better management of fisheries and aquaculture by creating consumer demand of sea food products from well-managed stocks and aquaculture farms. The potential usefulness of ecolabelling schemes to create market-based incentives for environmentally friendly products and production processes was internationally recognized at the 1992 United Nations Conference on Environment and Development[165].

Wessells *et al* assessed the international instruments that are relevant to the sustainability of ecolabelling[166].

Sutton of the Monterey Bay Aquarium, California affirmed that "there is a wider recognition now that fisheries are in trouble. Public policy alone is incapable of replenishing fisheries. We need to harness the power of commerce. That's where changes come from. The seafood industry deserves credit. Companies are stepping up to the plate and recognizing that sustainability is the wave of the future"[167]. Sutton's affirmation about fisheries being in trouble is correct. Though, fishery depletion is one aspect of the marine conservation issues. The issue subject of discussion here is the impact of shrimp fishing to thefew left and endangered population of sea turtles. The integration of fisheries management and sea turtles protection is an important element of sustainability.

1.2. International Trade Rules Providing Ecolabelling

[165] Wessells *et al.*, Product Certification and ecolabelling for Fisheries Sustainability, FAO Technical Papers-T422, 2001, 83 p

[166] 1982 United Nations Convention on the Law of the Sea and ensuing instruments, notably the 1995 Agreement on the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stock, the 1995 FAO Code of Conduct for Responsible Fisheries, the 1993 FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (Compliance Agreement), the Agenda 21 of the UNCED, and 2002 World Summit for Sustainable Development,

[167] Hedlund (S), MSC Reaches Tipping Point, Seafood Business Top Story, January 2007

Ecolabelling has been the subject ofa few international instruments such as the 2001 WTO Ministerial Declaration, and the Agreement on Technical Barriers to Trade negotiated in the Uruguay Round. The common provision of the above instruments is that WTO rules need to be adjusted to enable use of ecolabels and that an international convention be negotiated which each country would then apply in its national law[168].

Paragraph 32 (iii) of the WTO Doha 4th Ministerial Declaration in 2001 provides that "WTO instruct the Committee on Trade and Environment (CTE), in pursuing work on all items on its agenda within its current terms of reference, to give particular attention to labeling requirements for environmental purposes".

The superposition of regulations governing both environment and trade has been an issue. For example, the US Endangered Species Act (ESA) is a domestic law that has been recognized as "having teeth" for the fact that it has been very effective in its ability to ban or stop any projects that damage or threat any particular endangered species[169]. Now ESA seems to become weakened by the more recent free trade agreement and regulations in favor of the free trade policy. The Convention for International Trade of Endangered Species (CITES) I is still an effective and strict convention implemented in many countries. Regardless of the worldwide importance of CITES, WTO has made it clear that environmental protection comes second to the demands of free tradeand the demands of multinational corporations. As a result, there is a justification for the need to use an alternative approach to protect the ocean through ecolabelling.

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[168] Australian APEC Study Centre, The Trade and Environment Handbook, 2002

[169] Justified by the Tennessee Valley Authority case while the construction of a huge dam had to be stopped because of the discovery that the site was a habitat of an endangered small fish called "snail darter".

On a global level, WTO and the organizations of the United Nations FAO are the main actors shaping the regulatory framework on trade in fishery products. WTO provides the institutional structure for the opening of world markets, whereas FAO addresses the issues of sustainable development, environmental conservation and food security as targets world trade liberalization must meet. The WTO system is based on a series ofagreements whose aim is the gradual opening of international markets in goods, services[170] and trade inventions[171].

The WTO Committee on Trade and Environment (CTE) was created[172]to identify the relationship between trade and environmental measures in order to promote sustainable development. Another mandate for the CTE is to make appropriate recommendations on whether any modifications of the provisions of the multilateral trading systems are required, compatible with the open, equitable and non-discriminatory nature of the system.

There is also the TBT (Technical Barriers on Trade). The WTO Agreement on Technical Barrierson Trade (TBT Agreement) tries to ensure that regulations, standards, testing and certification procedures facilitate trade and do not give rise to unwarranted protection for domestic producers. The 1994Agreement was part of the outcome of the Uruguay Round and extends and clarifies the 1979 Agreement that was reached in the Tokyo Round of multilateral trade negotiations. It requires that technical regulations and standards, as well as testing and certification procedures be transparent, justified by legitimate

[170] GATS - General Agreement on Trade in Services
[171] TRIPs- Trade Related Intellectual Property Rights
[172] The ministerial Decision on Trade and Environment, adopted at the Uruguay Round (1994) called for the stablishment of a Committee on Trade and Environment.

objectives, such as national security, prevention of deceptive practices, human health and safety, animal and planet life and health, or environmental protection, and do not create unnecessary obstacles to trade. Countries have the right to pursue domestic policy objectives through technical regulations and conformity assessment procedures; however, when designing these measures, they are required to use relevant international standards, if these exist and would be effective and appropriate[173].

> The TBT Agreement covers all technical measures (regulations, standards, testings and certification procedures) relating to any product or process and production method, except sanitary and phytosanitary measures, which falls under the auspices of the Agreement on Sanitary and Phytosanitary Measures (SPS Agreement) and the technical specifications related to government procurement, which are covered by the plurilateral Agreement on Government Procurement.. Examples of measures that might fall under the TBT but not the SPS Agreement include technical regulations and procedures concerning composition and packaging, marking and labeling, process and production methods, and final product characteristics. Measures based on product requirements are supposed to be specified in terms of performance rather than design or descriptive characteristics.[174]

Both the TBT Agreement and the WTO/CTE's agenda give particular consideration to labelling requirements for environmental purposes. This is a justification that despite the WTO decision for the Turtle-Shrimp case[175] and the allegation that "the US Section 609 violates the GATT rules that prohibit trade restrictions based on extraterritorial conservation goals and the methods by which products are produced or harvested", there is always room for exception within WTO through its Committee on Trade and Environment to recognize the importance of ecolabelling. It is a reality that balancing the environmental and trade interest is still a big challenge for WTO. However, given the absence of a

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[173] Jones (W), Walkenhorst (P), The impact of Regulations on Agro-Food Trade: The Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary Measures (SPS) Agreements, OECD 2003)

[174] *-Id-*

[175] *Earth Island v.Christopher,* (1996)

comparable worldwide environmental institution in the same rank as the WTO (for instance a "World Environment Organization"), at least the recognition of TBT Agreement or CTE Agenda on ecolabelling is an open way to acknowledge that an effective domestic environmental measure such as the Section 609 that "has teeth" could make a difference and be used on the global level as an effective measure to ban any project that threat the sea turtles. As mentioned in this chapter, management decisions now should be based on the precautionary principle, even the more strict international trade rules because of the imminent danger the world is facing due to the global warming.

Section2: The United Nations FAO Code of Conduct for Responsible Fisheries: a soft law political instrument or a hard customary law?

The FAO Code of Conduct for Responsible Fisheries (CCRF) sets out principles and international standards of behavior for responsible practices with a view to ensuring the effective conservation, management and development of living aquatic resources, with due respect for the ecosystem and biodiversity. The Constitution of the Food and Agriculture Organization created FAO in order to improve efficiency in the production and distribution of food and agricultural products[176]. "Food" includes fisheries and marine products. FAO powers include the ability to promote research, improve education and public knowledge, provide assistance to governments, encourage the adoption of international policies and make recommendations on the conservation of natural resources[177]. Using the latter two powers, FAO have initiated the drafting, promotion, andimplementation

[176] Preamble to FAO Constitution. www.fao.org. January 13, 2005
[177] Preamble to FAO Constitution Article 1.2 and 1.3

of a series of soft law fishery instruments. These instruments include the FAO Code of Conduct for Responsible Fisheries. Under the framework of the Code of Conduct , four FAO International Plans of Action[178].The Code recognizes the nutritional, economic, social, environmental and cultural importance of fisheries and the interests of all those concerned with the fishery sector. The Code takes into account the biological characteristics of the resources and their environment and the interests of consumers and other users. States and all those involved in fisheries are encouraged to apply the Code and give effect to it.

Section 2: The FAO FishCode as an implementation tool for the FAO Code of Conduct for Responsible Fisheries

Based on its original concept, the FAO Code of Conduct plays an important role as a basis to set up international standards for sustainable fisheries practices around the world Article 6 (6) of the Code urge that States "should"[179] develop further selective and environmentally safe fishing gear in order to maintain the biodiversity, minimize waste, catch of non-target species, etc... The non-mandatory legal languages such as "States should' or "States are encouraged to" characterizes soft laws that do not have mandatory status. Compared to other binding international instruments, the Code lacks the

[178] Under the framework of the FAO Code of Conduct for Responsible Fisheries, there are four (4) International Plan of Actions (IPOAs), notably the International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks) ; The International Plan of Action for the Management of Fishing Capacity (IPOA-Capacity) ; The International Plan of Action on Illegal, Unreported and Unregulated Fishing (IPOA-IUU) ; and the International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries (IPOA-Seabirds). Unlike treaties which are hard law instruments, soft law instruments such as the Code of Conduct, the IPOAs, and the 2005 FAO Guidelines to Reduce Sea Turtles Mortality in Fishing Operations are not intended to give rise to any legally binding obligations[178].

[179] "Should" is used to show its status as voluntary instrument

enforcement mechanism and continues to be viewed as soft law[180]. The Code requires that management decisions should be based on sound scientific evidence and on application of the precautionary approach where scientific information is lacking. Despite the non-binding status, the Code has an implementation program launched through the FishCode. In 1995, members requested FAO to respond to the special requirements of developing countries through the establishment of an Interregional Assistance Programme for its implementation[181]. "FishCode was established by FAO/COFI (Committee of Fisheries) as a program of global partnership to promote responsible fisheries. It now serves as a principal means through which the Department of Fisheries seeks to combine regular budget and trust fund resources in support of activities to facilitate the implementation of the Code and related international fisheries instrument"[182].

FAO expanded FishCode through further global and regional projects covering a range of Code areas, implementation of the International Plans of Actions (IPOAs); advisory assistance on fisheries policy, planning and management , and improved legal and institutional arrangements; upgrading capabilities in Monitoring, Control and Surveillance (MCS); implementation of the strategy, initiatives in the ecosystem approach to fisheries and integrated

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[180] Article 1 of the FAO Code of Conduct defines the nature and scope of the Code, stating that the Code is voluntary. However, certain parts of it are based on relevant rules of international law, including those reflected in the **United Nations Convention on the Law of the Sea UNCLOS 1982**. The Code also contains provisions that may be or have already been given binding effects by means of other obligatory legal instruments amongst the parties, such as the **Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on High Seas, 1993**, which forms an integral part of the FAO Code of Conduct.

[181] FAO /COFI, Progress in the Implementation of the Code of Conduct for Responsible Fisheries and Related International Plans of Action , 26th Session, Rome ,Italy, 7-11 March 2005

[182] Report of the Twenty Sixth Session of the Committee on Fisheries, FAO Fisheries Report, Rome 2005

coastal zone management; including umbrella support to non-governmental organizations.

FAO FishCode holds great potential as an instrument implementing the FAO Code as the latter provides international guidance on sustainable fisheries including technical annexes dealing with fisheries operations such as surveillance[183]. "Monitoring, control and surveillance" (MCS) is an integral component of responsible fisheries management. 'Monitoring' refers to the process of collecting and processing data on fishing activities and the resource. 'Control' refers to the regulation of fishing activities such as rules about fishing and licensing of vessels. 'Surveillance' refers to the process of checking that the rules are complied with. Patrolling the fishing grounds is just one aspect of surveillance[184].

Furthermore, according to Birnie and Boyle[185], soft law international instruments are carefully negotiated and drafted with "an element of good faith commitment, an expectation that they will be adhered to if possible, and in many cases, a desire to influence the development of state practice".This serves as justification that even if soft laws are not legaly binding, based on the element of good faith, they can always be implemented through different ways. There are factors that need to be considered that would be a guarantee for the implementation of soft laws such as the precautionary principle.

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[183] Management is defined as the "process of collecting information, analysis, planning, consultation, decision-making, allocation of resources and formulation, implementation and enforcement as necessary of rules to ensure continued productivity of resources and other policy objectives."

[184] Cooke (A), Vers l'exploitation durable des pêches à Madagascar : Le rôle stratégique de la surveillance des pêches avec des reflexions sur son aménagement institutionnel, Rapport Préliminaire, CSP 2001

[185] Birnie (P), Boyle (A), International Law and the Environment 25, 2nd Edition, 2002

This chapter justifies the importance of the FAO Code of Conduct to develop ecolabelling standards on the global level. Two options are analyzed in this chapter as both potential certification organizations. Both organizations were created to implement the FAO Code of Conduct for Responsible Fisheries. These are notably the FishCode and the Marine Stewardship Council (MSC) as potential private certification organization that can be an instrument of theFAO Code of Conduct. The bottom line is to come up with an international body which is suitable to develop certification standards based on the same principle that enacted the US section 609 providing the Turtle Excluder Device Requirement. The following section will analyze the nature ofthe IPOA as an element of the FishCode to implement the FAO Code of Conduct.

Section 4: The FAO International Plan of Action (IPOA) on Sea Turtles

4.1 The challenge on implementing existing IPOAs

The lessons learned from the enactment of FAO IPOAsare that first, implementation of the four IPOAs is not evident. FAO has difficulties implementing IPOAs. Challenges include non-compliance of the Plans by the States. Lugten's statistics indicate that

> "whilst 69 members reported that they have longline fisheries, only three of these States have taken steps to address the IPOA-Seabirds. The second lowest ranking is held by other species-specific IPOA, the IPOA-Sharks. Only 6 States out of responding total of 134 have compiled with the IPOA-Sharks by implementing their own national plans of action. A further eleven States are in the process of addressing the IPOA-Sharks. The IPOA-Capacity revealed nine States that has addressed the plan and 42 States that were in the process of addressing. The IPOA-IUU revealed 47 States that had addressed the Plan, and 23 States that were in the process of addressing the Plan"[186].

[186] Lugten (G), Softl Law with Hidden Teeth: The Case for a FAO International Plan of Action on Sea Turtles, JIWLP, Vol 9, 2006

The statistics above justifies the lack of compliance by the States even if they have signed up to implement the Action Plans. Lugten's findingconcluded that:

> "recurring constraint for implementing all FAO IPOAs were : 1. a lack of political will to support implementation ; 2. fisheries not being assigned a high national priority because of their small economic contribution ; 3. the fisheries sector being poorly organized. These constraints are primarily driven by economics, and if we apply the same constraints to the plight of sea turtles, then: 1.turtles have an even smaller economic contribution to State budgets than fisheries do, and therefore they are unlikely to be assigned a high national priority; 2. without an economic priority status, there will be a lack of political will by nation states to address the plight of sea turtles; 3. if the substantial fisheries sector (which at least constitutes an industry in many states) is seen as 'poorly organized' , the prospects are not encouraging for an organized sea turtle sector working towards conservation or protection"[187].

Lugten's statement above is true about the lack of political will to support implementation of IPOAs and the poor organization of the fisheries sector. This can be due to the economically driven politics in many States. However,the affirmation that 'fisheries not being assigned a high national priority because of their small economic contribution" is not accurate in many cases. In most coastal States depending on their size, fisheries constitute a major industry. For instance that is the case of the following countries: Madagascar, Mozambique, Brazil, Chili, Thailand,. Moreover, Lugten affirms that according to FAO/COFI "turtles have an even smaller economic contribution to State budgets than fisheries do, and therefore they are unlikely to be assigned a high national priority". This statement appears too general and ignores thefact that not protecting sea turtles significantly affects the national economy of fishing dependent countries at least in regard to the shrimp sector.

The four FAO IPOAs address their subjects by incorporating the precautionary principles of the Code of Conduct, while focusing on specific

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[187] *-Id-*

problems in contemporary fisheries management[188]. The precautionary principle is important as a basis for the implementation of a soft law. By its nature,the precautionary principle, as defined by Wilkipedia Encyclopeda[189], can drive soft law to become hard law.

For shrimp exporting countries, sea turtles indirectly have a greater economic contribution due to the fact that non compliance to the TED requirement may result in significant economic impact to these countries; for instance due to embargo or denial of port of access to shrimp vessels that are not equipped with TEDs. Therefore, protecting sea turtles indirectlywould have a greater contribution to the States budget as sea turtles arean important factor for the sustainability of the shrimp industry, at least for those who export to the United States who is the major shrimp consumer in the world.

4.2. Whether it is necessary to develop an IPOA-Sea Turtles

The aim of this chapter is to demonstrate the importance of eco-labeling as a means to protect sea turtles. In reciprocity, protecting sea turtles can be

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[188] *-Id-*

[189] The **Precautionary Principle** argues that if an action or policy might cause severe or irreversible harm to the public, in the absence of a scientific consensus that harm would not ensue, the burden of proof falls on those who would advocate taking the action. The precautionary principle is most often applied in the context of the impact of human actions on the environment and human health, as both involve complex systems where the consequences of actions may be unpredictable. As applied to environmental policy, the precautionary principle stipulates that for practices such as the release of radiation or toxins, massive deforestation or overpopulation, the burden of proof lies with the advocates. [1] (http://www.biotech-info.net/rachels_586.html).
An important element of the precautionary principle is that its most meaningful applications pertain to those that are potentially irreversible, for example where biodiversity may be reduced. With respect to bans on substances like mercury in thermometers, freon in refrigeration, or even carbon dioxide exhaust from automobile engines and power plants, it implies: "a willingness to take action in advance of scientific proof or evidence of the need for the proposed action on the grounds that further delay will prove ultimately most costly to society and nature, and in the longer term, selfish and unfair to future generations."[2] (http://dieoff.org/page31.htm).
The concept include a risk prevention, cost effectiveness, ethical responsibilities towards maintaining the integrity of natural systems, and the fallibility of human understanding. The principle can also be interpreted as the transfer of more generally applied precaution in daily life (eg.buying insurance, using seatbelts or consulting experts before decisions) or larger political arenas, even though these relatively trivial applications are not the intended use of the precautionary principle.

beneficial for an importing country to secure the shrimp industry. There is no doubt about the necessity to develop an IPOA-Sea Turtles. Although there is a clear need for an international law (soft or hard) on conservation and management of sea turtles, the COFI decision to not prepare new IPOAs before there was better compliance with existing IPOAs was probably the most sensible decision to take[190]. The fact that the protection of sea turtles through IPOA-Sea Turtles is sacrified because of the non-compliance of the previous four IPOAs is not well founded. The development of an IPOA- Seaturtles would be a strong basis for the future international turtle excluder device (TED) requirement. The economic incentive behind the TED requirement becomes its enforcement engine. An example of the enforcement engine is for instance the embargo or the denial of port of access to shrimp vessels that are not certified. With an international TED requirement implementing it, the FAO IPOA-Sea Turtles becomes itself a hard law. I share the same view as Lugten describing FAO IPOAs as a soft law with "hidden teeth"[191].

> Whilst it is true that the IPOAs do not *prima facie* constitute 'law' as the sources of international law are set forth in Article 38 (1) (b) of the Statute of the International Court of Justice, international lawyers are in agreement that soft law may evolve into hard law[192].

The question is whether this transition involves a soft law being re-negotiated as a hard law treaty, or can hard law status be achieved by the customary adherence of states to the soft law instrument itself. Article 38(1)(b) of the Statute of the International Court of Justice defines customary law as "an international custom, as evidence of a general practice accepted as law". In the words of Lugten there are two pivotal

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[190] Lugten (G), *supra* note 185
[191] Lugten (G),*supra* note 185
[192] See Antonio Cassese, International Law 161 (2001)

concepts in this wording : they are the 'practice' of states and 'acceptance' of the practice. In other words, there is a"doing"element of practice and a "thinking or psychological" element of accepting the practice as obligatory[193]. In the words of Birnie and Boyle, "both conduct and conviction on the part of the state are required before it can be said that a custom has become a law"[194].

Section 5: The Marine Stewardship Council (MSC) as an Implementation mechanism for theFAO Code of Conduct for Responsible Fisheries

5.11. Legal status and mission of MSC: MSC standard-setting based on the FAO CCRF toward the best fishing practice management

The Marine Stewardship Council (MSC) is an independent, global, non-profit organization which has developed a certification standard for sustainable and well-managed fisheries. The MSC was established in 1997 by Unilever and WWF to harness market forces as an incentive to improve management of fisheries. If a fishery achieves certification, companies selling products from the fishery are eligible to use the MSC Logo, providing they can demonstrate traceability of the product to a certified fishery, by the way of a chain of custody assessment. Immediate management improvements resulting from certification include improved research, management and data collection, which were required as conditions of certification[195]. Initial indications suggest increased demand on the MSC's ability to address challenges including: winning and maintaining the confidence of all stakeholders; building public awareness of the

[193] Lugten, *supra* note 185 at 167
[194] Birnie (P) *et al*, *supra* note 184
[195] Peacey (J), "The Marine Stewardship Council Fisheries Certification Program: Progress and Challenges", 2000

MSC Logo; ensuring the MSC Standard is relevant to all commercial capture fisheries; and keeping on the right side of international trade rules.

The MSC Principles and Criteria are designed to recognize and emphasize that management efforts are most likely to be successful in accomplishing the goals of conservation and sustainable use ofmarine resources when there is full co-operation among the full range of fisheries stakeholders, including those who are dependent on fishing for their food and livelihood. The MSC Principles and Criteria were developed on the assumption that a sustainable fishery is defined, for the purpose of MSC certification, as one that is conducted in such a way that:

- It can be continued indefinitely at a reasonable level
- It maintains and seeks to maximize, ecological health and abundance
- It maintains the diversity, structure and function of the eco-system on which it depends as well as the quality of its habitat, minimizing the adverse effects it causes
- It is managed and operated in a responsible manner, in conformity with local, national and international laws and regulations
- It maintains present and future economic and social options and benefits
- It is conducted in a socially and economically fair and responsible manner[196].

There are in sum three MSC principles: the first principle emphasizes the status of the targeted stock(s), the second principle emphasizes the status of the eco-system with which the targeted stock is associated, and the third principle

[196] www.msc.org (fisheries)

concentrates on two key aspects of the management of the resource that constitute the human activities most likely to enable successful achievement of the goals of the first two principles: the management system that is the institutional structure for management of the fishery, and the management of operational activities that are conducted in the process of exploiting a particular fishery, that is management of fishing activities.

5.2. Strengths and Weaknesses of MSC: the scope of MSC standards to protect sea turtles

5.2.1. The common objectives of the MSC certification standards and the TED requirements

The MSC and its fisheries certification standard (Principle and Criteria) requires that fishing methods used by fisheries are appropriate to the best available technology. For instance, the use of TEDs, that has been required in the United States since 1996, is required by the MSC with its fisheries certification and standards This is a justification that international certification program that failed under Section 609 and that was criticized as against WTO rules could be implemented through an international organization such as the Marine Stewardship Council. The MSC within its fisheries certification standard (Principles and Criteria) requires that the fishing methods utilized by fisheries minimize by-catch[197]. Commercial marine fisheries in the US alone toss away up

[197]Fishing nets are not always selective: some scoop up everything in their paths – the target catch, s well as many non-target species (by-catch). Unwanted or undersized animals culled from the catch are discarded – thrown back into the sea, dead or dying.

to 20 billion pounds of by-catch each year – twice the commercial and recreational catch combined[198].

5.2.2. Integrating MSC standards and TED requirements: Examples of MSC shrimp certification

This subsection defines and justifies that the UN FAO andMSC are suitable to develop and implement ecolabelling standards such as the TED requirement. There are several components of the institutional aspects of ecolabelling processes[199]: scope of the certification process, cost of certification, standards for accreditation of the certifier, procedure to ensurechain of custody and a standard for the certification process[200]. Few of the components will be discussed in this section about the integration of MSC standards with TED requirements. The important point here is the definition of the scope of the certification, such as what to be certified, determine if the production sector is the focus (fishery or farm), or if the certification process includes the processing sector as well. For instance, the procedure ensuring chain of custody is similarly important both to the MSC standards and TED requirement.

5.1.3. Whether MSC is entitled to implement the FAO Code of Conduct for Responsible Fisheries

The fact that MSC is not only a private non-governmental organization but also a voluntary mechanism, are the obstacle to entitle it as the FAO Code of conduct implementation instrument. Despite that fact, MSC is up to now the only entity that got the blessings of FAO and can provide ecolabelling process

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[198] Web site documentation : www.msc.org
[199] Wessells *et al.*, Product Certification and ecolabelling for Fisheries Sustainability, FAO Technical Papers-T422, 2001
[200] -Id-

worldwide that has been implementing the FAO Code of Conduct for Responsible Fisheries. Steven Hedlund states in his article[201] that

> "The MSC recent success is also due to the growing numbers of seafood buyers incorporating sustainability into their purchasing criteria. Merely a trend in the late 1990's when the MSC was conceived, sustainability is now a full-blown movement within the seafood industry. When seafood buyers think green, the MSC is an obvious choice because it offers the only program in the world that's fully consistent with the United Nations food and Agricultural Organization's seafood ecolabelling guidelines, a recognition it attained in September [2006]". Peter Redmond, VP of Wal-Mart Seafood Division said: "MSC is truly the only worldwide program that addresses the needs of our sustainable seafood platform. The MSC is recommended by all sorts of parties, including the WWF, Greenpeace, Environmental Defense, and seafood suppliers"..."Therefore we know the program is well accepted. The bottom line is that there are no other organization out there that offer this sort of program at this time."

International NGOs have strong influence on the shaping of the regulatory framework of trade in fishery products[202]and other NGOs lobby the WTO and UN agencies to raise the profile of the environment, sustainable development and food safety in their trade agendas[203]. MSC allows its sustainability certification to those fisheries achieving high environmental and social objectives in compliance with international, national and local legislation[204]. MSC certification is managed and operated in a responsible manner, in conformity with local, national and international laws and regulations.[205]. As of January 2007, 22 Fisheries around the world have been independently assessed and certified as meeting the MSC standard, and there are nearly 500 seafood products sold by retailers in 25 countries around the world[206].

The point is to demonstrate that despite the fact thatan international organization such as MSC is not a governmental body, its mission is to develop a

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[201] Hedlund (S), MSC Reaches Tipping Point, Seafood Business Top Story, January 2007
[202] Other NGOs include WWF, Green Peace, Friends of the Earth-International, Consumers International
[203] The Regulatory Framework Governing International Trade in Fishery Products
[204] www.globefish.org/presentations/rulesandregs
[205] www.msc.org (fisheries)
[206] Wilkipedia, The Free Encyclopedia

certification standard for sustainable and well-managed fisheries that comply and are in harmony with national and international regulations. MSC certification standards can be an intermediary system that relates and harmonizes international environmental standards and international trade regulations

Section 6. Toward a mandatory ecolabelling: Integrating the TED Requirements with the FAO Code of Conduct.

This section justifies the option for mandatory ecolabelling as opposed to voluntary and market-driven ecolabelling. One reality nobody can deny is the impending danger caused by the global warming. Indicators of the climate change already occur at the moment. Over-fishing and disturbance of the marine ecosystem play a major role and are interrelated to the global warming. This is a reason to develop mandatory ecolabelling based on the **precautionary principle** and not only market-driven.

As mentioned earlier, mandatory ecolabelling is government-backed and could act as a trade restriction for foreign producers. Non-binding international instruments such as the FAO Code of Conduct, were once signed and ratified by countries members becomes legally binding. Individual countries are recommended to develop national legislations and regulations to implement these international instruments. Then the non-binding instrument becomes binding laws that are enforced in the particular country. Through FAO IPOAs, countries can develop and enact legislations providing ecolabelling. Once the laws are officially enacted and enforceable within the country, the ecolabelling becomes mandatory. This is the case of the US TED requirement when it is converted into international ecolabel for sea turtles protection. The "TED certificate" is a mandatory ecolabel, as Section 609 contains sanctions such as

import rejection if the shrimp export country fails to comply with the TED requirements. The same principle is recommended to be in a form of regulation implementing the FAO Code of Conduct. At this time, the IPOA-Sea Turtles does not exist yet. Thus, the national regulations would implement only the FAO Code of Conduct according to its implementation Guidelines. Therefore, the competent international authority to implement ecolabelling standards wouldeither be the MSC or the FishCode. Based on the precautionary principle and the FAO Code of Conduct for Responsible Fisheries, both MSC and FishCode would be the appropriate authorities to implement the TED requirement on the global level, to protect sea turtles. The MSC is entitled under the FAO Code of Conduct to set up ecolabelling standards. However, the fact that MSC is a market-driven mechanism and has a limitation as a voluntary mechanism makes its ability to implement the FAO Code of Conduct questionable. Both options are still open.

CHAPTER IV: TOWARD SUSTAINABLE FISHERIES MANAGEMENT AND CONSERVATION OF SEA TURTLES: RECONCILING NATIONAL LAWS WITH INTERNATIONAL STANDARDS

Section 1: Introduction

Sustainable Development is defined as the "development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two concepts: the concept of 'need', in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs"[207]. It is worth coming back to that definitionto remind that the objective of this whole work is the importance of maintaining the balance between resources use and resources protection while considering both environmental values and the economic needs, particularly the needs of the world's poor. This particular chapter will demonstrate the scope of labeling as a means to assure an equitable sharing of the benefits from natural resources products.

The effort toward sustainable fisheries management and conservation of sea turtles needs the contribution of all levels of stakeholders, including but not limited to governments, large scale fishing industries, small scale fisheries or traditional fisheries, marine conservation organizations, and coastal local communities.

The FAO Code of conduct for sustainable fisheries sets out principles and international standards of behavior for responsible practices with a view to ensuring the effective conservation, management and development of living aquatic resources, with due respect for the ecosystem and biodiversity. The

[207] Brundtland Commission, 1987 , www.unisdr.org/eng/library/lib-terminology-eng%20home.htm

Code recognizes the nutritional, economic, social, environmental and cultural importance of fisheries and the interests of all those concerned with the fishery sector. It takes into account the biological characteristics of the resources and their environment and the interests of consumers and other users. States and all those involved in fisheries are encouraged to apply the Code and give effect to it. The Compliance Agreement[208] is an internal component of the Code.

This chapter justifies how the TED requirements and MSC principles integration would meet the sustainable management of fisheries and protection of sea turtles.

Section 2: Domestic implementation of the FAOCode of Conduct, FishCode and related IPOAs: the Case of Madagascar

Madagascar accepted the FAO Compliance Agreement on October 26, 1994 and also ratified the FAO Code of Conduct.Two years before ratifying the FAO Code of Conduct, Madagascar already enacted its Fisheries and Aquaculture Ordinance providing sustainable fisheries In 1997, the Law providing national regime of standardization and certification of productswas also enacted. This can be a justification that Madagascar already has something in place to implement FAO ecolabelling program.

2.1. The 1993 Ordinance Regulating the Fisheries and Aquaculture

[208] The 1993 Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas

Any fisheries activities in Madagascarare governed by the Ordinance enacted in 1993.[209] Its objective is to regulate the different types of fishing activities, the fisheries management, the conditions and requirementsof fishing activities within the jurisdiction of Madagascar, the legal regime of fishery and aquaculture, the security measures related with fishing activities and aquaculture, and the penalty measures.

Based on the Malagasy 1993 Ordinance, the FAO Codeof Conduct and the MSC standards falls under the Fisheries Management component. Based on the 1993 Ordinance and the principles of FAO Code of Conduct, Madagascar recognizes the importance of a long term sustainable use of fisheries resources. The 1993 Ordinance[210] provides that the Minister of the Ministry of Fisheries prepares and updates, in collaboration with other Ministers involved, the Fisheries Management Plans (FMP) and the conservation of stocks. The management plan should: (a) analyze the data and establish an exploitation status of fisheries plan as well as the socio-economic impact related to it[211]; (b) define the objectives and fisheries management priorities and the conservation of stocks; (c) specify measures to regulate the program of fishingpermit issuing, and the measures regarding the limitation of fishing operation according to the fishing zones, species, the vessels and the period.

In Madagascar, the MSC certification standard has been introduced through the program WWF Madagascar in theyear 2000, as WWF is the main driving force of the MSC promotion.[212] In addition to the 1993 Ordinance,

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[209] Ordonnance 93-022 du 4 Mai 1993 portant réglementation de la pêche et de l'aquaculture
[210] *Supra* note 208 Titre II Article 6 (1)(2)
[211] *Supra* note 208 Titre II Article 6 (2)(a)

fisheries certification is implemented through a specific certification law that was enacted in the same year as the creation of the Marine Stewardship Council.

2.2. The Law 97 024 of 08/14/97 providing the national regime of standardization and certification of products, goods and services

Since 1997, Madagascar has enacted a law providinga national regime of standardization and certification of products, goods and services[213]. Article 3 of the 1997 Law provides that the Ministry of Commerce is responsible of the coherence of products standardization and policy. The Ministry of Commerce represents the Malagasy interests in view of the international policyof standardization. Article 7 of the 1997 Law provides that "an approved national standard can be made obligatory and implemented by decree, following the Ministry of Commerce Minister report, and if need be, the reports of the other Ministers involved, once it affects the public order, the protection of health and the life of humans and animal, the environment preservation, the protection of national patrimony having an artistic, cultural or historic value, or imperative demands on tax control efficiency, the loyalty of commercial transactions, and the consumers protection."

Under article 7 of the 1997 Law, an implementation decree would be enacted by the Government, represented by theMinistry of Commerce. The proposed implementation decree for eco-certification of seafood in consistency with MSC standards would involve both the Department of Trade and the Department of Fisheries. The Ordinance of 1993 and the Certification Law of 1997 both could be relevant legal frameworks that could facilitate the implementation of the FAO ecolabelling program.

[213] Loi 97-024 du 14 Août 1997 portant Regime National de la Normalization et de la Certification des Produits , Biens et Services (Journal Officiel n° 2456 du 29.9.97 p.1986)

2.3. The 2003-2007 Fisheries and Aquaculture Master Plan

The main objective of the *"Global Plan for Fisheries Development and Marine Aquaculture for the period of 2003-2007*[214] *(Master Plan)"* is to increase the receipts of exportation. There are three specific objectives, notably the increase of the exportation receipts; the satisfaction of the food security; and the improvement of income and the livelihood of fishermen. The Master Plan designs the strategies and action plans for the development of the production and exporting services; for the increase of the marine fisheries for the local market; for the availability of basic socio-cultural infrastructures for fishermen; and the management for the sustainable exploitation and the protection of the environment.

In 2003, a workshop was organized to improve the management of shrimp fisheries in Madagascar[215]. The shrimp fishing sector in Madagascar encounters a crisis due to the high "fishing efficiency[216] which provokes a continuous decrease of the size of the catch among which half of the catch comprise shrimps less than 15g weight. Another reason for the crisis is the decreasing of the price of small-sized shrimp on the international market due to the spectacular development of shrimp aquaculture production in South East Asia and Latin America (700.000 tons in 1990, 2.000.000 tons announced for 2004/2005)[217]. Shrimp industry, both fishing and aquaculture constitute the principal source of foreign currency with a production of 15,000 tons for a value of US$130 millions. The situation is then critical as the shrimp fishing industry is decreasing. As well as that, the Government is developing an equitable mechanism to reduce the

[214] "Plan global de développement de la pêche et de l'aquaculture marines, pour la période 2003-2007
[215] La Pêche Crevettière à Madagascar – Programme d'Action, 30 Juin 2003
[216] Effort de pêche
[217] La Pêche Crevettière à Madagascar – Programme d'Action, 30 Juin 2003

fishing efficiency in order to increase the size of catch. Among the recommendations of the GAPCM[218] at the workshop in 2003 was the development of measures intended to protect the marine environment through fisheries ecolabelling or "eco-certification". Another measure recommended is the use of Turtle Excluder Device (TED).[219]

In Madagascar, the use of TED is legally recommended byDecree 2003-1101 of 11/25/2003 modifying certain provisions of Decree 71238 of 05/12/1971, regulating shrimp trawling within the Malagasy territorial sea[220]. The Article 12 (New) provides that it is required for all trawlers operating in the West coast of Madagascar to use BRD (Bycatch Reduction Devices) and TED (Turtles Excluder Devices) in both the West and East Coast of Madagascar[221].

The shrimp industry in Madagascar is controlled by the GAPCM, the Association of Shrimp Fishing and Aquaculture Industries and the motor of French industrial fishing interest in Madagascar. GAPCM plays a major role in backing the Malagasy Government to enact the aforementioned national ecolabelling standard and recommend measures that are in conformity with the FAO Code of Conduct for Responsible Fisheries222. Although there is a great effort to promote sustainable shrimp industry in Madagascar, it is important to consider the fact that GAPCM's initiative focusses more establishing strategies to promote shrimp farming and less on the improvement of the shrimp fishing techniques.

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[218] GAPCM: Groupement d'Aquaculteurs et Producteurs de Crevettes de Madagascar

[219] The recommendation was in 2003 and the TED use started in 2004.

[220] Article 1 du Décret 2003-1101 du 25 Novembre 2003 modifiant certaines disposition du Décret 71238 du 12 Mai 1971, réglementant l'exercice de la pêche par chalutage dans la mer territoriale malgache. Article 12 Nouveau: " ...Pour les chaluts à crevettes opérant sur la côte ouest de Madagascar, la mise en place d'un dispositif d'échappement des poisons d'accompagnement (By-catch Reduction Device ou **BRD**) est obligatoire. Il en est de meme pour le dispositif d'échappement des tortues (**TEDs**), valable aussi bien sur la côte Ouest que sur la côte Est.

[221] Article 1 du Décret 2003-1101 du 25 Novembre 2003 modifiant certaines disposition du Décret 71238 du 12 Mai 1971, réglementant l'exercice de la pêche par chalutage dans la mer territoriale malgache.

[222] Conclusions et Recommandations de la Conférence Internationale sur la Crevêtticulture Responsable, Antananarivo , le 3,4 et 5 Décembre 2002.

The TED requirement applies only to shrimp fishing practices and not to shrimp farming. In Madagascar, most of the shrimp farming operations are located on the west coast. There is almost no farming on the east coast because of the difference on the capacity of the continental shelf. Most of the wild shrimp fishing occur on the east coast and a majority of it is located in the bay of Antongil, the largest bay in Madagascar, located in the north-eastern part of the country. Most of the shrimp fishing activities are practiced within the Antongil Bay where sea turtles are also affected by the shrimp fishing practices in the bay. The implementation of the TED/MSC ecolabelling requirement would occur mostly in the east part of Madagascar.

In Madagascar, the industrial shrimp fishery is the subject of a licensing system and zoning plan established in 2000. Additionally, a project has been proposed by GAPCM to establish special management zones in order to reduce conflict with traditional shrimp fishing. Certain elements of the industry have been proactive in the installation of by-catch reduction devices and attempting to resolve conflict with traditional fishing interests. Generally, however, the problems of excessive by-catch, incidental capture of endangered species (turtles) and conflict with small scale fishers remain to be resolved[223].

In regard to the implementation of the FAO Code of Conduct in Madagascar and the promotion of regional co-operation on fisheries, Fisheries surveillance in Madagascar is undertaken by the Centre de Surveillance des Pêches (CSP) attached to the Secretariat of State for Fisheries and Aquatic Resources and officially created in 1999. CSP activities are supported by the European Union

[223] Cooke (A), *supra* note 183

(EU) under terms of the fisheries co-operation agreements between the EU, Madagascar and the COI (Commission of Indian Ocean).

> The founding mandate of the CSP was the control and surveillance of the entire waters and territory of Madagascar, including the 1.2 million km2 EEZ as well as continental fisheries (560,000 km2). Strategies to address this immense challenge have evolved in accordance with the resources available. CSP's priority has been to focus on the control of illegal fishing and marine fisheries surveillance. A particular concern has been to protect the interests of licensed fishing operators by arresting operators who have not paid for any licence.The main activities of the CSP are monitoring compliance with fishing licenses, satellite tracking of licensed vessels, dockside checking of fishing gear and patrolling (air & sea). Arrests are effected with the assistance of the Gendarmerie. Patrolling is carried out using the Centre's own rehabilitated vessel (*Andry*), four (4) fast intervention craft and hired civilian aircraft (using CSP's own camera). Occasional joint patrolling missions are undertaken with the Forces Aeronavales under the terms of a co-operation agreement between SEPRH and the Ministry of Defence. 4/4 vehicles and motorcycles are used for terrestrial operations[224].

Section 3: The social dimensions of ecolabeling requirement

This section evaluates the domestic effectiveness of international legal frameworks to protect sea turtles, using the example of Madagascar. The purpose of the study is to investigate the impact as well as the integration of conservation measures to littoral communities traditional use of sea turtles as subsistence. It is important to study the national/local implementation of the 1992 Biodiversity Convention. The reason is because this is not only about protecting sea turtles from destructive fisheries practices, but also promoting the sustainable use and access of local resources users to these resources as the 1992 Biodiversity convention attributes such use rights to local communities if the practice is proven not to harm the ecosystem.

3.1. Towards recognition of traditional fishing communities rights and needs as an important component of sustainable fisheries management

The question is why protect sea turtles, how it is important to human life and what is the link between human lfe and sea turtles protection. Beyond the

[224] - Id-

environmental aspect of labeling, it is important to recognize and consider the social aspects as part of certification criteria. Among the reasons is that traditional fisheries are an important component of sustainable fisheries management. Traditional fishing communities are major users of the littoral and have legally attributed rights of access to marine resources. The point here is that the labeling requirement, especially in developing countries through MSC and TED integration, should include social criteria. For instance shrimp trawlers that are fishing in the coast of Madagascar should respect the needs of the local communities and consider human rights. This section gives moreof an illustration of the recommendation here and involves the case of the conflicts of interest between industrial and traditional fishing sectors in Madagascar. "Responsible fisheries" will remain just a theory without attributing part of the responsibility to the local fishermen. Both the1992 Biodiversity Convention and the 1972 Stockholm Declaration on Human and Environment provide consideration of that fact.

3.1.1. Evolution of the shrimp trawling regulation and the issue of two-mile limit fishing zone

In Madagascar, fisheries are important for nutrition, poverty alleviation, rural incomes, employment, the balance of payments and hard currency earnings. Development of small-scale marine fisheries is a component of Madagascar's poverty reduction strategy[225].

This specific case will discuss the Antongil Bay, the largest bay in Madagascar, located in the northeastern part of the country. The issue discussed

[225] Cooke (A), *supra* note 183

here is the relevant regulation controlling the shrimp trawling near the coast. Different points of view occur regarding the issue of shrimp trawling within the 2-miles limit fishing zone. Even lawyers have different interpretations regarding the legal basis of the nature of shrimp fishing and the limitation within the 2 miles zone of access.

Fishing regulations in Madagascar are subject to evolution and changes following the circumstances and the government's policy. The major issue that has been raised is whether industrial fishing vessels are authorized to operate within the 2- mile limit zone.

Under Madagascar law, the marine zone within 2 miles of the shore is reserved for traditional fishing. However, there are raging disputes about the enforceability of this law, as explained in a recent article:

> " In Madagascar, the issue of the two-mile zone has become highly controversial. The first official references to the zone would seem to come from a colonial decree of June 5 1922 which stipulates (Article 10) that...the use of...trawls for fishing all fish species is only authorized at a distance of two (nautical) miles from the coast....". The industrial shrimp trawlers assert that the legal basis of this is questionable, as a 1971 decree overturns this ruling by stating that"...by derogation to Article 10 of the Decree of 1922, trawler fishing licenses may authorize their holders to fish for prawns in the two mile zone"... They also argue that fishing is not profitable unless they are allowed to fish in this zone. Furthermore, they dispute the legal definition of coast, and question where the baselines should be drawn from which the two miles should be measured.[226]"

On the other hand, an opposing legal point of view states that based on the Decree 63 131 of 02/27/63 delineating the limit of Madagascar's territorial sea,

[226] O'Riordan, *Two Controversial Miles*, SAMUDRA, August 2001.

that the "coast" is defined from the straight baseline in caseof indentation and it is defined by the low water line if the coast is rectilinear(Randriamalala Rahamefy, 2002). In consequence fishing vessels fishing within the 2 miles from the straight baseline without the authorization of the Minister of Fisheries, indicated in their permit or in the agreement, are in violation of fisheries legislation and therefore are subjects to sanctions[227].

In regard to the fishing rights, Article 13 al 2 of the Ordinance 1993 Ordinance regulating Fisheries and Aquaculture, international agreements have to specify the number and characteristics of vessels of which operations are authorized both within the fishing zone and to the fishing type as well as the species. According to the 1994 decree[228], the holding of a fishing permit does not authorize vessels to fish within the 2 miles limit zone. In order to do it, there must be an authorization and the authorization must appear in the permit (for Malagasy vessels) and in the agreement (for foreign vessels). In this case, the Minister of Fishery Department has a discretionary authority to issue and refuse to issue permits based on national interest.[229] Claims against these legal provisions occur from most of industrial shrimp fishing operators who still base their arguments under the subject of the original interdiction of 1922 decree[230]that "the interdiction of fishing access in the 2 miles zone is for fish species but not for

[227] Based on the present decree, the word "coast" is synonym of straight baseline if the coast is indented. To measure the exclusive economic zone as well the straight baseline method is used (Article 1 of Ordinance 85013 of 04/16/85). In any case the low water line can not be used to measure the wide of the sea [2 miles, 12 miles, 200 miles] when the coast is indented or whe there is fringed island(s) In this case the straight base line method must apply (Randriamalala (R), 2002). Looking at the Madagascar's map, only the points from Taolagnaro through Foulpointe (see Madagascar Map) is rectilinears and the straight baseline is confused with the low water line.

[228] Article 16 al 3 and article 24

[229] Randriamalala Rahamefy, 2002

[230] Decree of 1922 was already abrogated by the later decrees but still used as reference in some cases

crustacean"[231]. It is also one of industrial shrimp fishing operators' arguments that shrimp industry is a key sector for the economy of Madagascar.

3.1.2. Environmental and social impacts of shrimp trawling and traditional fishing in the bay

Different actors are involved in the Antongil Bay and have access to its coastal and marine resources. The diminution of fisheries resources in the bay is caused by the use of the beach seine nets by traditional fishermen and longline fishing nets used by industrial fishing vessels, the primary users of the bay.

The fishing practices of both traditional and industrial fishermen create impacts on the coastal and marine environment within and around the bay. However, it is clear that the impact of traditional fisheries practice in the bay is less serious than the impact of industrial fishing. The passage of the industrial vessels using drift nets is a threat to not only the fisheries resources in the bay but also the habitats and the marine ecosystem in general.

Shrimp trawling in the bay is a threat to sharks and turtles and may damage the ecosystem through the dragging of nets along the seabed[232]. Shrimp trawlers are usually interested solely in shrimp products. That raises the level of by-catch and unwanted fish that are often either jettisoned at sea, a practice that itself causes marine pollution in and around the bay.

Another environmental problem is the frequency with which the shrimp trawlers fish within the bay, the main cause of resources scarcity. Traditional fishermen around the Bay have claimed[233] that the almost weekly trawler visits are harvesting all of the fish resources, including fishes. There is not even

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[231] article 10 of 1922 decree
[232] Cooke (A), *supra* note 183
[233] During the Survey preceding the 2002 pre-workshop

enough time for small fish to grow before the next trawler comes. Consequently, there are no more fish left after the passage of trawlers. Such practices reduce significantly the chance for local communities to have access to the same fishery resources[234]. The impact of the industrial shrimp fishing is felt in the local market, where it is hard to buy shrimp; all have been taken by the trawlers[235].

The objectives of integrated fisheries management and conservation of sea turtles is not evident without consideration of all stakeholders, from large scale shrimp fishing to small scale shrimp fishing. Therefore, the social criteria should be added to the principle of eco-labeling and no shrimp fisheries would obtain certification without respecting the socio-economic interests of the littoral communities.

3.2. Provisions of the 1992 Convention on Biological Diversity and 1972 Stockholm Declaration supporting the equitable sharing of natural resources

The Stockholm Declaration on the Human Environment in 1972 provides answers to the questions of equitable sharing of natural resources. Man has the fundamental rights to adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being. Man is responsible to protect and improve the environment for present and future generations[236]. The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems must be safeguarded for the benefit of present and future generations through careful planning or

[234] Rakotoson (L), Report on Pre-Workshop with Traditional Fishermen, Maroantsetra November 2002
[235] A Malagasy traditional saying says: "*mangetaheta ambony lakana*", means being thirsty on the canoe.
[236] 1972 Stockholm Declaration, *supra* note 5 at Principle 1

management as appropriate[237]. The capacity of the earth to produce vital renewable resources must be maintained and, wherever practicable, restored or improved[238].

In its preamble, the Convention on Biological Diversity states the recognition of "the close and traditional dependence of many indigenous and local communities embodying the traditional lifestyles on biological resources, and the desirability of sharing equitably benefits arising from the use of traditional knowledge, and the sustainable use of the biodiversity components[239]. In some countries, coastal communities harvest sea turtles and eggs mostly for subsistence. For instance, the capture of turtles in South East Madagascar is largely for local consumption or local trade[240]. The local consumption of biological resources for subsistence is provided by the Convention on Biological Diversity under its Article 10 referring to Sustainable Use of Components of Biological Diversity. Each Country part of the Convention shall, as far as possible and appropriate "protect and encourage customary use ofbiological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements"[241].

Sustainable management of sea turtles means here protection of species through conservation activities while meeting the subsistence needs of coastal communities by setting up rules regulating the harvesting period and quantity, for instance allowing coastal communities to harvest sea turtles periodically per

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[237] 1972 Stockholm Declaration, *supra* note 5 at Principle 2
[238] 1972 Stockholm Declaration, *supra* note 5 at Principle 3
[239] 1992 Convention on Biological Diversity, *supra* note 8, Preamble
[240] Gladstone, Andriantahiana, Soafiavy, " Azafady Project Fanomena – Marine Turtle Conservation and Research in Southeast Madagascar, Report on Activities and Findings in the 2001-2002 Nesting Season", Page 31
Of the 19 turtles caught at sea in Etapera (Tolagnaro Madagascar) between November 15 and February 27th, 13.5 were shared between the fishermen and 5.5 were sold in the village.
[241] *Supra* note 8 at Article 10 (C)

quota per family. The harvest of sea turtles for commercial purpose is usually in conflict with littoral communities harvesting sea turtles for subsistence.Another concern that needs to be addressed is the domestic trade of sea turtles and eggs harvesting for subsistence need of local littoral communities. The Biodiversity Convention specifically protects customary uses of biological resources in accordance with traditional cultural practices, and provides that they are compatible with conservation and sustainable use principle[242]. Despite that fact, there is still a lack of enforcement mechanism on the national level to implement the Biodiversity Convention to codify and formalize the recognition of local community rights when developing a mechanism to protect sea turtles.

Section 4: Integrating TED requirements and MSC principles to assure domestic implementation of FAO ecolabelling program

When voluntary ecolabelling standards such as the FAO Code of Conduct are implemented through domestic laws, they become mandatory and enforceable. Given the example of Madagascar and other countries, the TED requirements are enacted under the provisions of Governmental Decree, which gives it an enforcement authority. Seafood companies in order to get certified on the international market have to respect the steps including the chain of custody. The MSC Chain of Custody is comparable to the TED requirement guidelines about certification process. The first subsection will define the relevance of the FAO Guidelines for the Ecolabelling of Fish Products from Marine Capture Fisheries and its implementation mechanisms. The second subsection will discuss the common requirement of the MSC chain of custody and the US DOS

[242] Wold, *supra* note 15

Certification Process. The third subsection will analyze the authorities of the MSC accredited certifiers compared to the UD DOS officials in charge of the TED certification.

4.1. The relevance of FAO Guidelines for the Ecolabelling of Fish Products from Marine Capture Fisheries[243] and its implementation mechanisms

The integration of MSC principles and the TED requirement would be conducted under the 2005 FAO Guidelines for Ecolabelling of Fish Products from Marine Capture Fisheries. The guidelines are applicable to ecolabelling schemes that are designed to certify and promote labels for products from well-managed marine capture fisheries and focus on issues related to the sustainable use of fisheries resources.

Despite the fact that FAO ecolabelling is voluntary, the principles that should apply according to the 2005 Guidelines reflect a mandatory character that support the option for integrating the MSC principles and TED requirements to form an enforceable mechanism to be implemented on theglobal level.

> Principle 2.1 provides that ecolabelling for marine capture fisheries should be consistent with the 1982 United Nations Convention on the Law of the Sea and the Agreement for the implementation of its provisions relating to the Conservationa and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, the FAO Code of Conduct for Responsible Fisheries and the World Trade Organization (WTO) rules and other relevant international instruments.

The International instruments listed above are playing a major role in promoting implementation of ecolabelling standards. However, the reserve in the earlier chapter of this work still remain at least about the straddling stock. Despite the good purpose of the Convention on Straddling Stock,the issue here is that the 1982 Convention does not give a clear and complete definition of "Stock" and

[243] The FAO Guidelines was adopted by the twenty-sixth session of the Committee on Fisheries (COFI), Rome, 7-11 March 2005

the term historically has been used to define fisheries. It is unclear whether the term" stock" refers to sea turtles. The term "stock" still should beclarified whether it includes the species of sea turtles. This is a justification that international instruments such as soft laws, are not enough to protect sea turtles, without implementation mechanisms such as mandatory ecolabelling inspired from the US TED requirements.

4.2. Common requirement of MSC Chain of Custody and the US DOS Certification Process

Chain of Custody is the traceability of the product certificate from capture to process to retail. Chain of custody assures that certified seafood remain separated from the uncertified products. It is the most important part of the MSC approach. Chain of cusdtody certificates provide the confirmation that MSC logo can only be used after a separate independent evaluation confirms that the seafood product originated from a fishery certified to the MSC standard[244].
In regard to the TED requirement, the US DOS assures that shrimp products coming to the United States ports are certified. Section 609(b)(2)(C) authorizes the Department of State to certify a harvesting nation if the particular fishing environment of the harvesting nation does not pose a threat of incidental taking of sea turtles in the course of commercial shrimp trawl harvesting[245].

Section 609(b)(2)(A) and (B)of the 1999 Guidelines provides Additional Considerations regarding the form of regulatory program implementing the TED

[244] WWF, Unilever, Marine Stewardship Council, DVD 2000
[245] US Department of State 1999 Revised Guidelines for the Implementation of Section 609 of Public Law 101-162 Relating to the Protection of Sea Turtles in Shrimp Trawl Fishing Operations

requirement in the shrimp exporting country. In addition to the authority of the US DOS official vested by Section 609, TED certification may also be in the form of regulations promulgated by the government of the harvesting nation and having the force of law. This is the case of the Madagascar 2004 requirement for the use of TED and BRD for all fishing vessels. If the legal system and industry structure of the harvesting nation permit voluntary arrangements between government and the fishing industry, such an arrangement may be acceptable so long as there is a governmental mechanism to monitor compliance with the arrangement and to impose penalties for non-compliance, and reliable confirmation that the fishing industry is complying with the arrangement.

4.3. The Challenge on integrating TED requirements and MSC principles

This is an analysis on the reality within the integration of the MSC principle and the TED requirements. Given the difference of the status of MSC as a private organization and the Department of State as Government body it is important here to understand the players in this field. Depending on the interest of the players, the integration may raise an issue and might not be evident.

It is worth reminding that the main recommandation in my work is to use as a model the TED requirement on the global level as it is an efficient tool to protect sea turtles and assure sustainable fisheries management. Consequently, to avoid the extraterritorial application of US law in foreign countries (basis of the complaint of few shrimp exporting countries to WTO), my suggestion is to choose one international organization to assure the implementation of the ecolabelling standard. MSC was chosen because it is implementing an official international instrument, the FAO Code of Conduct for Responsible Fisheries. In that case, if

MSC would be suitable to implement TED requirement worldwide, it has to become a mandatory ecolabelling, not a voluntary ecolabelling. The mandatory ecolabelling, which I recommend through this work is based on the precautionary principle.

During my interview with the US Department of State Officials (USDOS), my question was whether the USDOS welcomes the idea of having MSC conduct the certification process related to TED requirement in foreign countries, instead of DOS Officials; what is the DOS point of view on MSC ecolabelling and TED requirement for shrimp import. The example of the biggest US retailer such as Wal-Mart was used. The question was if Wal-Mart imports shrimp harvested from the wild caught from any country, would Wal-Mart require both MSC label on these products and/or at the same time meet the TED requirement required by the US DOS. Another question is about the measures the USDOS would take if a shrimp fisheries in destination to the US has been MSC certified but not TED certified. In response, the US DOS Official gave his personal opinion that "if a shrimp fishery were certified by MSC, it seems that such a certification would have no direct impact on Section 609 certification, nor would be in a position to comment on MSC certification in the event that the fishery was not required to use TEDs[246]". Looking at the provisions of Section 609, "shrimp or products from shrimp harvested with commercial fishing technology that may adversely affect certain species of sea turtles protected under U.S. law and regulations may not be imported into the United States". Nothing says here thattheUS DOS would make any exception that the use of TEDs is not required for MSC certified shrimp fisheries exported to the US. That fact is not considered here. However it makes

[246] Communication with David Hogan, OES US Department of State, February 2007

more sense if the fact that US DOS not having any import condition on MSC would be interpreted as an equivalence "a regulatory program governing the incidental taking of such sea turtles in the course of such harvesting that is comparable to that of the United States" as provided by the 1999 Department of States Guidelines for the implementation of Section 609. I other words, if the US DOS does not have import conditions or criteria for MSC certification because MSC certification would be considered as a regulatory program comparable to the that of the United States, then the statement ofthe US DOS official is founded. Otherwise, this situation is not consistent with the provisions of Section 609, therefore inconsistent.

In regard to the suggestion and option for MSC to implement the TED requirement on the global level, the US DOS Official believes that "MSC certification could not replace DOS certification unless the statute that requires DOS certification would need to be changed. In addition, it is unclear what technical standards would be used in MSC certification for TEDs use. The underlying standard in the current Section 609 program is use of proven TEDs technology and full comparability to the US program both in terms of technical aspects as well as enforcement[247]." In regard to whether MSC certification could not replace TED certification unless there is a change on the status that requires DOS , the aim of this research is not to replace DOS with MSC. Instead the goal is to come up with a globally accepted international organization that will implement an ecolabelling program through the FAO Code of Conduct. The main idea is to borrow the US TED requirements standard and use it as a basis of the future international instrument to implement the FAO Code of conduct for

[247] Communication with David Hogan, OES US Department of State, February 2007

responsible fisheries. The reason for integrating MSC requirementswith TED requirements is exactly because the TED requirement has the most strict standards that could be applicable on the international level with proven TEDs technology and full comparability to the US program both in terms of the technical aspects as well as enforcement. Another comment from the US DOS Official dealt with the nature of TED as ecolabelling program. He personally does not see the Section 609 program as an ecolabelling program because it does not use a label, and Section 609 status is not required to be represented on the documentation used to market shrimp products imported to the United States[248]. It is true that Section 609 provides the issuance of certificates to shrimp fisheries that met TED requirement, and not interpreted actually as alabel. Indeed, Section 609 does not spell out that the TED requirement is an ecolabelling program. However, it is an eco-certification instead. In this case ecolabelling and ecocertification would contain the same principle and the common goal here is to certify that the shrimp products were harvested in a manner that did not harm the marine ecosystem, meaning not presenting harm to the sea turtles, and harvested in a well managed marine ecosystem. The objective of this research is to provide a model using principles that will be feasible on the global level, regardless of whether to use labels or just certificates.

[248] Communication with David Hogan, OES US Department of State, February 2007

CHAPTER V:

GENERAL CONCLUSION AND RECOMMENDATIONS

Section 1: Whether seafood eco-certification can save the sea turtles

Before addressing the question whether seafood ecolabelling can save the sea turtles, it is worth clarifying the status of US Department of State's TED requirements as an ecolabelling program. Indeed, Section 609 does not spell out the word labelling, however its provision clarifies the aspect of certification. Section 609 provides that "shrimp or products from shrimp harvested with commercial fishing technology that may adversely affect certain species of sea turtles protected under U.S. law and regulations may not be imported into the United States". The 1999 Department of State Guidelines for the implementation of Section 609 provides that "the import prohibition does not apply if government of the harvesting nation has provided 'documentary evidence' of the adoption of a regulatory program governing the incidental taking of such sea turtles in the course of such harvesting that is comparable to that of the United States". The documentary evidence is a certificate that the shrimp products were harvested in a manner that did not harm sea turtles by using nets with TED.

It is important to recognize that although the certification process does not necessarily involve ecolabelling, ecolabelling is part of the certification process. What is important is that shrimp products are certified. There is already a common global understanding of the need for improved fisheries management and conservation of marine biodiversity to attend sustainability. Either called ecolabelling or ecocertification, the use of nets that are equipped with TED was

proven to reduce sea turtles mortality by 97%[249], therefore, the process indeed can save the sea turtles.

Section 2: Assessing international legal instruments that are potentials while not really effective to protect seaturtles

This section assesses potential international instruments that could influence the protection of sea turtles while not guaranteeing specific measures addressing the issue. This is a justification why ecolabelling is the answer and the instrument to protect sea turtles species and reduce mortality.

2.1. The United Nations Convention on the Law of the Sea (UNCLOS or The 1982 "Law of the Sea Convention")

UNCLOS fishing resources are mostly considered property of the State except when in the international waters where they are everyone's property. The reason regimes on sea turtles conservation are so difficult to implement lies in the migratory nature of sea turtles, making them State property when in national waters and *res nullius* when in high seas. It has been stated earlier that the doctrine of permanent sovereignty over natural resourcesdominates the use and conservation of sea turtles on land and within a coastal State's territorial sea and EEZ. All maritime issues are interrelated and must be treated globally. According to the UNCLOS, the doctrine of permanent sovereignty over natural resources dominates the use and conservation of sea turtles on land and within a coastal State's territorial sea and EEZ. The doctrine's ability to protect and reduce sea turtles mortality remains questionable. For example, a State is responsible for damage caused in another State but the damage must be

[249] Kibel, , *supra* note 125 at p, 119

significant[250]. It means that based on the doctrine of permanent sovereignty over natural resources, nothing can force a State to protect the species or habitat of sea turtles unless it damages significantly another State. It is not guaranteed that the increase in sea turtles mortality is considered as a significant damage. Despite the scope of the doctrine, instruments such as international treaties and soft laws are in many cases important to restrictions on exploitation of sea turtles in international waters or within one's own territory. Either voluntary or mandatory, these agreements or treaties do not change the international law principle of State sovereignty over resources or over norms of customary international law[251] . However, the promotion of the TED certification process through FAO Code of Conduct for Responsible Fisheries for instance, is a better way to reinforce States responsibility over the protection of sea turtles. In other words, certification process formalizes this voluntary consent of States to restrictions on exploitation of sea turtles and encourages coastal States to manage and exploit sea turtles in a sustainable manner.

2.2. General Principles of International Law

The provisions of the UNCLOS still do not make it clear whether sea turtles species would be classified among straddling stocks or just considered as shared resources. Moreover, the classification of sea turtles as *anadromous* species is still questionable because baby turtles are hatchling from the beach and spend most of their time in the ocean, whereas, *anadromous* species are spawning in the fresh water. Furthermore, sea turtles are not protected under article 66 (2) of the 1982 Law of the Sea Convention regulating *anadromous*

[250] 1982 LOSC, *supra* note 57 at Section II Article 198
[251] De Klemm, *supra* note 20 at 939

stocks as the provision of the article gives more considerations to the fishing stocks than other species such as sea turtles. It is clearly spelled out that "the State of origin may, after consultations with the other States referred to in paragraphs 3 and 4, fishing these stocks, establish total allowable catches for stocks originating in its river"[252]. It is clear that article 66 (2) of the Law of the Sea Convention targets specifically fish stocks.

On the other hand, as sea turtles are migratory species, there is a possible protection through the provisions of article 64 of the Law of the Sea Convention which mandates coastal States and other States whose nationals fish in the region for the highly migratory species listed in Annex I, to cooperate directly or through appropriate international organizations to ensure conservation and promote the objective of optimum utilization of such species throughout the region. All species of sea turtles are endangered and therefore are part of Appendix I of the 1979 Convention of Migratory Species. Despite that possibility, Article 64 specifies fish stocks but does not generalize all migratory species, thus, the need for a special international instrument to develop ecolabelling standards and address protection of sea turtles species.

Despite the fact that General Principles of International Law tend to be more philosophical and to lack the legal authority, some principles such as the Precautionary Principle, play an important role especially when it is even sometimes a basis for the enforcement of certain laws which require that management decisions should be based on sound scientific evidence and on application of the precautionary approach where scientific information is lacking.

[252] 1982 LOSC, *supra* note 57 at Article 66(2)

The mandatory character of ecolabelling is also based on the precautionary approach to reduce sea turtles mortality.

2.3. International Environmental Agreements

The 1979 Convention on the Conservation of Migratory Species of wild animals, the Biodiversity Convention, and the UN FAO Code of Conduct for Responsible Fisheries, as international environmental agreements, have a common factor that they are all non-binding instruments. However, they require each country to enact implementing legislation that make the agreement binding. Some of them are based on relevant rules of international law, such as the FAO Code of Conduct.

Nevertheless, despite the possibility of international environmental agreements to have enforcement character, the languages used to interpret them are not usually mandatory. Instead they are non-binding languages that use words such as "encouraging" or "inviting" the States to undertake some actions, instead of "urging" or "mandating". Moreover, despite the fact that both the 1992 Biodiversity Convention and the 1979 Convention for Protection of Migratory Species acknowledge the need to take action to avoid any migratory species become endangered, there is still a lack ofstricter international agreement that would protect sea turtles or at least reduce sea turtles mortality.

The ideal would be a stricter multilateral environmental agreement (MEA) in place to counterbalance the international trade rules driven by WTO. In that case, the principles of Section 609 would be used as a model of standard that would be applicable worldwide through an internationally recognized institution such as the FAO which is already recognized internationally for its Code of Conduct for Responsible Fisheries.

Also, it is important to recognize the role that international ecolabelling organizations play in bridging the gap between trade and environment implementation policies. For instance, the US TED requirement demonstrated the need to recognize the role of an international organization such as MSC to influence governments and even the international trade authority to comply with the United Nation's FAO Code of Conduct that is recognized by the international community. The criticism of the US Section 609 was not really substantial but rather related to the policy. In addition, in the "Turtle-Shrimp case", the WTO Panel has found and argued that the Section 609 restriction was "primarily aimed at forcing other countries to change their policies, not marine conservation[253]. However, this issue was already clarified by the WTO Panel later on.

Within WTO, there is an environmental section, the Committee on Trade and Environment (CTE), which is making appropriate recommendation on whether any modifications of the provisions of multilateral trading systems are required, not only based on the non-discriminatory system but also based on the relationship between trade measures and the environmental measures in order to promote sustainable development. In sum, if the international trade authority recognizes positively the role of CTE to evaluate equally the trade and environment, then there should be a place to consider the option to adopt the principle of US Section 609 on the global level through the United Nations FAO Code of Conduct for Responsible Fisheries.

[253] 1982 LOSC, supra note 57 at Article 66 (2)

Section 3: Recognizing the FAO Code of Conduct for Responsible Fisheries as the main international institutionto set up eco-labelling standards and developing an IPOA specific to Sea Turtles.

As far as the FAO Code of Conduct for Responsible Fisheries is concerned, the Code includes technical annexes dealing with fisheries operations (including monitoring, fisheries management, indicators of sustainability, and other aspects. While non-binding in character, the Code of Conduct is an influential interpretation of the obligations under UNCLOS and other conventions and has been adopted as a framework for fisheries management by many fishing nations. The fact of including monitoring and indicators of sustainability, for instance, is a positive indicator that the FAO Code of Conduct is an appropriate institution to mandate the TED requirement on the global level as TED certification involves monitoring and inspection of the fishing nets and systems. Furthermore, the Code requires that management decisions should be based on sound scientific evidence and on application of the precautionary approach where scientific information is lacking. "Monitoring, control and surveillance" (MCS) is one element of the FAO Code of Conduct that is an integral component of responsible fisheries management. 'Monitoring' refers to the process of collecting and processing data on fishing activities and the resource. 'Control' refers to the regulation of fishing activities suchas rules about fishing and licensing of vessels. 'Surveillance' refers to the process of checking that the rules are complied with[254]. That fact is again a justification of the choice of FAO Code of Conduct to be the appropriate institution to develop and enforce ecolabelling standards that can protect sea turtles.

[254] Cooke (A), *supra* note 183

Based on the example of Madagascar and Brazil, many countries would already have their own national standards and regulations regarding the fisheries management. The sea food certification is not a new concept for some countries such as Madagascar, given the existing legislations and standards.Madagascar has been already implementing the FAO Code of Conduct for Responsible Fisheries, including through the Monitoring and Control system (MCS) and other sectors. The FAO Code of Conduct for Responsible Fisheries includes technical annexes dealing with fisheries operations including monitoring, control and surveillance (MCS), fisheries management, continental fisheries, indicators of sustainability, aquaculture and other aspects. Since fisheries monitoring and surveillance are part of the FishCode program, this would qualify the FishCode not only to be the implementing instrument for the FAO Code of Conduct but also an umbrella support to non-governmental organizations such as the MSC[255] . One possibility to internationalize the US Section 609 is to integrate the FishCode and the MSC to conduct the TED certification process on the global level.

Therefore, a better policy to maintain the equilibrium between trade and environment would be the recognition of each country's domestic regulations that would help in the implementation of international regulations as well.For ecolabelling, all fisheries should take place within a legal framework embracing any national fisheries legislation and regulations pertinent to fisheries, any multilateral or regional legal arrangements, and the growing body of international laws and agreements[256].When Governments adopt these standards and make

[255] The integration is important if the MSC would remain a voluntary approach and not mandatory, while the FishCode would be consistent with the legal framework in force.
[256] Wessels *et al*, *supra* note 164

compliance compulsory, they become official regulations. If a company requires suppliers to comply with specified standards struck by a national standards organization, this does not constitute a trade barrier. It is a commercial requirement. Where ecolabelling standards are not mandated by the Governments but are applied by commercial entities for the information of consumers, these are voluntary standards and WTO provisions do not apply. When an ecolabel is mandated under government regulation, then it becomes legally binding. As shown in the foregoing, the terms of Article XX of GATT and of the SPS and TBT agreements make ample provision for use of ecolabels[257].

The answer to the question whether ecolabelling can save the over-fished ocean depends on whether each Government adopts these standards and enacts regulations in order to enforce them, or whether it is just a commercial requirement. It is up to each country to implement their national standards to enforce ecolabelling regulations.

In terms of the mechanism to implement the FAO Code of Conduct, this project offered few options giving more consideration to the Marine Stewardship Council, whose credibility to implement the Code of Conduct has been proven globally[258]. In addition to the MSC, there is also an option to implement the Code of Conduct through the IPOAs (International Plan of Actions). Though, the main issue is the lack of consideration of an independent IPOAs specific to Sea Turtles.

In regard to the non-consideration of developing an IPOA Sea Turtles before there was a better compliance of the four other IPOAS (Shark, Capacity, IUU, and Seabirds), the FAO's Committee of Fisheries decision seems not to be

[257] Jones, *supra* note 172
[258] Hedlund (S), *supra* note 200

well founded. The non-compliance of the other IPOAs should not be a reason to underestimate the need to implement a specific IPOA for sea turtles. It is justified by the fact that protecting sea turtles indirectly have a greater contribution to the State's budget as sea turtles are important factors for the sustainability ofshrimp industries in shrimp exporting countries that are involved with the United States, the major shrimp importer country in the world. Therefore, indeed, the development of an IPOA-Sea Turtles is well justified. Moreover, with the recommendation to adopt the principles of Section 609 on the global level , the TED requirement would become an enforcement engine of the IPOASea Turtles.

In regard to the question whether the FAO Code of Conduct for Responsible Fisheries is a soft law political instrument or a hard customary law, the FAO IPOA-Sea Turtle is itself a soft law with hidden teeth[259]. With the TED requirement adopted by countries through legislation implementing the FAO Code of Conduct, the FAO IPOA-Sea Turtles becomes itself a hard law. While IPOAs do not constitute a source of international lawaccording to the article 38 (1)(b) of the Statute of the International Court of Justice, soft law may evolve into hard law. This is especially true when both conduct (the scope of the Plan of Action as a doing element of the practice) and the conviction (the conscience that the Plan of Action is obligatory as a psychological element of the practice) inspires governments to adopt national legislation to enforce the soft law as a hard law.

With respect to another consideration, the FishCode seems the right option as it proves for instance to have an upgrading capability in Monitoring,

[259] Lugten (G), *supra* note 185

Control and Surveillance (MCS), an important part of the FAO Code of Conduct implementation vehicle.

Section 4: Addressing the challenge to Internationalize the TED requirements to reduce sea turtles mortality

It is important to emphasize here that the suggestion to internationalize the TED requirement to reduce sea turtles mortality is one of the few possible options that can be applicable on the global level. There is here aneed to clarify the difference between Harmonization and Comparability or Equivalency. In this project, the option to internationalize the TED requirements to reduce sea turtles mortality does not tend necessarily to a harmonization or conformity of Section 609 worldwide. What is recommended here is not an encouragement of uniformity or harmonization of international law with the US environmental standard, but an international standard adopting the same model as the US standard.

My recommendations are based on the guidelines of the Department of State to implement Section 609, notably the notion of "Comparability". According to the 1999 Revised Guideline "Section 609 do not apply to shrimp or products of shrimp harvested by commercial shrimp trawl vessels using TEDs comparable in effectiveness to those required in the United States, since such harvesting does not adversely affect sea turtle species". Are not subject to Section 609 either the following: " Shrimp harvested exclusively by means that do not involve the retrieval of fishing nets by mechanical devices, such as winches, pulleys, power blocks or other devices providing mechanical advantage, or by vessels using gear that, in accordance with the U.S. program described above,

would not require TEDs; Shrimp harvested in any other manner or under any other circumstances that the Department of State may determine, following consultation with the NMFS, does not pose a threat of the incidental taking of sea turtles"[260].

With the provisions of the DOS 1999 Guidelines, the internationalization of the TED requirement is less of an issue than before when the guideline was revised in consideration of requests from different entities[261]. Section II also described in more specific terms the types of information thatforeign governments may provide and the manner in which the Department will review such information in making determinations under Section 609.Section III of the notice proposed certain changes to the criteria that the Department will use in making certification decisions, with the intent of introducing greater flexibility in considering the

comparability of foreign programs and the U.S. program.This consideration of the comparability of foreign programs and the US program is a justification that the US Department of State is open to any possibilities of adopting the US TED requirement standard on the international level, once the exporting country has a comparable standard for sea turtles conservation.

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[260] US Department of State, *supra* note 134

[261] The Department of State received 11 sets of comments on the Federal Register notice issued March 25, 1999. The Department received 5 sets of comments from governments (or government agencies): Agriculture, Fisheries and Forestry Australia; India; Malaysia; Thailand; and the U.S. Fish and Wildlife Service. The Department also received 6 sets of comments from non-governmental organizations and individuals: A coalition of environmental organizations, including the Caribbean Conservation Corporation, Center for Marine Conservation, Consumers Choice Council, Defenders of Wildlife, Earth Justice Legal Defense Fund, Humane Society of the United States, National Wildlife Federation, Natural Resources Defense Council, Sea Turtle Restoration Project, Sierra Club, World Wildlife Fund; Australian Prawn Promotion Association; Center for Marine Conservation; National Fisheries Institute; Sea Turtle Restoration Project; and J. Frazier, D. PhIL.

This notion of comparability introduces us to the next three sections that describe the existing regional efforts to manage and protect sea turtles. The following regional conventions are both intended to promote the conservation of sea turtles while demonstrating that coastal countries can work together to protect marine life and that the trade and environment policies of each country can be mutually supportive[262].

Section 5: The need to reinforce the existing regional initiatives for sea turtles conservation

5.1. The Inter-American Convention for the Protection and Conservation of Sea Turtles

The Inter-American Convention for the protection and Conservation of Sea Turtles (the IAC) was signed in Caracas Venezuela in 1996. The IAC's objective is to promote the protection, conservation and recovery of sea turtle populations and of the habitats on which they depend, based on the best available scientific evidence, taking into account the environmental, socioeconomic and cultural characteristics of the Parties.

Article IV of the IAC list the appropriate measures that each Party or country would take in accordance with their international law and on the basis of the best available scientific evidence, for the protection, conservation and recovery of sea turtle populations and their habitats. These measures include:

> "The reduction, to the greatest extent practicable, of the incidental capture, retention, harm or mortality of sea turtles in the course of fishing activities, through the appropriate regulation of such activities, as well as the development, improvement and use of appropriate gear, devices or techniques, including the use of turtle excluder devices (TEDs) pursuant to the provisions of Annex III, and the corresponding training, in keeping with the principle of the sustainable use of fisheries resources"[263].

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[262] Declaration of President Clinton when ratifying the Inter-American Convention on the Protection and Conservation of Sea Turtles

[263] 1996 Inter-American Convention on the Protection and Conservation of Sea turtles, Article IV(2)(h)

Based on the terms of the IAC, the convention aimed at substituting the annual US inspections on TED use in Latin America with a more comprehensive turtle conservation agreement. In other words, the IAC contains measures comparable with the US program governing the incidental taking of sea turtles in the course of shrimp harvesting. In fact, the initial intention of the IAC included clauses on turtles habitats protection and domestic species control, which would go much farther than a simple TED certificate process[264].

While the IAC provides strong scientific basis to protect sea turtles, the Convention did not reach its intended breadth, failing to become a tool of international legislation on turtle protection with efficient and sufficient implementation[265]. In fact, the comparability of IAC measures to the US TED requirements remains questionable because the IAC lack the enforcement mechanism. In order to play the role of sea turtles management authority on the regional level, IAC should be able to meet the comparability requirement, in order to avoid extraterritoriality of the Section 609.

According to the environmental lawyer and Vice President of AIDA (Association Inter-American of Environmental Defense)[266],

> "the IAC is an opportunity to create the necessary international cooperation to protect this resource. It will serve as a complement and strengthening of mechanisms of national and international law for the protection of sea turtles and their habitat, and it will allow various countries of the hemisphere to ameliorate their sea turtles administration through technology transfer and a facilitating scientific management".

In regard to the implementation mechanism, the IAC does not dispose a clear legal tool on the regional or international level, but classically rely on the national implementation, which justifies the statement that the IAC fails to

[264] Donnelly, 1995
[265] Jack Frazier, 1997
[266] Magni, *supra* note 130

become a tool of international legislation. Article XVIII of the IAC provides that "each Party shall adopt measures in its respective national lawsfor implementation of the provisions of this Convention and to ensure effective compliance by means of policies, plans and programs for the protection and conservation of sea turtles and their habitats". In that case, there is a need to determine whether the IAC has the authority to substitute the conduct of TED certification process in the Americas including the annual US Department of State inspection on TED use in Latin America.

Annex III (7) of the IAC demonstrates the needs to establish on the regional level a common certification organization that can assure the evaluation of the TED requirement compliance in the Latin American region. For instance, according to Annex III "recommended TEDs shall be those TEDs determined by the Parties, with advice from the Consultative Committee, to reduce the incidental capture of sea turtles in shrimp trawl fishing operations to the greatest extent practicable"[267], and at their first meeting, the Parties shall develop an initial list of recommended TEDs, which they may modify at subsequent meetings[268]. Until the first meeting of the Parties, each Party shall determine, in accordance with its laws and regulations, which TEDs to require for use by shrimp trawl vessels subject to its jurisdiction in order to reduce the incidental capture of sea turtles in shrimp trawl fishing operations to the greatest extent practicable, based on consultations with other Parties[269].

In sum, to avoid the difficulties created by the diversity and levels of regulations, there is really a need to establish an implementation mechanism that

[267] Annexe III (7)(a) of the IAC
[268] Annexe III (7)(b) of the IAC
[269] Annexe III (7)(c) of the IAC

will assure the uniformity of the TED requirement that will implement the whole Convention Area. Moreover, in order to export shrimp in the US without any problem, it would be better to meet the standard of comparability with the US TED requirement, which would be more easier to apprehend from the US side when the requirement is assured by a certification organization that could assure the whole Convention Area.

5.2 The Indian Ocean and South East Asian Marine Turtle Memorandum of Understanding (IOSEA/MOU)

The Indian Ocean and South East Asian Marine Turtle Memorandum of Understanding was convened in 2003 to protect, conserve, replenish and recover marine turtles and their habitats, based on the best scientifc evidence, taking into account the environmental, socio-economic and cultural characteristics of the signatory States in the region of the Indian Ocean and South East Asia.
To achieve the objective of the Memorandum of Understanding, in a spirit of mutual understanding and co-operation, the signatory States will implement, subject to availability of necessary resources, the provisions of the Conservation and Management Plan which is annexed to this Memorandum of Understanding. The Conservation and Management Plan shall address: marine turtle habitat protection; management of direct harvesting and trade; reduction of threats, including fisheries by-catch; research and education; information exchange; and capacity building[270].

[270] Memorandum of Understanding on the Conservation and Management of Marine Turtles and Their Habitats of the Indian Ocean and South-East Asia

According to its basic principles, this MOU shall be considered an agreement under Article IV, paragraph 4, of the 1979 Convention on the Conservation of Migratory Species, and Each signatory State will implement, within the limits of its jurisdiction, the MOU with respect toits land territory in the Region; the marine areas in the Region under its national jurisdiction; and the vessels operating in the Region under its flag.

In terms of the legal character of the MOU, it was discussed in the first meeting of the signatory States in June 2001 that States would consider the development of a possible amendment of the legal character of the MOU from non-binding to binding character[271]. Signatory States were invited to make their views known on this issue. The United States, being an interested party of the MOU and as an observer answered the call and submitted its view in regard to that implementation status. From the beginning of the negotiation of the MOU, the United States supported creating a legally binding agreement. This position reflects, among other things, the desire for all of the nations and entities, "with a stake in the conservation of these species to be responsible for each other in their efforts, across both the range and scope of the species and the obligations each government takes on to protect them[272]". However it was the desire of the countries participating in that negotiation that the first iteration of any agreement should be a cooperative and comprehensive, but non-binding, agreement. The MOU and the integral Conservation and Management Plan are still in their early stages, and implementation of its provisions remains under review in many countries. Many other countries whose participation as Signatories is key to the success of the MOU are still in process of securing the internal approvals

[271] MT-IOSEA/SS.1/Doc.12, 15 January 2003, Agenda 10
[272] MT-IOSEA/SS.1/Doc.12, 15 January 2003, Agenda 10

necessary to sign the MOU. In addition, the first meeting of the Signatories is the first opportunity many Signatories have had to participate in a significant collaborative discussion of the MOU, now that it is entered into force. Therefore, the United States believes that at the moment of the development of this timetable[273] it would be premature to embark on a transition to a legally binding treaty or other arrangement. However, it remains the position of the United States that as the MOU takes life and its provisions are more fully implemented throughout the region, the conversion of the MOU into a legally binding agreement remains a vital objective.

In regard to the comparability with the TED requirement, it is clear that once the MOU is converted into a legally binding agreement, it is a justification that the MOU itself would be able to substitute the US DOS annual inspection for TED certification.

Section 6: Considering social criteria as part of sea food labelling requirements

The 1992 Convention on Biological Diversity, in its Article 10 (c) provides that each Contracting Party shall as far as possible and as appropriate " protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements." ...and " encourage cooperation between its governmental authorities and its private sector in developing methods for sustainable use of biological resources" [Article 10(e)].

Regarding the process of ecolabelling, it is important to study the environmental dimensions with the social dimensions of the labelling, because

[273] Possible Amendment of the Legal Character of the MOU, Position of the United States, Prepared by the Interim Secretariat 2003

the protection of marine environment and wldlife can not be separated from the needs of littoral fishing communities, especially in developing countries. Generally, sustainable fisheries imply sustainable development of the fishing population. Among environmental elements, the TED requirement is a good principle and model for many exporting countries to follow in oder to certify their products within their own countries. The certification procedure should be based on each country's environmental standard in order to make the process environmentally sensitive and politically correct. One of the important criteria isto require the social accountability of sustainable fisheries. For instance, labelling organizations would certify fisheries if industrial fishing companies have respected the traditional fishing rights of indigenous people or the littoral communities. MSC Principle and Criteria should consider social dimensions.

TABLE OF AUTHORITIES

1. 1982 United Nations Convention on the Law of the Sea (UNCLOS)

2. 1992 Convention on Biological Diversity

3. 1992 Agenda 21 of the United Nations Conference onEnvironment and Development (UNCED)

4. 2002 World Summit for Sustainable Development.

5. 1979 Convention on the Conservation of Migratory Species of Wild Animals

6. United Nations General Assembly, Resolution 1803 (XVII) (Dec. 14, 1962);

7. Declaration to the Right to Development, United Nations General Assembly, Resolution 41/128 (Dec 4 , 1986)

8. 1985 Association of South East Asian Nations, Agreement on the Conservation of Nature and Natural Resources– (ASEAN Agreement)

9. 1967 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, Jan 27, 1967, 610 U.N.T.S. 205

10. 1972 UNESCO Convention for the Protection of World Cultural and Natural Heritage

11. US Public Law 101-162 Relating to the Protection of Sea Turtles in Shrimp Trawl Fishing Operations

12. 1999 US Department of States Guidelines for the Implementation of Section 609 of Public Law 101-162 Relating to the Protection of Sea Turtles in Shrimp
Trawl Fishing Operations

13. *Portaria* 36/94 MMA-IBAMA, 1994 (Brazil)

14. Décret 2003-1101 du 25 Novembre 2003 modifiant certaines disposition du Décret 71238 du 12 Mai 1971, réglementant l'exercice de la pêche par chalutage dans la mer territoriale malgache (Madagascar)

15. 1995 Agreement on the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stock.

16. 1995 FAO Code of Conduct for Responsible Fisheries

17. 1993 FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (Compliance Agreement)

18. Ordonnance 93 022 du 4 Mai 1993 portant réglementation de la pêche et de l'aquaculture (Madagascar)

19. Loi 97-024 du 14 Août 1997 portant Regime National de la Normalization et de la Certification des Produits, Biens et Services (Journal Officiel n° 2456 du 29.9.97) (Madagascar)

20. Décret 2003-1101 du 25 Novembre 2003 modifiant certaines disposition du Décret 71238 du 12 Mai 1971, réglementant l'exercice de la pêche par chalutage dans la mer territoriale malgache Article 12 Nouveau: La mise en place obligatoire d'un dispositf d'échappement des tortues (TED).

21. FAO Guidelines adopted by the twenty-sixth session of the Committee on Fisheries (COFI), Rome, 7-11 March 2005

BIBLIOGRAPHY

1. Churchill, Lowe, The Law of the Sea, 3rd Edition, Melland Shill Studies in International Law, 1999
2. Lugten, (G) Soft Law With Hidden Teeth: The Case for a FAO International Plan of Action on Sea Turtles, Journal of international Wildlife Law , 2005
3. Kibel The Difficult Swim: The Sea Turtle Navigates GATT", in *" The Earth on Trial*
4. Hall (M), Alverson (D), Bycatch: Problems and Solutions, 41 Marine Pollution Bulletin 201, 204 (2000)
5. Hall (M), On Bycatches, 6 Rev of Fish Biology & Fisheries 319-352
6. Gladstone, Andriantahiana, Soafiavy, "Azafady Project Fanomena – Marine Turtle Conservation and Research in Southeast Madagascar, Report on Activities and Findings in the 2001-2002 Nesting Season
7. Wold (C), The Status of Sea Turtles Under International Environmental Law and International Environmental Agreements, 1997
8. United Nations General Assembly, Resolution 1803 (XVII) (December 14, 1962)
9. Cyril de Klemm, *Migratory Species in International Law,* 29 Natural.Res.J 935, 938 (1989)
10. John Pilger, The New Rulers of the World, *in READER* Gender and Trade Network in Africa - GENTA Publications (2001)
11. Jonathan Peacey, *The Marine Stewardship Council Fisheries Certification Program: Progress and Challenges*, 2000
12. Office National pour l'Environnement, Document d'Orientation pour une Politique Nationale de Gestion Integree des Zones Cotieres de Madagascar, 2001
13. Rakotoson (L), Integrated Coastal Zone Management: From International to Regional and National Perspectives", Seminar Paper, Spring 2003

14. Edward L. Miles & William T. Burke, *Pressure on the United Nations Convention on the Law of the Sea Arising fromNew Fisheries Conflicts: The problem of Straddling Stocks,* 20 Ocean Dev. & Int'l L. 343, 351 (1989)
15. Nanda (V), Pring (G), *International Environmental Law & Policy for the 21st Century*, New York, Transnational Publishers, 2003
16. Joyner, *Legal Implication of the Common Heritage of Mankind*, The international and Comparative Law Quarterly 35 (1986); 190199
17. Montague (P), *Rachel's Environment & Health Weekly*, 1998
18. Raffensperger (C), The Precautionary Principle, NGO Biotechnology Briefing for White House Officials, June 1999
19. Magni (L.P.), Are Unilateral Trade Measures Justifiable for Environmental Protection? The Shrimp-Turtle Case in Brazil, Masters Thesis, International Relations Institute, University of Brazil, 2005
20. FAO, Report of the Workshop assessing the Relative Importance of Sea Turtles Mortality Due to Fisheries, Zanzibar, United Republic of Tanzania, 25-28 April 2006
21. Gove (D), Pacule (H), Gonçalves (M), The Impact of Sofala Bank (Central Mozambique) Shallow Water Shrimp Fishery on Marine Turtles and the Effect of Introducing TED (Turtles Excluder Devices) on Shrimp Fishery, December 2001
22. WWF/Unilever *The Marine Stewardship Council*, DVD Presentation, 2000
23. OECD 1991 Environmental Labelling in OECD Countries, OECD Report 12
24. An Ecolabel for Shrimp: Minimizing Potential Trade Barriers, Mimeograph prepared for International Environmental Law Clinic at NYU School of Law International Environmental Law Clinic at NYU School of Law.
25. WTO/Committee on Trade and Environment , Ecolabelling Overview of Current Work in Various International Fora, Note WT/CTE/W/45, WTO, OECD, Geneva – 1997a. *Processes and Production Methods (PPMs): Conceptual Framework and Considerations on Use of PPM-Based Trade Measures,* OECD Paris – 1997b. *Ecolabelling: Actual Effects of Selected Programmes,*OECD, Paris.

26. Wessells *et al.*, Product Certification and ecolabelling for Fisheries Sustainability, FAO Technical Papers-T422, 2001, 83 p
27. Hedlund (S), MSC Reaches Tipping Point, Seafood Business Top Story, January 2007
28. Australian APEC Study Centre, The Trade and Environment Handbook, 2002
29. Jones (W), Walkenhorst (P), The impact of Regulations on Agro-Food Trade: The Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary Measures (SPS) Agreements, OECD 2003)
30. FAO /COFI, Progress in the Implementation of the Code of Conduct for Responsible Fisheries and Related International Plans of Action , 26th Session, Rome, Italy, 7-11 March 2005
31. Report of the Twenty Sixth Session of the Committee on Fisheries, FAO Fisheries Report, Rome 2005
32. Cooke (A) Vers l'exploitation durable des pêches à Madagascar: Le rôle stratégique de la surveillance des pêches avec des reflexions sur son aménagement institutionnel, Rapport Préliminaire, CSP 2001
33. Birnie (P), Boyle (A), International Law and the Environment 25, 2nd Edition, 2002
34. Peacey (J), "The Marine Stewardship Council Fisheries Certification Program: Progress and challenges
35. Conclusions et Recommandations de la Conférence Internationale sur la Crevêticulture Responsable, Antananarivo Madagascar, le 3,4 et 5 Décembre 2002
36. O'Riordan, *Two Controversial Miles*, SAMUDRA, August 2001.
37. Rakotoson (L), Report on Pre-Workshop with Traditional Fishermen, Maroantsetra November 2002

Appendix A

TED REGULATION 50 CFR 223 206

Found in the U.S. Code of Federal Regulations (CFR) Title 50, Part 223, Section 206 (50CFR 223.206)

2) Gear requirements for trawlers--(i) TED requirement for shrimp trawlers. Any shrimp trawler that is in the Atlantic Area or Gulf Area must have an approved TED installed in each net that is rigged for fishing. A net is rigged for fishing if it is in the water, or if it is shackled, tied, or otherwise connected to any trawl door or board, or to any tow rope, cable, pole or extension, either on board or attached in any manner to the shrimp trawler. Exceptions to the TED requirement for shrimp trawlers are provided in paragraph (d)(2)(ii) of this section. (ii) Exemptions from the TED requirement--(A) Alternative tow-time restrictions.

A shrimp trawler is exempt from the TED requirements of paragraph (d)(2)(i) of this section if it complies with the alternative tow-time restrictions in paragraph (d)(3)(i) of this section and if it:

(1) Has on board no power or mechanical-advantage trawl retrieval system (i.e., any device used to haul any part of the net aboard);

(2) Is a bait shrimper that retains all live shrimp on board with a circulating seawater system, if it does not possess more than 32 lb. (14.5 kg) of dead shrimp on board, if it has a valid original state bait-shrimp license, and if the state license allows the licensed vessel to participate in the bait shrimp fishery exclusively;

(3) Has only a pusher-head trawl, skimmer trawl, or wing net rigged for fishing;

(4) Is in an area during a period for which tow-time restrictions apply under paragraphs (d)(3)(ii) or (iii) of this section, if it complies with all applicable provisions imposed under those paragraphs; or

(5) Is using a single test net (try net) with a headrope length of 12 ft (3.6 m) or less and with a footrope length of 15 ft (4.6 m) or less, if it is pulled immediately in front of another net or is not connected to another net in any way, if no more than one test net is used at a time, and if it is not towed as a primary net, in which case the exemption under this paragraph (d)(2)(ii)(A) applies to the test net.

(B) Exempted gear or activities. The following fishing gear or activities are exempted from the TED requirements of paragraph (d)(2)(i) of this section:

(1) A beam or roller trawl, if the frame is outfitted with rigid vertical bars, and if none of the spaces between the bars, or between the bars and the frame, exceeds 4 inches (10.2 cm); and

(2) A shrimp trawler fishing for, or possessing, royal red shrimp, if royal red shrimp constitutes at least 90 percent (by weight) of all shrimp either found on board, or offloaded from that shrimp trawler.

(iii) Gear requirement--summer flounder trawlers--(A) TED requirement. (1) Any summer flounder trawler in the summer flounder fishery-sea turtle protection area must have an approved TED installed in each net that is rigged for fishing. A net is rigged for fishing if it is in the water, or if it is shackled, tied, or otherwise connected to any trawl door or board, or to any tow rope, cable, pole or extension, either on board or attached in any manner to the summer flounder trawler. Exceptions to the TED

requirement for summer flounder trawlers are provided in paragraph (d)(2)(iii)(B) of this section.

(2) Any approved hard TED or special hard TED installed in a summer flounder trawl must be installed in a TED extension. The TED extension is a cylindrical piece of webbing distinct from the main trawl's body, wings, codend, and any other net extension(s). The TED extension must be constructed of webbing no larger than 3.5 inch (8.9 cm) stretched mesh. The TED extension must extend at least 24 inches (61.0 cm) but not more than 36 inches (91.4 cm) forward of the leading edge of the TED and aft of the trailing edge of the grid.

(B) Exemptions from the TED requirement. Any summer flounder trawler north of 35[deg]46.1[min] N. lat. (Oregon Inlet, NC) from January 15 through March 15 annually is exempt from the TED requirement of paragraph (d)(2)(iii)(A) of this section, unless the Assistant Administrator determines that TED use is necessary to protect sea turtles or ensure compliance, pursuant to the procedures of paragraph (d)(4) of this section

(C) Monitoring. Summer flounder trawlers must carry onboard a NMFS-approved observer if requested by the Southeast Regional Administrator or the Northeast Regional Administrator. A written notification will be sent to the address specified for the vessel in either the NMFS or state fishing permit application, or to the address specified for registration or documentation purposes, or upon written notification otherwise served on the owner or operator of the vessel. Owners and operators must comply with the terms and conditions specified in such written notification. All NMFS-approved observers will report any violations of this section, or other applicable regulations and laws. Information collected by observers may be used for enforcement purposes.

(D) Additional sea turtle conservation measures. The Assistant Administrator may impose other such restrictions upon summer flounder trawlers as the Assistant Administrator deems necessary or appropriate to protect sea turtles and ensure compliance, pursuant to the procedures of paragraph (d)(4) of this section. Such measures may include, but are not limited to, a requirement to use TEDs in areas other than summer flounder fishery-sea turtle protection area, a requirement to use limited tow-times, and closure of the fishery.

(3) Tow-time restrictions--(i) Duration of tows. If tow-time restrictions are utilized pursuant to paragraph (d)(2)(ii), (d)(3)(ii), or (d)(3)(iii) of this section, a shrimp trawler must limit tow times. The tow time is measured from the time that the trawl door enters the water until it is removed from the water. For a trawl that is not attached to a door, the tow time is measured from the time the codend enters the water until it is removed from the water. Tow times may not exceed:

(A) 55 minutes from April 1 through October 31; and

(B) 75 minutes from November 1 through March 31.

(ii) Alternative--special environmental conditions. The Assistant Administrator may allow compliance with tow-time restrictions, as an alternative to the TED requirement of paragraph (d)(2)(i) of this section, if the Assistant Administrator determines that the presence of algae, seaweed, debris or other special environmental conditions in a particular area makes trawling with TED-equipped nets impracticable.

(iii) Substitute--ineffectiveness of TEDs. The Assistant Administrator may require compliance with tow-time restrictions, as a substitute for the TED requirement of

paragraph (d)(2)(i) of this section, if the Assistant Administrator determines that TEDs are ineffective in protecting sea turtles.

(iv) Notice; applicability; conditions. The Assistant Administrator will publish notification concerning any tow-time restriction imposed under paragraph (d)(3)(ii) or (iii) of this section in the Federal Register and will announce it in summary form on channel 16 of the marine VHF radio. A notification of tow-time restrictions will include findings in support of these restrictions as an alternative to, or as substitute for, the TED requirements. The notification will specify the effective dates, the geographic area where tow-time restrictions apply, and any applicable conditions or restrictions that the Assistant Administrator determines are necessary or appropriate to protect sea turtles and ensure compliance, including, but not limited to, a requirement to carry observers, to register vessels in accordance with procedures at paragraph (d)(5) of this section, or for all shrimp trawlers in the area to synchronize their tow times so that all trawl gear remains out of the water during certain times. A notification withdrawing tow-time restrictions will include findings in support of that action.

(v) Procedures. The Assistant Administrator will consult with the appropriate fishery officials (state or Federal) where the affected shrimp fishery is located in issuing a notification concerning tow-time restrictions. An emergency notification can be effective for a period of up to 30 days and may be renewed for additional periods of up to 30 days each if the Assistant Administrator finds that the conditions necessitating the imposition of tow-time restrictions continue to exist. The Assistant Administrator may invite comments on such an action, and may withdraw or modify the action by following procedures similar to those for implementation. The Assistant Administrator will implement any permanent tow-time restriction through rulemaking.

(4) Limitations on incidental takings during fishing activities--(i) Limitations. The exemption for incidental takings of sea turtles in paragraph (d) of this section does not authorize incidental takings during fishing activities if the takings:

(A) Would violate the restrictions, terms, or conditions of an incidental take statement or biological opinion;

(B) Would violate the restrictions, terms, or conditions of an incidental take permit; or

(C) May be likely to jeopardize the continued existence of a species listed under the Act.

(ii) Determination; restrictions on fishing activities. The Assistant Administrator may issue a determination that incidental takings during fishing activities are unauthorized. Pursuant thereto, the Assistant Administrator may restrict fishing activities in order to conserve a species listed under the Act, including, but not limited to, restrictions on the fishing activities of vessels subject to paragraph (d)(2) of this section. The Assistant Administrator will take such action if the Assistant Administrator determines that restrictions are necessary to avoid unauthorized takings that may be likely to jeopardize the continued existence of a listed species. The Assistant Administrator may withdraw or modify a determination concerning unauthorized takings or any restriction on fishing activities if the Assistant Administrator determines that such action is warranted.

(iii) Notice; applicability; conditions. The Assistant Administrator will publish a notification of a determination concerning unauthorized takings or a notification

concerning the restriction of fishing activities in the Federal Register. The Assistant Administrator will provide as much advance notice as possible, consistent with the requirements of the Act, and will announce the notification in summary form on channel 16 of the marine VHF radio. Notification of a determination concerning unauthorized takings will include findings in support of that determination; specify the fishery, including the target species and gear used by the fishery, the area, and the times, for which incidental takings are not authorized; and include such other conditions and restrictions as the Assistant Administrator determines are necessary or appropriate to protect sea turtles and ensure compliance. Notification of restriction of fishing activities will include findings in support of the restriction, will specify the time and area where the restriction is applicable, and will specify any applicable conditions or restrictions that the Assistant Administrator determines are necessary or appropriate to protect sea turtles and ensure compliance. Such conditions and restrictions may include, but are not limited to, limitations on the types of fishing gear that may be used, tow-time restrictions, alteration or extension of the periods of time during which particular tow-time requirements apply, requirements to use TEDs, registration of vessels in accordance with procedures at paragraph (d)(5) of this section, and requirements to provide observers. Notification of withdrawal or modification will include findings in support of that action.

(iv) Procedures. The Assistant Administrator will consult with the appropriate fisheries officials (state or Federal) where the fishing activities are located in issuing notification of a determination concerning unauthorized takings or notification concerning the restriction of fishing activities. An emergency notification will be effective for a period of up to 30 days and may be renewed for additional periods of up to 30 days each. The Assistant Administrator may invite comments on such action, and may withdraw or modify the action by following procedures similar to those for implementation. The Assistant Administrator will implement any permanent determination or restriction through rulemaking.

Appendix B

Revised Guidelines for the Implementation of Section 609 of Public Law 101-162 Relating to the Protection of Sea Turtles in Shrimp Trawl Fishing Operations

DEPARTMENT OF STATE

[Public Notice 3086]

Revised Guidelines for the Implementation of Section 609 of Public Law 101-162 Relating to the Protection of Sea Turtles in Shrimp Trawl Fishing Operations

SUMMARY: Section 609 of Public Law 101-162 (``Section 609'') provides that shrimp harvested with technology that may adversely affect certain species of sea turtles may not be imported into the United States. This import prohibition does not apply if the Department of State certifies to Congress that the harvesting nation has a regulatory program and an incidental take rate comparable to that of the United States, or, alternatively, that the fishing environment in the harvesting nation does not pose a threat of the incidental taking of sea turtles. On March 25, 1999, in response to recommendations of the Dispute Settlement Body of the World Trade Organization, the Department of State published a notice in the Federal Register (Public Notice 3013, 64 FR 14481) proposing several revisions to the guidelines issued by the Department on August 28, 1998 for use in making such certifications. In that Federal Register Notice, the Department also requested public comment on certain aspects of those proposals, in accordance with provisions of the Uruguay Round Trade Agreements Act, 16 U.S.C. 3533. This notice reviews and responds to the comments received and provides the current version of the guidelines, which include a number of modifications made pursuant to those comments.

EFFECTIVE DATE: July 8, 1999.

Revised Guidelines

For the sake of clarity, the August 28, 1998 guidelines are restated below as modified to reflect the changes proposed in the Federal Register notice issued March 25, 1999, and the comments

received on those proposed changes.

I. Introductory Material

A. The U.S. Program

Since certification decisions under Section 609(b)(2)(A) and (B) are based on comparability with the U.S. program governing the incidental taking of sea turtles in the course of shrimp harvesting, an explanation of the components of that program follows. The U.S. program requires that commercial shrimp trawl vessels use TEDs approved in accordance with standards established by the U.S. National Marine Fisheries Service (NMFS), in areas and at times when there is a likelihood of intercepting sea turtles. The goal of this program is to protect sea turtle populations from further decline by reducing the incidental mortality of sea turtles in commercial shrimp trawl operations.

The commercial shrimp trawl fisheries in the United States in which there is a likelihood of intercepting sea turtles occurs in the temperate waters of the Gulf of Mexico and the Atlantic Ocean from North Carolina to Texas. With very limited exceptions, all U.S. commercial shrimp trawl vessels operating in these waters must use approved TEDs at all times and in all areas. The only exceptions to this requirement are as follows:

a. Vessels equipped exclusively with wing nets, skimmer trawls, and pusher-head trawls when used in conjunction with certain restricted tow times are not required to use TEDs because their operations do not pose a threat to sea turtles. Vessels equipped with barred beam trawls and/ or barred roller trawls are not required to use TEDs. Single try nets (with less than a twelve foot headrope and fifteen foot rope) are not required to use TEDs.

b. Vessels whose nets are retrieved exclusively by manual rather than mechanical means are not required to use TEDs because the lackof a mechanical retrieval system necessarily limits tow times to a short duration so as not to pose a threat of the incidental drowning of sea turtles. This exemption applies only to vessels that have no power or mechanical-advantage trawl retrieval system.

c. In exceptional circumstances, where NMFS determines that the use of TEDs would be impracticable because of special environmental conditions such as the presence of algae, seaweed, or debris, or that TEDs would be ineffective in protecting seaturtles in particular areas, vessels are permitted to restrict tow times instead of using TEDs. Such exceptions are generally limited to two periods of 30 days each. In practice, NMFS has permitted such exceptions only rarely.

With these limited exceptions, all other commercial shrimp trawl vessels operating in waters subject to U.S. jurisdiction in which there

is a likelihood of intercepting sea turtles must use TEDs at all times. For more information on the U.S. program governing the incidental taking of sea turtles in the course of commercial shrimp trawl harvesting, see 50 CFR 227.17 and 50 CFR 227.72(e).

B. Shrimp Harvested in a Manner Not Harmful to Sea Turtles

The Department of State has determined that the import prohibitions imposed pursuant to Section 609 do not apply to shrimp or products of shrimp harvested under the following conditions, since such harvesting does not adversely affect sea turtle species:

a. Shrimp harvested in an aquaculture facility in which the shrimp spend at least 30 days in pond prior to being harvested.

b. Shrimp harvested by commercial shrimp trawl vessels using TEDs comparable in effectiveness to those required in the United States.

c. Shrimp harvested exclusively by means that do not involve the retrieval of fishing nets by mechanical devices, such as winches, pulleys, power blocks or other devices providing mechanical advantage, or by vessels using gear that, in accordance with the U.S. program described above, would not require TEDs.

d. Shrimp harvested in any other manner or under any other circumstances that the Department of State may determine, following consultation with the NMFS, does not pose a threat of the incidental taking of sea turtles. The Department of State shall publish any such determinations in the Federal Register and shall notify affected foreign governments and other interested parties directly.

C. Shrimp Exporter's/Importer's Declaration

The requirement that all shipments of shrimp and products of shrimp imported into the United States must be accompanied by a declaration (DSP-121, revised) became effective as of May 1, 1996 and remains effective. The DSP-121 attests that the shrimp accompanying the declaration was harvested either under conditions that do not adversely affect sea turtles (as defined above) or in waters subject to the jurisdiction of a nation currently certified pursuant to Section 609.

All declarations must be signed by the exporter. The declaration must accompany the shipment through all stages of the export process, including any transformation of the original product and any shipment through any intermediary nation. As before, the Department of State will make copies of the declaration readily available. Local reproduction of the declarations is fully acceptable.

The requirement that a government official of the harvesting nation not currently certified pursuant to Section 609 must also sign the DSP-121 asserting that the accompanying shrimp was harvested under conditions that do not adversely affect sea turtles species remains effective. In order to protect against fraud, the Department will continue to conduct periodic reviews of the systems that such foreign governments have put in place to verify the statements made on the DSP-121 form.

Date of Export. Import prohibitions shall not apply to shipments of shrimp and products of shrimp with a date of export falling at a time in which the harvesting nation is currently certified pursuant to Section 609.
Country of Origin. For purposes of implementing Section 609, the country of origin shall be deemed to be the nation in whose waters the shrimp is harvested, whether or not the harvesting vessel is flying the flag of another nation.

E. Review of Information

The government of any harvesting nation may request that the Department of State review any information regarding the particular shrimp fishing environment and conditions in that nation, or within a distinct geographic region of that nation, in making decisions pursuant to Section 609. Such information may be presented to demonstrate, inter alia:
(1) That some portion of the shrimp intended to be exported from that nation to the United States is harvested under one of the conditions identified above as not adversely affecting species of sea turtles;
(2) That the government of that nation has adopted a regulatory program governing the incidental taking of sea turtles in the course of commercial shrimp trawl fishing that is comparable to the U.S. program and, therefore, that the nation is eligible for certification under Section 609(b)(2)(A) and (B); or
(3) That the fishing environment in that nation does not pose a threat of the incidental taking of sea turtles and, therefore, that the nation is eligible for certification under Section 609(b)(2)(C).
Such information should be based on empirical data supported by objective scientific studies of sufficient duration and scope to provide the information necessary for a reliable determination. In addition, information submitted to support a request for any such determination should include available biological data regarding the resources in question and operational information relating to the activities of the fishing fleet that are relevant to determining whether or not the fishing environment of the harvesting nation is likely to pose a threat to sea turtles. Studies intended to show the rate of incidental taking of sea turtles in a given shrimp fishery should, at a minimum, contain data for an entire fishing season. Upon request, the United States will review and provide comments on a planned or existing study with respect to sample size, scientific methodology and other factors that affect whether such a study provides a sufficient basis for making a reliable determination.
The Department will fully review and take into consideration all such information and, in consultation with the NMFS, respond in writing to the government of the harvesting nation within 120 days from the date on which the information is received.
The Department, in consultation with the NMFS, will also take into consideration information on the same subjects that may be available from other sources, including but not limited to academic and

scientific organizations, intergovernmental organizations and non-governmental organizations with recognized expertise in the subject matter.

II. Guidelines for Making Certification Decisions

A. Certification Pursuant to Section 609(b)(2)(C)

Section 609(b)(2)(C) authorizes the Department of Stateto certify a harvesting nation if the particular fishing environment of the harvesting nation does not pose a threat of incidental taking of sea turtles in the course of commercial shrimp trawl harvesting. Accordingly, the Department shall certify any harvesting nation meeting the following criteria without the need for action on the part of the government of the harvesting nation:
a. Any harvesting nation without any of the relevant species of sea turtles occurring in waters subject to its jurisdiction;
b. Any harvesting nation that harvests shrimp exclusively by means that do not pose a threat to sea turtles, e.g., any nation that harvests shrimp exclusively by artisanal means;
c. Any nation whose commercial shrimp trawling operations take place exclusively in waters subject to its jurisdiction in which sea turtles do not occur.

B. Certification Pursuant to Section 609(b)(2)(A) and (B)

Under Section 609(b)(2), the Department of State shall certify any other harvesting nation by May 1st of each year if ``the government of (that) nation has provided documentary evidence of the adoption of a regulatory program governing the incidental taking of such sea turtles in the course of such harvesting that is comparable to that of the United States" and if ``the average rate of that incidental taking by vessels of the harvesting nation is comparable to the average rate of incidental taking of sea turtles by United States vessels in the course of such harvesting."
a. Regulatory Program. The Department of State shall assess regulatory programs, as described in any documentary evidence provided by the governments of harvesting nations, for comparability with the U.S. program.
Where standard otter trawl nets are used in shrimp fisheries in waters where sea turtles are present, sea turtles will inevitably be captured and drowned. The Department of State is presently aware of no measure or series of measures that can minimize the capture and drowning of sea turtles in such nets that is comparable in effectiveness to the required use of TEDs.
1. If the government of the harvesting nation seeks certification on the basis of having adopted a TEDs program, certification shall be made if a program includes the following:
(i) Required Use of TEDs a requirement that all commercial shrimp trawl vessels operating in waters in which there is a likelihood of

intercepting sea turtles use TEDs at all times. TEDs must be comparable in effectiveness to those used in the United States. Any exceptions to this requirement must be comparable to those of the U.S. program described above; and (ii) Enforcement--a credible enforcement effort that includes monitoring for compliance and appropriate sanctions.
2. If the government of a harvesting nation demonstrates thatit has implemented and is enforcing a comparably effective regulatory program to protect sea turtles in the course of shrimp trawl fishing without the use of TEDs, that nation will also be eligible for certification. As described above, such a demonstration would need to be based on empirical data supported by objective scientific studies of sufficient duration and scope to provide the information necessary for a reliable determination. In reviewing any such information, the Department of State will take fully into account any demonstrated differences between the shrimp fishing conditions in the United States and those in other nations, as well as information available from other sources.

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b. Incidental Take. Average incidental take rates will be deemed comparable if the harvesting nation requires the use of TEDs in a manner comparable to that of the U.S. program or, as described above, otherwise demonstrates that it has implemented a comparably effective program to protect sea turtles in the course of shrimp trawl fishing without the use of TEDs.
c. Additional Considerations. 1. Form--A regulatory program may be in the form of regulations promulgated by the government of the harvesting nation and having the force of law. If the legal system and industry structure of the harvesting nation permit voluntary arrangements between government and the fishing industry, such an arrangement may be acceptable so long as there is a governmental mechanism to monitor compliance with the arrangement and to impose penalties for non-compliance, and reliable confirmation that the fishing industry is complying with the arrangement.
2. Documentary Evidence--Documentary evidence may be in the form of copies of the relevant laws, regulations or decrees. If the regulatory program is in the form of a government-industry arrangement, then a copy of the arrangement is required. Harvesting nations are encouraged to provide, to the extent practicable, information relating to the extent of shrimp harvested by means of aquaculture.
3. Additional Sea Turtle Protection Measures--The Department of State recognizes that sea turtles require protection throughout their life cycle, not only when they are threatened during the course of commercial shrimp trawl harvesting. In making certification determinations, the Department shall also take fully into account other measures the harvesting nation undertakes to protect sea turtles, including national programs to protect nesting beaches and other habitat, prohibitions on the directed take of sea turtles, national enforcement and compliance programs, and participation in any

international agreement for the protection and conservation of sea turtles. In assessing any information provided by the governments of harvesting nations in this respect, the Department of State will rely on the technical expertise of NMFS and, where appropriate, the US Fish and Wildlife Service to evaluate threats to sea turtles and the effectiveness of sea turtle protection programs.

4. Consultations--The Department of State will engage in ongoing consultations with the governments of harvesting nations. The Department recognizes that, as sea turtle protection programs develop, additional information will be gained about the interaction between sea turtle populations and shrimp fisheries.

These Guidelines may be revised in the future to take into consideration that and other information, as well as to take into account changes in the U.S. program. These Guidelines may also be revised as a result of pending domestic litigation. In addition, the Department will continue to welcome public input on the best ways to implement both these Guidelines and Section 609 as a whole and may revise these guidelines in the future accordingly.

C. Timetable and Procedures for Certification Decisions

Each year the Department will consider for certification: (a) any nation that is currently certified, and (b) any other shrimp harvesting nation whose government requests such certificaton in a written communication to the Department of State through diplomatic channels prior to September 1 of the preceding year. Any such communication should include any information not previously provided that would support the request for certification, including the information specified above under Review of Information.

Between September 1 and March 1, U.S. officials will seek to visit those nations requesting certifications pursuant to Section 609(b)(2)(A) and (B). Each visit will conclude with a meeting between the U.S. officials and government officials of the harvesting nationto discuss the results of the visit and to review any identified deficiencies regarding the harvesting nation's program to protect sea turtles in the course of shrimp trawl fishing.

By March 15, the Department of State will notify in writing through diplomatic channels the government of each nation that, on the basis of available information, including information gathered during such visits, does not appear to qualify for certification. Such notification will explain the reasons for this preliminary assessment, suggest steps that the government of the harvesting nation can take in order to receive a certification and invite the government of the harvesting nation to provide, by April 15, any further information. If the government of the harvesting nation so requests, the Department of State will schedule face-to-face meetings between relevant U.S. officials and officials of the harvesting nation to discussthe situation.

Between March 15 and May 1, the Department of State will actively consider any additional information that the government of the

harvesting nation believes should be considered by the Department in making its determination concerning certification.
By May 1 of each year the Department of State will make formal decisions on certification. The governments of all nations that have requested certification will be notified in writing of the decision promptly through diplomatic channels. Inthe case of those nations for which certification is denied, such notification will again state the reasons for such denial and the steps necessary to receive a certification in the future.
The government of any nation that is denied a certification byMay 1 may, at any time thereafter, request reconsideration of that decision. When the United States receives information from that government demonstrating that the circumstances that led to the denial of the certification have been corrected, U.S. officials will visit the exporting nation as early as a visit can be arranged. If the visit demonstrates that the circumstances that led to the denial of the certification have indeed been corrected, the United States will certify that nation immediately thereafter.

D. Special Timetable for 1999

The United States and the four nations that brought the WTO complaint have agreed that the United States would implement the recommendations and rulings of the DSB within 13 months of the adoption of the WTO Appellate Body report by the DSB, i.e., by December 6, 1999. Accordingly, the Department of State hereby establishes the following timetable to apply in 1999 only:
After the date of publication of the revised guidelines, the government of any harvesting nation that was denied certification by May 1, 1999, may request to be certified in accordance with these guidelines in a written communication to the Department of State through diplomatic channels prior to September 1, 1999.
Not later than October 15, 1999, U.S. officials will seek to visit to those nations requesting such certifications. Each visit will conclude with a meeting between the U.S. officials and government officials of the harvesting nation to discuss the results of the visit and to review any identified deficiencies regarding the harvesting nation's program to protect sea turtles in the course of shrimp trawl fishing.
By November 1, 1999, the Department of State will notify in writing through diplomatic channels the government of any nation that, on the basis of available

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information, including information gathered during such visits, does not appear to qualify for certification. Such notification will explain the reasons for this preliminary assessment, suggeststeps that the government of the harvesting nation can take in order to receive a

certification and invite the government of the harvesting nation to provide, by November 15, 1999, any further information.
Between November 15 and December 6, 1999, the Department of State will actively consider any additional information that the government of the harvesting nation believes should be considered by the Department in making its determination concerning certification.
By December 6, 1999, the Department of State will make formal decisions on certification. The governments of all nations that have requested certification under the special 1999 timetable will be notified in writing of the decision promptly through diplomatic channels. In the case of those nations for which certification is denied, such notification will again state the reasons for such denial and the steps necessary to receive a certification in the future.
The government of any nation that is denied a certification by December 6, 1999, may, at any time thereafter, request reconsideration of that decision. When the United States receives information from that government demonstrating that the circumstances that led to the denial of the certification have been corrected, U.S. officials will visit the exporting nation as early as a visit can be arranged. If the visit demonstrates that the circumstances that led to the denial of the certification have indeed been corrected, the United States will certify that nation immediately thereafter.
The Department of State recognizes that a government seeking certification on the basis of the revised guidelines may not, by September 1, 1999, be able to gather sufficient information necessary to support such a request. To meet this concern, and in accordance with its existing practice, the Department will accept requests for certification at any time in 1999 and will process them as expeditiously as possible. However, the Department can only commit to making a certification determination by December 6, 1999 if it has received the necessary information by September 1, 1999.

E. Related Determinations

As noted above, any harvesting nation that is not certified on May 1 of any year may be certified prior to the following May 1 at such time as the harvesting nation meets the criteria necessary for certification. Conversely, any harvesting nation that is certified on May 1 of any year may have its certification revoked prior to the following May 1 at such time as the harvesting nation no longer meets those criteria.
As a matter relating to the foreign affairs function, these guidelines are exempt from the notice, comment, and delayed effectiveness provisions of the Administrative Procedures Act. This action is exempt from Executive Order 12866, and is not subject to the requirements of the Regulatory Flexibility Act.

Dated: June 29, 1999.
Stuart E. Eizenstat,
Under Secretary of State for Economic, Business and Agriculture

Affairs.
[FR Doc. 99-17330 Filed 7-7-99; 8:45 am]
BILLING CODE 4710-09-U

Appendix C

FAO, Code of Conduct for Responsible Fisheries (1995)

PREFACE

From ancient times, fishing has been a major source of food for humanity and a provider of employment and economic benefits to those engaged in this activity. The wealth of aquatic resources was assumed to be an unlimited gift of nature. However, with increased knowledge and the dynamic development of fisheries after the second world war, this myth has faded in face of the realization that aquatic resources, although renewable, are not infinite and need to be properly managed, if their contribution to the nutritional, economic and social well-being of the growing world's population is to be sustained.

The widespread introduction in the mid-seventies of exclusive economic zones (EEZs) and the adoption in 1982, after long deliberations, of the United Nations Convention on the Law of the Sea provided a new framework for the better management of marine resources. The new legal regime of the ocean gave coastal States rights and responsibilities for the management and use of fishery resources within their EEZs which embrace some 90 percent of the world's marine fisheries. Such extended national jurisdiction was a necessary but insufficient step toward the efficient management and sustainable development of fisheries. Many coastal States continued to face serious challenges as, lacking experience and financial and physical resources, they sought to extract greater benefits from the fisheries within their EEZs.

In recent years, world fisheries have become a market-driven, dynamically developing sector of the food industry and coastal States have striven to take advantage of their new opportunities by investing in modern fishing fleets and processing factories in response to growing international demand for fish and fishery products. By the late 1980s it became clear, however, that fisheries resources could no longer sustain such rapid and often uncontrolled exploitation and development, and that new approaches to fisheries management embracing conservation and environmental considerations were urgently needed. The situation was aggravated by the realization that unregulated fisheries on the high seas, in some cases involving straddling and highly migratory fish species, which occur within and outside EEZs, were becoming a matter of increasing concern.

The Committee on Fisheries (COFI) at its Nineteenth Session in March 1991 called for the development of new concepts which would lead to responsible, sustained fisheries. Subsequently, the International Conference on Responsible Fishing, held in 1992 in Cancûn (Mexico) further requested FAO to prepare an international Code of Conduct to address these concerns. The outcome of this Conference, particularly the Declaration of Cancûn, was an important contribution to the 1992 United Nations Conference on Environment and

Development (UNCED), in particular its Agenda 21. Subsequently, the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks was convened, to which FAO provided important technical back-up. In November 1993, the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas was adopted at the Twenty-seventh Session of the FAO Conference (Annex 1).

Noting these and other important developments in world fisheries, the FAO Governing Bodies recommended the formulation of a global Code of Conduct for Responsible Fisheries which would be consistent with these instruments and, in a non-mandatory manner, establish principles and standards applicable to the conservation, management and development of all fisheries. The Code, which was unanimously adopted on 31 October 1995 by the FAO Conference, provides a necessary framework for national and international efforts to ensure sustainable exploitation of aquatic living resources in harmony with the environment (Annex 2).

FAO, in accordance with its mandate, is fully committed to assisting Member States, particularly developing countries, in the efficient implementation of the Code of Conduct for Responsible Fisheries and will report to the United Nations community on the progress achieved and further action required.

INTRODUCTION

Fisheries, including aquaculture, provide a vital source of food, employment, recreation, trade and economic well being for people throughout the world, both for present and future generations and should therefore be conducted in a responsible manner. This Code sets out principles and international standards of behaviour for responsible practices with a view to ensuring the effective conservation, management and development of living aquatic resources, with due respect for the ecosystem and biodiversity. The Code recognises the nutritional, economic, social, environmental and cultural importance of fisheries, and the interests of all those concerned with the fishery sector. The Code takes into account the biological characteristics of the resources and their environment and the interests of consumers and other users. States and all those involved in fisheries are encouraged to apply the Code and give effect to it.

1 - NATURE AND SCOPE OF THE CODE

1.1 This Code is voluntary. However, certain parts of it are based on relevant rules of international law, including those reflected in the United Nations Convention on the Law of the Sea of 10 December 1982 [1]. The Code also contains provisions that may be or have already been given binding effect by means of other obligatory legal instruments amongst the Parties, such as the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, 1993, which, according to FAO Conference resolution 15/93, paragraph 3, forms an integral part of the Code.

1.2 The Code is global in scope, and is directed toward members and non-members of FAO, fishing entities, subregional, regional and global organizations, whether governmental or non-governmental, and all persons concerned with the conservation of fishery resources and management and development of fisheries, such as fishers, those engaged in processing and

marketing of fish and fishery products and other users of the aquatic environment in relation to fisheries.

1.3 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 the integration of fisheries into coastal area management.

1.4 In this Code, the reference to States includes the European Community in matters within its competence, and the term fisheries applies equally to capture fisheries and aquaculture.

ARTICLE 2 - OBJECTIVES OF THE CODE

The objectives of the Code are to:

a. establish principles, in accordance with the relevant rules of international law, for responsible fishing and fisheries activities, taking into account all their relevant biological, technological, economic, social, environmental and commercial aspects;

b. establish principles and criteria for the elaboration and implementation of national policies for responsible conservation of fisheries resources and fisheries management and development;

c. serve as an instrument of reference to help States to establish or to improve the legal and institutional framework required for the exercise of responsible fisheries and in the formulation and implementation of appropriate measures;

d. provide guidance which may be used where appropriate in the formulation and implementation of international agreements and other legal instruments, both binding and voluntary;

e. facilitate and promote technical, financial and other cooperation in conservation of fisheries resources and fisheries management and development;

f. promote the contribution of fisheries to food security and food quality, giving priority to the nutritional needs of local communities;

g. promote protection of living aquatic resources and their environments and coastal areas;

h. promote the trade of fish and fishery products in conformity with relevant international rules and avoid the use of measures that constitute hidden barriers to such trade;

i. promote research on fisheries as well as on associated ecosystems and relevant environmental factors; and

j. provide standards of conduct for all persons involved in the fisheries sector.

3 - RELATIONSHIP WITH OTHER INTERNATIONAL INSTRUMENTS

3.1 The Code is to be interpreted and applied in conformity with the relevant rules of international law, as reflected in the United Nations Convention on the Law of the Sea, 1982. Nothing in this Code prejudices the rights, jurisdiction and duties of States under international law as reflected in the Convention.

3.2 The Code is also to be interpreted and applied:

a. in a manner consistent with the relevant provisions of the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks;

b. in accordance with other applicable rules of international law, including the respective obligations of States pursuant to international agreements to which they are party; and

c. in the light of the 1992 Declaration of Cancun, the 1992 Rio Declaration on Environment and Development, and Agenda 21 adopted by the United Nations Conference on Environment and Development (UNCED), in particular Chapter 17 of Agenda 21, and other relevant declarations and international instruments.

4 - IMPLEMENTATION, MONITORING AND UPDATING

4.1 All members and non-members of FAO, fishing entities and relevant subregional, regional and global organizations, whether governmental or non-governmental, and all persons concerned with the conservation, management and utilization of fisheries resources and trade in fish and fishery products should collaborate in the fulfilment and implementation of the objectives and principles contained in this Code.

4.2 FAO, in accordance with its role within the United Nations system, will monitor the application and implementation of the Code and its effects on fisheries and the Secretariat will report accordingly to the Committee on Fisheries (COFI). All States, whether members or non-members of FAO, as well as relevant international organizations, whether governmental or non-governmental should actively cooperate with FAO in this work.

4.3 FAO, through its competent bodies, may revise the Code, taking into account developments in fisheries as well as reports to COFI on the implementation of the Code.

4.4 States and international organizations, whether governmental or non-governmental, should promote the understanding of the Code among those involved in fisheries, including, where practicable, by the introduction of schemes which would promote voluntary acceptance of the Code and its effective application.

5 - SPECIAL REQUIREMENTS OF DEVELOPING COUNTRIES

5.1 The capacity of developing countries to implement the recommendations of this Code should be duly taken into account.

5.2 In order to achieve the objectives of this Code and to support its effective implementation, countries, relevant international organizations, whether governmental or

non-governmental, and financial institutions should give full recognition to the special circumstances and requirements of developing countries, including in particular the least-developed among them, and small island developing countries. States, relevant intergovernmental and non-governmental organizations and financial institutions should work for the adoption of measures to address the needs of developing countries, especially in the areas of financial and technical assistance, technology transfer, training and scientific cooperation and in enhancing their ability to develop their own fisheries as well as to participate in high seas fisheries, including access to such fisheries.

6 - GENERAL PRINCIPLES

6.1 States and users of living aquatic resources should conserve aquatic ecosystems. The right to fish carries with it the obligation to do so in a responsible manner so as to ensure effective conservation and management of the living aquatic resources.

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. Management measures should not only ensure the conservation of target species but also of species belonging to the same ecosystem or associated with or dependent upon the target species.

6.3 States should prevent overfishing and excess fishing capacity and should implement management measures to ensure that fishing effort is commensurate with the productive capacity of the fishery resources and their sustainable utilization. States should take measures to rehabilitate populations as far as possible and when appropriate.

6.4 Conservation and management decisions for fisheries should be based on the best scientific evidence available, also taking into account traditional knowledge of the resources and their habitat, as well as relevant environmental, economic and social factors. States should assign priority to undertake research and data collection in order to improve scientific and technical knowledge of fisheries including their interaction with the ecosystem. In recognizing the transboundary nature of many aquatic ecosystems, States should encourage bilateral and multilateral cooperation in research, as appropriate.

6.5 States and subregional and regional fisheries management organizations should apply a precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment, taking account of the best scientific evidence available. The absence of adequate scientific information should not be used as a reason for postponing or failing to take measures to conserve target species, associated or dependent species and non-target species and their environment.

6.6 Selective and environmentally safe fishing gear and practices should be further developed and applied, to the extent practicable, in order to maintain biodiversity and to conserve the population structure and aquatic ecosystems and protect fish quality. Where proper selective and environmentally safe fishing gear and practices exist, they should be recognized and accorded a priority in establishing conservation and management measures for fisheries. States and users of aquatic ecosystems should minimize waste, catch of non-target species, both fish and non-fish species, and impacts on associated or dependent

species.

6.7 The harvesting, handling, processing and distribution of fish and fishery products should be carried out in a manner which will maintain the nutritional value, quality and safety of the products, reduce waste and minimize negative impacts on the environment.

6.8 All critical fisheries habitats in marine and fresh water ecosystems, such as wetlands, mangroves, reefs, lagoons, nursery and spawning areas, should be protected and rehabilitated as far as possible and where necessary. Particular effort should be made to protect such habitats from destruction, degradation, pollution and other significant impacts resulting from human activities that threaten the health and viability of the fishery resources.

6.9 States should ensure that their fisheries interests, including the need for conservation of the resources, are taken into account in the multiple uses of the coastal zone and are integrated into coastal area management, planning and development.

6.10 Within their respective competences and in accordance with international law, including within the framework of subregional or regional fisheries conservation and management organizations or arrangements, States should ensure compliance with and enforcement of conservation and management measures and establish effective mechanisms, as appropriate, to monitor and control the activities of fishing vessels and fishing support vessels.

6.11 States authorizing fishing and fishing support vessels to fly their flags should exercise effective control over those vessels so as to ensure the proper application of this Code. They should ensure that the activities of such vessels do not undermine the effectiveness of conservation and management measures taken in accordance with international law and adopted at the national, subregional, regional or global levels. States should also ensure that vessels flying their flags fulfil their obligations concerning the collection and provision of data relating to their fishing activities.

6.12 States should, within their respective competences and in accordance with international law, cooperate at subregional, regional and global levels through fisheries management organizations, other international agreements or other arrangements to promote conservation and management, ensure responsible fishing and ensure effective conservation and protection of living aquatic resources throughout their range of distribution, taking into account the need for compatible measures in areas within and beyond national jurisdiction.

6.13 States should, to the extent permitted by national laws and regulations, ensure that decision making processes are transparent and achieve timely solutions to urgent matters. States, in accordance with appropriate procedures, should facilitate consultation and the effective participation of industry, fishworkers, environmental and other interested organizations in decision making with respect to the development of laws and policies related to fisheries management, development, international lending and aid.

6.14 International trade in fish and fishery products should be conducted in accordance with the principles, rights and obligations established in the World Trade Organization (WTO) Agreement and other relevant international agreements. States should ensure that their policies, programmes and practices related to trade in fish and fishery products do not result

in obstacles to this trade, environmental degradation or negative social, including nutritional, impacts.

6.15 States should cooperate in order to prevent disputes. All disputes relating to fishing activities and practices should be resolved in a timely, peaceful and cooperative manner, in accordance with applicable international agreements or as may otherwise be agreed between the parties. Pending settlement of a dispute, the States concerned should make every effort to enter into provisional arrangements of a practical nature which should be without prejudice to the final outcome of any dispute settlement procedure.

6.16 States, recognising the paramount importance to fishers and fishfarmers of understanding the conservation and management of the fishery resources on which they depend, should promote awareness of responsible fisheries through education and training. They should ensure that fishers and fishfarmers are involved in the policy formulation and implementation process, also with a view to facilitating the implementation of the Code.

6.17 States should ensure that fishing facilities and equipment as well as all fisheries activities allow for safe, healthy and fair working and living conditions and meet internationally agreed standards adopted by relevant international organizations.

6.18 Recognizing the important contributions of artisanal and small- scale fisheries to employment, income and food security, States should appropriately protect the rights of fishers and fishworkers, particularly those engaged in subsistence, small-scale and artisanal fisheries, to a secure and just livelihood, as well as preferential access, where appropriate, to traditional fishing grounds and resources in the waters under their national jurisdiction.

6.19 States should consider aquaculture, including culture-based fisheries, as a means to promote diversification of income and diet. In so doing, States should ensure that resources are used responsibly and adverse impacts on the environment and on local communities are minimized.

7 - FISHERIES MANAGEMENT

7.1 General

7.1.1 States and all those engaged in fisheries management should, through an appropriate policy, legal and institutional framework, adopt measures for the long-term conservation and sustainable use of fisheries resources. Conservation and management measures, whether at local, national, subregional or regional levels, should be based on the best scientific evidence available and be designed to ensure the long-term sustainability of fishery resources at levels which promote the objective of their optimum utilization and maintain their availability for present and future generations; short term considerations should not compromise these objectives.

7.1.2 Within areas under national jurisdiction, States should seek to identify relevant domestic parties having a legitimate interest in the use and management of fisheries resources and establish arrangements for consulting them to gain their collaboration in achieving responsible fisheries.

7.1.3 For transboundary fish stocks, straddling fish stocks, highly migratory fish stocks and high seas fish stocks, where these are exploited by two or more States, the States concerned, including the relevant coastal States in the case of straddling and highly migratory stocks, should cooperate to ensure effective conservation and management of the resources. This should be achieved, where appropriate, through the establishment of a bilateral, subregional or regional fisheries organization or arrangement.

7.1.4 A subregional or regional fisheries management organization or arrangement should include representatives of States in whose jurisdictions the resources occur, as well as representatives from States which have a real interest in the fisheries on the resources outside national jurisdictions. Where a subregional or regional fisheries management organization or arrangement exists and has the competence to establish conservation and management measures, those States should cooperate by becoming a member of such organization or a participant in such arrangement, and actively participate in its work.

7.1.5 A State which is not a member of a subregional or regional fisheries management organization or is not a participant in a subregional or regional fisheries management arrangement should nevertheless cooperate, in accordance with relevant international agreements and international law, in the conservation and management of the relevant fisheries resources by giving effect to any conservation and management measures adopted by such organization or arrangement.

7.1.6 Representatives from relevant organizations, both governmental and non-governmental, concerned with fisheries should be afforded the opportunity to take part in meetings of subregional and regional fisheries management organizations and arrangements as observers or otherwise, as appropriate, in accordance with the procedures of the organization or arrangement concerned. Such representatives should be given timely access to the records and reports of such meetings, subject to the procedural rules on access to them.

7.1.7 States should establish, within their respective competences and capacities, effective mechanisms for fisheries monitoring, surveillance, control and enforcement to ensure compliance with their conservation and management measures, as well as those adopted by subregional or regional organizations or arrangements.

7.1.8 States should take measures to prevent or eliminate excess fishing capacity and should ensure that levels of fishing effort are commensurate with the sustainable use of fishery resources as a means of ensuring the effectiveness of conservation and management measures.

7.1.9 States and subregional or regional fisheries management organizations and arrangements should ensure transparency in the mechanisms for fisheries management and in the related decision-making process.

7.1.10 States and subregional or regional fisheries management organizations and arrangements should give due publicity to conservation and management measures and ensure that laws, regulations and other legal rules governing their implementation are effectively disseminated. The bases and purposes of such measures should be explained to

users of the resource in order to facilitate their application and thus gain increased support in the implementation of such measures.

7.2 Management objectives

7.2.1 Recognizing that long-term sustainable use of fisheries resources is the overriding objective of conservation and management, States and subregional or regional fisheries management organizations and arrangements should, inter alia, adopt appropriate measures, based on the best scientific evidence available, which are designed to maintain or restore stocks at levels capable of producing maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing countries.

7.2.2 Such measures should provide inter alia that:

a. excess fishing capacity is avoided and exploitation of the stocks remains economically viable;

b. the economic conditions under which fishing industries operate promote responsible fisheries;

c. the interests of fishers, including those engaged in subsistence, small-scale and artisanal fisheries, are taken into account;

d. biodiversity of aquatic habitats and ecosystems is conserved and endangered species are protected;

e. depleted stocks are allowed to recover or, where appropriate, are actively restored;

f. adverse environmental impacts on the resources from human activities are assessed and, where appropriate, corrected; and

g. pollution, waste, discards, catch by lost or abandoned gear, catch of non-target species, both fish and non- fish species, and impacts on associated or dependent species are minimized, through measures including, to the extent practicable, the development and use of selective, environmentally safe and cost-effective fishing gear and techniques.

7.2.3 States should assess the impacts of environmental factors on target stocks and species belonging to the same ecosystem or associated with or dependent upon the target stocks, and assess the relationship among the populations in the ecosystem.

7.3 Management framework and procedures

7.3.1 To be effective, fisheries management should be concerned with the whole stock unit over its entire area of distribution and take into account previously agreed management measures established and applied in the same region, all removals and the biological unity and other biological characteristics of the stock. The best scientific evidence available should be used to determine, inter alia, the area of distribution of the resource and the area

through which it migrates during its life cycle.

7.3.2 In order to conserve and manage transboundary fish stocks, straddling fish stocks, highly migratory fish stocks and high seas fish stocks throughout their range, conservation and management measures established for such stocks in accordance with the respective competences of relevant States or, where appropriate, through subregional and regional fisheries management organizations and arrangements, should be compatible. Compatibility should be achieved in a manner consistent with the rights, competences and interests of the States concerned.

7.3.3 Long-term management objectives should be translated into management actions, formulated as a fishery management plan or other management framework.

7.3.4 States and, where appropriate, subregional or regional fisheries management organizations and arrangements should foster and promote international cooperation and coordination in all matters related to fisheries, including information gathering and exchange, fisheries research, management and development.

7.3.5 States seeking to take any action through a non-fishery organization which may affect the conservation and management measures taken by a competent subregional or regional fisheries management organization or arrangement should consult with the latter, in advance to the extent practicable, and take its views into account.

7.4 Data gathering and management advice

7.4.1 When considering the adoption of conservation and management measures, the best scientific evidence available should be taken into account in order to evaluate the current state of the fishery resources and the possible impact of the proposed measures on the resources.

7.4.2 Research in support of fishery conservation and management should be promoted, including research on the resources and on the effects of climatic, environmental and socio-economic factors. The results of such research should be disseminated to interested parties.

7.4.3 Studies should be promoted which provide an understanding of the costs, benefits and effects of alternative management options designed to rationalize fishing, in particular, options relating to excess fishing capacity and excessive levels of fishing effort.

7.4.4 States should ensure that timely, complete and reliable statistics on catch and fishing effort are collected and maintained in accordance with applicable international standards and practices and in sufficient detail to allow sound statistical analysis. Such data should be updated regularly and verified through an appropriate system. States should compile and disseminate such data in a manner consistent with any applicable confidentiality requirements.

7.4.5 In order to ensure sustainable management of fisheries and to enable social and economic objectives to be achieved, sufficient knowledge of social, economic and institutional factors should be developed through data gathering, analysis and research.

7.4.6 States should compile fishery-related and other supporting scientific data relating to

fish stocks covered by subregional or regional fisheries management organizations or arrangements in an internationally agreed format and provide them in a timely manner to the organization or arrangement. In cases of stocks which occur in the jurisdiction of more than one State and for which there is no such organization or arrangement, the States concerned should agree on a mechanism for cooperation to compile and exchange such data.

7.4.7 Subregional or regional fisheries management organizations or arrangements should compile data and make them available, in a manner consistent with any applicable confidentiality requirements, in a timely manner and in an agreed format to all members of these organizations and other interested parties in accordance with agreed procedures.

7.5 Precautionary approach
7.5.1 States should apply the precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment. The absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures.

7.5.2 In implementing the precautionary approach, States should take into account, inter alia, uncertainties relating to the size and productivity of the stocks, reference points, stock condition in relation to such reference points, levels and distribution of fishing mortality and the impact of fishing activities, including discards, on non-target and associated or dependent species, as well as environmental and socio-economic conditions.

7.5.3 States and subregional or regional fisheries management organizations and arrangements should, on the basis of the best scientific evidence available, inter alia, determine:

a. stock specific target reference points, and, at the same time, the action to be taken if they are exceeded; and

b. stock-specific limit reference points, and, at the same time, the action to be taken if they are exceeded; when a limit reference point is approached, measures should be taken to ensure that it will not be exceeded.

7.5.4 In the case of new or exploratory fisheries, States should adopt as soon as possible cautious conservation and management measures, including, inter alia, catch limits and effort limits. Such measures should remain in force until there are sufficient data to allow assessment of the impact of the fisheries on the long-term sustainability of the stocks, whereupon conservation and management measures based on that assessment should be implemented. The latter measures should, if appropriate, allow for the gradual development of the fisheries.

7.5.5 If a natural phenomenon has a significant adverse impact on the status of living aquatic resources, States should adopt conservation and management measures on an emergency basis to ensure that fishing activity does not exacerbate such adverse impact. States should also adopt such measures on an emergency basis where fishing activity presents a serious threat to the sustainability of such resources. Measures taken on an emergency basis should be temporary and should be based on the best scientific evidence

available.

7.6 Management measures

7.6.1 States should ensure that the level of fishing permitted is commensurate with the state of fisheries resources.

7.6.2 States should adopt measures to ensure that no vessel be allowed to fish unless so authorized, in a manner consistent with international law for the high seas or in conformity with national legislation within areas of national jurisdiction.

7.6.3 Where excess fishing capacity exists, mechanisms should be established to reduce capacity to levels commensurate with the sustainable use of fisheries resources so as to ensure that fishers operate under economic conditions that promote responsible fisheries. Such mechanisms should include monitoring the capacity of fishing fleets.

7.6.4 The performance of all existing fishing gear, methods and practices should be examined and measures taken to ensure that fishing gear, methods and practices which are not consistent with responsible fishing are phased out and replaced with more acceptable alternatives. In this process, particular attention should be given to the impact of such measures on fishing communities, including their ability to exploit the resource.

7.6.5 States and fisheries management organizations and arrangements should regulate fishing in such a way as to avoid the risk of conflict among fishers using different vessels, gear and fishing methods.

7.6.6 When deciding on the use, conservation and management of fisheries resources, due recognition should be given, as appropriate, in accordance with national laws and regulations, to the traditional practices, needs and interests of indigenous people and local fishing communities which are highly dependent on fishery resources for their livelihood.

7.6.7 In the evaluation of alternative conservation and management measures, their cost-effectiveness and social impact should be considered.

7.6.8 The efficacy of conservation and management measures and their possible interactions should be kept under continuous review. Such measures should, as appropriate, be revised or abolished in the light of new information.

7.6.9 States should take appropriate measures to minimize waste, discards, catch by lost or abandoned gear, catch of non-target species, both fish and non-fish species, and negative impacts on associated or dependent species, in particular endangered species. Where appropriate, such measures may include technical measures related to fish size, mesh size or gear, discards, closed seasons and areas and zones reserved for selected fisheries, particularly artisanal fisheries. Such measures should be applied, where appropriate, to protect juveniles and spawners. States and subregional or regional fisheries management organizations and arrangements should promote, to the extent practicable, the development and use of selective, environmentally safe and cost effective gear and techniques.

7.6.10 States and subregional and regional fisheries management organizations and

arrangements, in the framework of their respective competences, should introduce measures for depleted resources and those resources threatened with depletion that facilitate the sustained recovery of such stocks. They should make every effort to ensure that resources and habitats critical to the well-being of such resources which have been adversely affected by fishing or other human activities are restored.

7.7 Implementation

7.7.1 States should ensure that an effective legal and administrative framework at the local and national level, as appropriate, is established for fisheries resource conservation and fisheries management.

7.7.2 States should ensure that laws and regulations provide for sanctions applicable in respect of violations which are adequate in severity to be effective, including sanctions which allow for the refusal, withdrawal or suspension of authorizations to fish in the event of non-compliance with conservation and management measures in force.

7.7.3 States, in conformity with their national laws, should implement effective fisheries monitoring, control, surveillance and law enforcement measures including, where appropriate, observer programmes, inspection schemes and vessel monitoring systems. Such measures should be promoted and, where appropriate, implemented by subregional or regional fisheries management organizations and arrangements in accordance with procedures agreed by such organizations or arrangements.

7.7.4 States and subregional or regional fisheries management organizations and arrangements, as appropriate, should agree on the means by which the activities of such organizations and arrangements will be financed, bearing in mind, inter alia, the relative benefits derived from the fishery and the differing capacities of countries to provide financial and other contributions. Where appropriate, and when possible, such organizations and arrangements should aim to recover the costs of fisheries conservation, management and research.

7.7.5 States which are members of or participants in subregional or regional fisheries management organizations or arrangements should implement internationally agreed measures adopted in the framework of such organizations or arrangements and consistent with international law to deter the activities of vessels flying the flag of non-members or non-participants which engage in activities which undermine the effectiveness of conservation and management measures established by such organizations or arrangements.

7.8 Financial institutions

7.8.1 Without prejudice to relevant international agreements, States should encourage banks and financial institutions not to require, as a condition of a loan or mortgage, fishing vessels or fishing support vessels to be flagged in a jurisdiction other than that of the State of beneficial ownership where such a requirement would have the effect of increasing the likelihood of non-compliance with international conservation and management measures.

8 - FISHING OPERATIONS

8.1 Duties of all States

8.1.1 States should ensure that only fishing operations allowed by them are conducted within waters under their jurisdiction and that these operations are carried out in a responsible manner.

8.1.2 States should maintain a record, updated at regular intervals, on all authorizations to fish issued by them.

8.1.3 States should maintain, in accordance with recognized international standards and practices, statistical data, updated at regular intervals, on all fishing operations allowed by them.

8.1.4 States should, in accordance with international law, within the framework of subregional or regional fisheries management organizations or arrangements, cooperate to establish systems for monitoring, control, surveillance and enforcement of applicable measures with respect to fishing operations and related activities in waters outside their national jurisdiction.

8.1.5 States should ensure that health and safety standards are adopted for everyone employed in fishing operations. Such standards should be not less than the minimum requirements of relevant international agreements on conditions of work and service.

8.1.6 States should make arrangements individually, together with other States or with the appropriate international organization to integrate fishing operations into maritime search and rescue systems.

8.1.7 States should enhance through education and training programmes the education and skills of fishers and, where appropriate, their professional qualifications. Such programmes should take into account agreed international standards and guidelines.

8.1.8 States should, as appropriate, maintain records of fishers which should, whenever possible, contain information on their service and qualifications, including certificates of competency, in accordance with their national laws.

8.1.9 States should ensure that measures applicable in respect of masters and other officers charged with an offence relating to the operation of fishing vessels should include provisions which may permit, inter alia, refusal, withdrawal or suspension of authorizations to serve as masters or officers of a fishing vessel.

8.1.10 States, with the assistance of relevant international organizations, should endeavour to ensure through education and training that all those engaged in fishing operations be given information on the most important provisions of this Code, as well as provisions of relevant international conventions and applicable environmental and other standards that are essential to ensure responsible fishing operations.

8.2 Flag State duties

8.2.1 Flag States should maintain records of fishing vessels entitled to fly their flag and authorized to be used for fishing and should indicate in such records details of the vessels, their ownership and authorization to fish.

8.2.2 Flag States should ensure that no fishing vessels entitled to fly their flag fish on the high seas or in waters under the jurisdiction of other States unless such vessels have been issued with a Certificate of Registry and have been authorized to fish by the competent authorities. Such vessels should carry on board the Certificate of Registry and their authorization to fish.

8.2.3 Fishing vessels authorized to fish on the high seas or in waters under the jurisdiction of a State other than the flag State, should be marked in accordance with uniform and internationally recognizable vessel marking systems such as the FAO Standard Specifications and Guidelines for Marking and Identification of Fishing Vessels.

8.2.4 Fishing gear should be marked in accordance with national legislation in order that the owner of the gear can be identified. Gear marking requirements should take into account uniform and internationally recognizable gear marking systems.

8.2.5 Flag States should ensure compliance with appropriate safety requirements for fishing vessels and fishers in accordance with international conventions, internationally agreed codes of practice and voluntary guidelines. States should adopt appropriate safety requirements for all small vessels not covered by such international conventions, codes of practice or voluntary guidelines.

8.2.6 States not party to the Agreement to Promote Compliance with International Conservation and Management Measures by Vessels Fishing in the High Seas should be encouraged to accept the Agreement and to adopt laws and regulations consistent with the provisions of the Agreement.

8.2.7 Flag States should take enforcement measures in respect of fishing vessels entitled to fly their flag which have been found by them to have contravened applicable conservation and management measures, including, where appropriate, making the contravention of such measures an offence under national legislation. Sanctions applicable in respect of violations should be adequate in severity to be effective in securing compliance and to discourage violations wherever they occur and should deprive offenders of the benefits accruing from their illegal activities. Such sanctions may, for serious violations, include provisions for the refusal, withdrawal or suspension of the authorization to fish.

8.2.8 Flag States should promote access to insurance coverage by owners and charterers of fishing vessels. Owners or charterers of fishing vessels should carry sufficient insurance cover to protect the crew of such vessels and their interests, to indemnify third parties against loss or damage and to protect their own interests.

8.2.9 Flag States should ensure that crew members are entitled to repatriation, taking account of the principles laid down in the "Repatriation of Seafarers Convention (Revised), 1987, (No.166)".

8.2.10 In the event of an accident to a fishing vessel or persons on board a fishing vessel, the flag State of the fishing vessel concerned should provide details of the accident to the State of any foreign national on board the vessel involved in the accident. Such information should also, where practicable, be communicated to the International Maritime Organization.

8.3 Port State duties

8.3.1 Port States should take, through procedures established in their national legislation, in accordance with international law, including applicable international agreements or arrangements, such measures as are necessary to achieve and to assist other States in achieving the objectives of this Code, and should make known to other States details of regulations and measures they have established for this purpose. When taking such measures a port State should not discriminate in form or in fact against the vessels of any other State.

8.3.2 Port States should provide such assistance to flag States as is appropriate, in accordance with the national laws of the port State and international law, when a fishing vessel is voluntarily in a port or at an offshore terminal of the port State and the flag State of the vessel requests the port State for assistance in respect of non- compliance with subregional, regional or global conservation and management measures or with internationally agreed minimum standards for the prevention of pollution and for safety, health and conditions of work on board fishing vessels.

8.4 Fishing activities

8.4.1 States should ensure that fishing is conducted with due regard to the safety of human life and the International Maritime Organization International Regulations for Preventing Collisions at Sea, as well as International Maritime Organization requirements relating to the organization of marine traffic, protection of the marine environment and the prevention of damage to or loss of fishing gear.

8.4.2 States should prohibit dynamiting, poisoning and other comparable destructive fishing practices.

8.4.3 States should make every effort to ensure that documentation with regard to fishing operations, retained catch of fish and non-fish species and, as regards discards, the information required for stock assessment as decided by relevant management bodies, is collected and forwarded systematically to those bodies. States should, as far as possible, establish programmes, such as observer and inspection schemes, in order to promote compliance with applicable measures.

8.4.4 States should promote the adoption of appropriate technology, taking into account economic conditions, for the best use and care of the retained catch.

8.4.5 States, with relevant groups from industry, should encourage the development and implementation of technologies and operational methods that reduce discards. The use of fishing gear and practices that lead to the discarding of catch should be discouraged and the

use of fishing gear and practices that increase survival rates of escaping fish should be promoted.

8.4.6 States should cooperate to develop and apply technologies, materials and operational methods that minimize the loss of fishing gear and the ghost fishing effects of lost or abandoned fishing gear.

8.4.7 States should ensure that assessments of the implications of habitat disturbance are carried out prior to the introduction on a commercial scale of new fishing gear, methods and operations to an area.

8.4.8 Research on the environmental and social impacts of fishing gear and, in particular, on the impact of such gear on biodiversity and coastal fishing communities should be promoted.

8.5 Fishing gear selectivity

8.5.1 States should require that fishing gear, methods and practices, to the extent practicable, are sufficiently selective so as to minimize waste, discards, catch of non-target species, both fish and non-fish species, and impacts on associated or dependent species and that the intent of related regulations is not circumvented by technical devices. In this regard, fishers should cooperate in the development of selective fishing gear and methods. States should ensure that information on new developments and requirements is made available to all fishers.

8.5.2 In order to improve selectivity, States should, when drawing up their laws and regulations, take into account the range of selective fishing gear, methods and strategies available to the industry.

8.5.3 States and relevant institutions should collaborate in developing standard methodologies for research into fishing gear selectivity, fishing methods and strategies.

8.5.4 International cooperation should be encouraged with respect to research programmes for fishing gear selectivity, and fishing methods and strategies, dissemination of the results of such research programmes and the transfer of technology.

8.6 Energy optimization

8.6.1 States should promote the development of appropriate standards and guidelines which would lead to the more efficient use of energy in harvesting and post-harvest activities within the fisheries sector.

8.6.2 States should promote the development and transfer of technology in relation to energy optimization within the fisheries sector and, in particular, encourage owners, charterers and managers of fishing vessels to fit energy optimization devices to their vessels.

8.7 Protection of the aquatic environment

8.7.1 States should introduce and enforce laws and regulations based on the International

Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78).

8.7.2 Owners, charterers and managers of fishing vessels should ensure that their vessels are fitted with appropriate equipment as required by MARPOL 73/78 and should consider fitting a shipboard compactor or incinerator to relevant classes of vessels in order to treat garbage and other shipboard wastes generated during the vessel's normal service.

8.7.3 Owners, charterers and managers of fishing vessels should minimize the taking aboard of potential garbage through proper provisioning practices.

8.7.4 The crew of fishing vessels should be conversant with proper shipboard procedures in order to ensure discharges do not exceed the levels set by MARPOL 73/78. Such procedures should, as a minimum, include the disposal of oily waste and the handling and storage of shipboard garbage.

8.8 Protection of the atmosphere

8.8.1 States should adopt relevant standards and guidelines which would include provisions for the reduction of dangerous substances in exhaust gas emissions.

8.8.2 Owners, charterers and managers of fishing vessels should ensure that their vessels are fitted with equipment to reduce emissions of ozone depleting substances. The responsible crew members of fishing vessels should be conversant with the proper running and maintenance of machinery on board.

8.8.3 Competent authorities should make provision for the phasing out of the use of chlorofluorocarbons (CFCs) and transitional substances such as hydrochlorofluorocarbons (HCFCs) in the refrigeration systems of fishing vessels and should ensure that the shipbuilding industry and those engaged in the fishing industry are informed of and comply with such provisions.

8.8.4 Owners or managers of fishing vessels should take appropriate action to refit existing vessels with alternative refrigerants to CFCs and HCFCs and alternatives to Halons in fire fighting installations. Such alternatives should be used in specifications for all new fishing vessels.

8.8.5 States and owners, charterers and managers of fishing vessels as well as fishers should follow international guidelines for the disposal of CFCs, HCFCs and Halons.

8.9 Harbours and landing places for fishing vessels

8.9.1 States should take into account, inter alia, the following in the design and construction of harbours and landing places:

a. safe havens for fishing vessels and adequate servicing facilities for vessels, vendors and buyers are provided;

b. adequate freshwater supplies and sanitation arrangements should be provided;

c. waste disposal systems should be introduced, including for the disposal of oil, oily water and fishing gear;

d. pollution from fisheries activities and external sources should be minimized; and

e. arrangements should be made to combat the effects of erosion and siltation.

8.9.2 States should establish an institutional framework for the selection or improvement of sites for harbours for fishing vessels which allows for consultation among the authorities responsible for coastal area management.

8.10 Abandonment of structures and other materials

8.10.1 States should ensure that the standards and guidelines for the removal of redundant offshore structures issued by the International Maritime Organization are followed. States should also ensure that the competent fisheries authorities are consulted prior to decisions being made on the abandonment of structures and other materials by the relevant authorities.

8.11 Artificial reefs and fish aggregation devices

8.11.1 States, where appropriate, should develop policies for increasing stock populations and enhancing fishing opportunities through the use of artificial structures, placed with due regard to the safety of navigation, on or above the seabed or at the surface. Research into the use of such structures, including the impacts on living marine resources and the environment, should be promoted.

8.11.2 States should ensure that, when selecting the materials to be used in the creation of artificial reefs as well as when selecting the geographical location of such artificial reefs, the provisions of relevant international conventions concerning the environment and safety of navigation are observed.

8.11.3 States should, within the framework of coastal area management plans, establish management systems for artificial reefs and fish aggregation devices. Such management systems should require approval for the construction and deployment of such reefs and devices and should take into account the interests of fishers, including artisanal and subsistence fishers.

8.11.4 States should ensure that the authorities responsible for maintaining cartographic records and charts for the purpose of navigation, as well as relevant environmental authorities, are informed prior to the placement or removal of artificial reefs or fish aggregation devices.

9 - AQUACULTURE DEVELOPMENT

9.1 Responsible development of aquaculture, including culture-based fisheries, in areas

under national jurisdiction

9.1.1 States should establish, maintain and develop an appropriate legal and administrative framework which facilitates the development of responsible aquaculture.

9.1.2 States should promote responsible development and management of aquaculture, including an advance evaluation of the effects of aquaculture development on genetic diversity and ecosystem integrity, based on the best available scientific information.

9.1.3 States should produce and regularly update aquaculture development strategies and plans, as required, to ensure that aquaculture development is ecologically sustainable and to allow the rational use of resources shared by aquaculture and other activities.

9.1.4 States should ensure that the livelihoods of local communities, and their access to fishing grounds, are not negatively affected by aquaculture developments.

9.1.5 States should establish effective procedures specific to aquaculture to undertake appropriate environmental assessment and monitoring with the aim of minimizing adverse ecological changes and related economic and social consequences resulting from water extraction, land use, discharge of effluents, use of drugs and chemicals, and other aquaculture activities.

9.2 Responsible development of aquaculture including culture-based fisheries within transboundary aquatic ecosystems

9.2.1 States should protect transboundary aquatic ecosystems by supporting responsible aquaculture practices within their national jurisdiction and by cooperation in the promotion of sustainable aquaculture practices.

9.2.2 States should, with due respect to their neighbouring States, and in accordance with international law, ensure responsible choice of species, siting and management of aquaculture activities which could affect transboundary aquatic ecosystems.

9.2.3 States should consult with their neighbouring States, as appropriate, before introducing non-indigenous species into transboundary aquatic ecosystems.

9.2.4 States should establish appropriate mechanisms, such as databases and information networks to collect, share and disseminate data related to their aquaculture activities to facilitate cooperation on planning for aquaculture development at the national, subregional, regional and global level.

9.2.5 States should cooperate in the development of appropriate mechanisms, when required, to monitor the impacts of inputs used in aquaculture.

9.3 Use of aquatic genetic resources for the purposes of aquaculture including culture-based fisheries

9.3.1 States should conserve genetic diversity and maintain integrity of aquatic communities

and ecosystems by appropriate management. In particular, efforts should be undertaken to minimize the harmful effects of introducing non-native species or genetically altered stocks used for aquaculture including culture-based fisheries into waters, especially where there is a significant potential for the spread of such non-native species or genetically altered stocks into waters under the jurisdiction of other States as well as waters under the jurisdiction of the State of origin. States should, whenever possible, promote steps to minimize adverse genetic, disease and other effects of escaped farmed fish on wild stocks.

9.3.2 States should cooperate in the elaboration, adoption and implementation of international codes of practice and procedures for introductions and transfers of aquatic organisms.

9.3.3 States should, in order to minimize risks of disease transfer and other adverse effects on wild and cultured stocks, encourage adoption of appropriate practices in the genetic improvement of broodstocks, the introduction of non-native species, and in the production, sale and transport of eggs, larvae or fry, broodstock or other live materials. States should facilitate the preparation and implementation of appropriate national codes of practice and procedures to this effect.

9.3.4 States should promote the use of appropriate procedures for the selection of broodstock and the production of eggs, larvae and fry.

9.3.5 States should, where appropriate, promote research and, when feasible, the development of culture techniques for endangered species to protect, rehabilitate and enhance their stocks, taking into account the critical need to conserve genetic diversity of endangered species.

9.4 Responsible aquaculture at the production level

9.4.1 States should promote responsible aquaculture practices in support of rural communities, producer organizations and fish farmers.

9.4.2 States should promote active participation of fishfarmers and their communities in the development of responsible aquaculture management practices.

9.4.3 States should promote efforts which improve selection and use of appropriate feeds, feed additives and fertilizers, including manures.

9.4.4 States should promote effective farm and fish health management practices favouring hygienic measures and vaccines. Safe, effective and minimal use of therapeutants, hormones and drugs, antibiotics and other disease control chemicals should be ensured.

9.4.5 States should regulate the use of chemical inputs in aquaculture which are hazardous to human health and the environment.

9.4.6 States should require that the disposal of wastes such as offal, sludge, dead or diseased fish, excess veterinary drugs and other hazardous chemical inputs does not constitute a hazard to human health and the environment.

9.4.7 States should ensure the food safety of aquaculture products and promote efforts which maintain product quality and improve their value through particular care before and during harvesting and on-site processing and in storage and transport of the products.

ARTICLE 10 - INTEGRATION OF FISHERIES INTO COASTAL AREA MANAGEMENT

10.1 Institutional framework

10.1.1 States should ensure that an appropriate policy, legal and institutional framework is adopted to achieve the sustainable and integrated use of the resources, taking into account the fragility of coastal ecosystems and the finite nature of their natural resources and the needs of coastal communities.

10.1.2 In view of the multiple uses of the coastal area, States should ensure that representatives of the fisheries sector and fishing communities are consulted in the decision-making processes and involved in other activities related to coastal area management planning and development.

10.1.3 States should develop, as appropriate, institutional and legal frameworks in order to determine the possible uses of coastal resources and to govern access to them taking into account the rights of coastal fishing communities and their customary practices to the extent compatible with sustainable development.

10.1.4 States should facilitate the adoption of fisheries practices that avoid conflict among fisheries resources users and between them and other users of the coastal area.

10.1.5 States should promote the establishment of procedures and mechanisms at the appropriate administrative level to settle conflicts which arise within the fisheries sector and between fisheries resource users and other users of the coastal area.

10.2 Policy measures

10.2.1 States should promote the creation of public awareness of the need for the protection and management of coastal resources and the participation in the management process by those affected.

10.2.2 In order to assist decision-making on the allocation and use of coastal resources, States should promote the assessment of their respective value taking into account economic, social and cultural factors.

10.2.3 In setting policies for the management of coastal areas, States should take due account of the risks and uncertainties involved.

10.2.4 States, in accordance with their capacities, should establish or promote the establishment of systems to monitor the coastal environment as part of the coastal management process using physical, chemical, biological, economic and social parameters.

10.2.5 States should promote multi-disciplinary research in support of coastal area

management, in particular on its environmental, biological, economic, social, legal and institutional aspects.

10.3 Regional cooperation

10.3.1 States with neighbouring coastal areas should cooperate with one another to facilitate the sustainable use of coastal resources and the conservation of the environment.

10.3.2 In the case of activities that may have an adverse transboundary environmental effect on coastal areas, States should:

a. provide timely information and, if possible, prior notification to potentially affected States; and

b. consult with those States as early as possible.

10.3.3 States should cooperate at the subregional and regional level in order to improve coastal area management.

10.4 Implementation

10.4.1 States should establish mechanisms for cooperation and coordination among national authorities involved in planning, development, conservation and management of coastal areas.

10.4.2 States should ensure that the authority or authorities representing the fisheries sector in the coastal management process have the appropriate technical capacities and financial resources.

11 - POST-HARVEST PRACTICES AND TRADE

11.1 Responsible fish utilization

11.1.1 States should adopt appropriate measures to ensure the right of consumers to safe, wholesome and unadulterated fish and fishery products.

11.1.2 States should establish and maintain effective national safety and quality assurance systems to protect consumer health and prevent commercial fraud.

11.1.3 States should set minimum standards for safety and quality assurance and make sure that these standards are effectively applied throughout the industry. They should promote the implementation of quality standards agreed within the context of the FAO/WHO Codex Alimentarius Commission and other relevant organizations or arrangements.

11.1.4 States should cooperate to achieve harmonization, or mutual recognition, or both, of national sanitary measures and certification programmes as appropriate and explore possibilities for the establishment of mutually recognized control and certification agencies.

11.1.5 States should give due consideration to the economic and social role of the post-harvest fisheries sector when formulating national policies for the sustainable development and utilization of fishery resources.

11.1.6 States and relevant organizations should sponsor research in fish technology and quality assurance and support projects to improve post-harvest handling of fish, taking into account the economic, social, environmental and nutritional impact of such projects.

11.1.7 States, noting the existence of different production methods, should through cooperation and by facilitating the development and transfer of appropriate technologies, ensure that processing, transporting and storage methods are environmentally sound.

11.1.8 States should encourage those involved in fish processing, distribution and marketing to:

a. reduce post-harvest losses and waste;

b. improve the use of by-catch to the extent that this is consistent with responsible fisheries management practices; and

c. use the resources, especially water and energy, in particular wood, in an environmentally sound manner.

11.1.9 States should encourage the use of fish for human consumption and promote consumption of fish whenever appropriate.

11.1.10 States should cooperate in order to facilitate the production of value-added products by developing countries.

11.1.11 States should ensure that international and domestic trade in fish and fishery products accords with sound conservation and management practices through improving the identification of the origin of fish and fishery products traded.

11.1.12 States should ensure that environmental effects of post- harvest activities are considered in the development of related laws, regulations and policies without creating any market distortions.

11.2 Responsible international trade

11.2.1 The provisions of this Code should be interpreted and applied in accordance with the principles, rights and obligations established in the World Trade Organization (WTO) Agreement.

11.2.2 International trade in fish and fishery products should not compromise the sustainable

development of fisheries and responsible utilization of living aquatic resources.

11.2.3 States should ensure that measures affecting international trade in fish and fishery products are transparent, based, when applicable, on scientific evidence, and are in accordance with internationally agreed rules.

11.2.4 Fish trade measures adopted by States to protect human or animal life or health, the interests of consumers or the environment, should not be discriminatory and should be in accordance with internationally agreed trade rules, in particular the principles, rights and obligations established in the Agreement on the Application of Sanitary and Phytosanitary Measures and the Agreement on Technical Barriers to Trade of the WTO.

11.2.5 States should further liberalize trade in fish and fishery products and eliminate barriers and distortions to trade such as duties, quotas and non-tariff barriers in accordance with the principles, rights and obligations of the WTO Agreement.

11.2.6 States should not directly or indirectly create unnecessary or hidden barriers to trade which limit the consumer's freedom of choice of supplier or that restrict market access.

11.2.7 States should not condition access to markets to access to resources. This principle does not preclude the possibility of fishing agreements between States which include provisions referring to access to resources, trade and access to markets, transfer of technology, scientific research, training and other relevant elements.

11.2.8 States should not link access to markets to the purchase of specific technology or sale of other products.

11.2.9 States should cooperate in complying with relevant international agreements regulating trade in endangered species.

11.2.10 States should develop international agreements for trade in live specimens where there is a risk of environmental damage in importing or exporting States.

11.2.11 States should cooperate to promote adherence to, and effective implementation of relevant international standards for trade in fish and fishery products and living aquatic resource conservation.

11.2.12 States should not undermine conservation measures for living aquatic resources in order to gain trade or investment benefits.

11.2.13 States should cooperate to develop internationally acceptable rules or standards for trade in fish and fishery products in accordance with the principles, rights, and obligations established in the WTO Agreement.

11.2.14 States should cooperate with each other and actively participate in relevant regional and multilateral fora, such as the WTO, in order to ensure equitable, non-discriminatory trade in fish and fishery products as well as wide adherence to multilaterally agreed fishery conservation measures.

11.2.15 States, aid agencies, multilateral development banks and other relevant international organizations should ensure that their policies and practices related to the promotion of international fish trade and export production do not result in environmental degradation or adversely impact the nutritional rights and needs of people for whom fish is critical to their health and well being and for whom other comparable sources of food are not readily available or affordable.

11.3 Laws and regulations relating to fish trade

11.3.1 Laws, regulations and administrative procedures applicable to international trade in fish and fishery products should be transparent, as simple as possible, comprehensible and, when appropriate, based on scientific evidence.

11.3.2 States, in accordance with their national laws, should facilitate appropriate consultation with and participation of industry as well as environmental and consumer groups in the development and implementation of laws and regulations related to trade in fish and fishery products.

11.3.3 States should simplify their laws, regulations and administrative procedures applicable to trade in fish and fishery products without jeopardizing their effectiveness.

11.3.4 When a State introduces changes to its legal requirements affecting trade in fish and fishery products with other States, sufficient information and time should be given to allow the States and producers affected to introduce, as appropriate, the changes needed in their processes and procedures. In this connection, consultation with affected States on the time frame for implementation of the changes would be desirable. Due consideration should be given to requests from developing countries for temporary derogations from obligations.

11.3.5 States should periodically review laws and regulations applicable to international trade in fish and fishery products in order to determine whether the conditions which gave rise to their introduction continue to exist.

11.3.6 States should harmonize as far as possible the standards applicable to international trade in fish and fishery products in accordance with relevant internationally recognized provisions.

11.3.7 States should collect, disseminate and exchange timely, accurate and pertinent statistical information on international trade in fish and fishery products through relevant national institutions and international organizations.

11.3.8 States should promptly notify interested States, WTO and other appropriate international organizations on the development of and changes to laws, regulations and administrative procedures applicable to international trade in fish and fishery products.

12 - FISHERIES RESEARCH

12.1 States should recognize that responsible fisheries requires the availability of a sound scientific basis to assist fisheries managers and other interested parties in making decisions. Therefore, States should ensure that appropriate research is conducted into all aspects of

fisheries including biology, ecology, technology, environmental science, economics, social science, aquaculture and nutritional science. States should ensure the availability of research facilities and provide appropriate training, staffing and institution building to conduct the research, taking into account the special needs of developing countries.

12.2 States should establish an appropriate institutional framework to determine the applied research which is required and its proper use.

12.3 States should ensure that data generated by research are analyzed, that the results of such analyses are published, respecting confidentiality where appropriate, and distributed in a timely and readily understood fashion,in order that the best scientific evidence is made available as a contribution to fisheries conservation, management and development. In the absence of adequate scientific information, appropriate research should be initiated as soon as possible.

12.4 States should collect reliable and accurate data which are required to assess the status of fisheries and ecosystems, including data on bycatch, discards and waste. Where appropriate, this data should be provided, at an appropriate time and level of aggregation, to relevant States and subregional, regional and global fisheries organizations.

12.5 States should be able to monitor and assess the state of the stocks under their jurisdiction, including the impacts of ecosystem changes resulting from fishing pressure, pollution or habitat alteration. They should also establish the research capacity necessary to assess the effects of climate or environment change on fish stocks and aquatic ecosystems.

12.6 States should support and strengthen national research capabilities to meet acknowledged scientific standards.

12.7 States, as appropriate in cooperation with relevant international organizations, should encourage research to ensure optimum utilization of fishery resources and stimulate the research required to support national policies related to fish as food.

12.8 States should conduct research into, and monitor, human food supplies from aquatic sources and the environment from which they are taken and ensure that there is no adverse health impact on consumers. The results of such research should be made publicly available.

12.9 States should ensure that the economic, social, marketing and institutional aspects of fisheries are adequately researched and that comparable data are generated for ongoing monitoring, analysis and policy formulation.

12.10 States should carry out studies on the selectivity of fishing gear, the environmental impact of fishing gear on target species and on the behaviour of target and non-target species in relation to such fishing gear as an aid for management decisions and with a view to minimizing non-utilized catches as well as safeguarding the biodiversity of ecosystems and the aquatic habitat.

12.11 States should ensure that before the commercial introduction of new types of gear, a scientific evaluation of their impact on the fisheries and ecosystems where they will be used should be undertaken. The effects of such gear introductions should be monitored.

12.12 States should investigate and document traditional fisheries knowledge and technologies, in particular those applied to small-scale fisheries, in order to assess their application to sustainable fisheries conservation, management and development.

12.13 States should promote the use of research results as a basis for the setting of management objectives, reference points and performance criteria, as well as for ensuring adequate linkages between applied research and fisheries management.

12.14 States conducting scientific research activities in waters under the jurisdiction of another State should ensure that their vessels comply with the laws and regulations of that State and international law.

12.15 States should promote the adoption of uniform guidelines governing fisheries research conducted on the high seas.

12.16 States should, where appropriate, support the establishment of mechanisms, including, inter alia, the adoption of uniform guidelines, to facilitate research at the subregional or regional level and should encourage the sharing of the results of such research with other regions.

12.17 States, either directly or with the support of relevant international organizations, should develop collaborative technical and research programmes to improve understanding of the biology, environment and status of transboundary aquatic stocks.

12.18 States and relevant international organizations should promote and enhance the research capacities of developing countries, inter alia, in the areas of data collection and analysis, information, science and technology, human resource development and provision of research facilities, in order for them to participate effectively in the conservation, management and sustainable use of living aquatic resources.

12.19 Competent international organizations should, where appropriate, render technical and financial support to States upon request and when engaged in research investigations aimed at evaluating stocks which have been previously unfished or very lightly fished.

12.20 Relevant technical and financial international organizations should, upon request, support States in their research efforts, devoting special attention to developing countries, in particular the least-developed among them and small island developing countries.

Appendix D

MSC principles and Criteria for Sustainable Fishing

At the centre of the MSC is a set of *Principles and Criteria for Sustainable Fishing* which are used as a standard in a third party, independent and voluntary certification programme. These were developed by means of an extensive, international consultative process through which the views of stakeholders in fisheries were gathered.

These Principles reflect a recognition that a sustainable fishery should be based upon:
The maintenance and re-establishment of healthy populations of targeted species;
The maintenance of the integrity of ecosystems;
The development and maintenance of effective fisheries management systems, taking into account all relevant biological, technological, economic, social, environmental and commercial aspects; and
Compliance with relevant local and national local laws and standards and international understandings and agreements

The Principles and Criteria are further designed to recognise and emphasise that management efforts are most likely to be successful in accomplishing the goals of conservation and sustainable use of marine resources when there is full co-operation among the full range of fisheries stakeholders, including those who are dependent on fishing for their food and livelihood.

On a voluntary basis, fisheries which conform to these Principles and Criteria will be eligible for certification by independent MSC-accredited certifiers. Fish processors, traders and retailers will be encouraged to make public commitments to purchase fish products only from certified sources. This will allow consumers to select fish products with the confidence that they come from sustainable, well managed sources. It will also benefit the fishers and the fishing industry who depend on the abundance of fish stocks, by providing market incentives to work towards sustainable practices. Fish processors, traders and retailers who buy from certified sustainable sources will in turn benefit from the assurance of continuity of future supply and hence sustainability of their own businesses.

The MSC promotes equal access to its certification programme irrespective of the scale of the fishing operation. The implications of the size, scale, type, location and intensity of the fishery, the uniqueness of the resources and the effects on other ecosystems will be considered in every certification.

The MSC further recognises the need to observe and respect the long-term interests of people dependent on fishing for food and livelihood to the extent that it is consistent with ecological sustainability, and also the importance of fisheries management and operations being conducted in a manner consistent with established local, national, and international rules and standards as well as in compliance with the MSC Principles and Criteria.

Preamble

The following Principles & Criteria are intended to guide the efforts of the Marine Stewardship Council towards the development of sustainable fisheries on a global basis. They were developed assuming that a sustainable fishery is defined, for the purposes of MSC certification, as one that is conducted in such a way that:

it can be continued indefinitely at a reasonable level;
it maintains and seeks to maximise, ecological health and abundance,
it maintains the diversity, structure and function of the ecosystem on which it depends as well as the quality of its habitat, minimising the adverse effects that it causes;
it is managed and operated in a responsible manner, in conformity with local, national and international laws and regulations;
it maintains present and future economic and social options and benefits;
it is conducted in a socially and economically fair and responsible manner.

The Principles represent the overarching philosophical basis for this initiative in stewardship of marine resources: the use of market forces to promote behaviour which helps achieve the goal of sustainable fisheries. They form the basis for detailed Criteria which will be used to evaluate each fishery seeking certification under the MSC programme. Although the primary focus is the ecological integrity of world fisheries, the principles also embrace the human and social elements of fisheries. Their successful implementation depends upon a system which is open, fair, based upon the best information available and which incorporates all relevant legal obligations. The certification programme in which these principles will be applied is intended to give any fishery the opportunity to demonstrate its commitment to sustainable fishing and ultimately benefit from this commitment in the market place.

Scope

The scope of the MSC Principles and Criteria relates to marine fisheries activities up to but not beyond the point at which the fish are landed. However, MSC-accredited certifiers may be informed of serious concerns associated with post-landing practices. [274]

The MSC Principles and Criteria apply at this stage only to wildcapture fisheries (including, but not limited to shellfish, crustaceans and cephalopods). Aquaculture and the harvest of other species are not currently included.

Issues involving allocation of quotas and access to marine resources are considered to be beyond the scope of these Principles and Criteria.

[274] Other complementary certification programmes (e.g., ISO 14000) provide opportunities for documenting and evaluating impacts of post landing activities related to fisheries products certified to MSC standards. Constructive solutions to address these concerns through appropriate measures should be sought through dialogue with certification organisations and other relevant bodies.

PRINCIPLE 1

A fishery must be conducted in a manner that does not lead to over-fishing or depletion of the exploited populations and, for those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery [275]:

Intent:

The intent of this principle is to ensure that the productive capacities of resources are maintained at high levels and are not sacrificed in favour of short term interests. Thus, exploited populations would be maintained at high levels of abundance designed to retain their productivity, provide margins of safety for error and uncertainty, and restore and retain their capacities for yields over the long term.

Criteria:

The fishery shall be conducted at catch levels that continually maintain the high productivity of the target population(s) and associated ecological community relative to its potential productivity.
Where the exploited populations are depleted, the fishery will be executed such that recovery and rebuilding is allowed to occur to a specified level consistent with the precautionary approach and the ability of the populations to produce long-term potential yields within a specified time frame.
Fishing is conducted in a manner that does not alter the age or genetic structure or sex composition to a degree that impairs reproductive capacity.

PRINCIPLE 2:

Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends.

Intent:

The intent of this principle is to encourage the management of fisheries from an ecosystem perspective under a system designed to assess and restrain the impacts of the fishery on the ecosystem.

Criteria:

[275] **The sequence in which the Principles and Criteria appear does not represent a ranking of their significance, but is rather intended to provide a logical guide to certifiers when assessing a fishery. The criteria by which the MSC Principles will be implemented will be reviewed and revised as appropriate in light of relevant new information, technologies and additional consultations**

The fishery is conducted in a way that maintains natural functional relationships among species and should not lead to trophic cascades or ecosystem state changes.

The fishery is conducted in a manner that does not threaten biological diversity at the genetic, species or population levels and avoids or minimises mortality of, or injuries to endangered, threatened or protected species.

Where exploited populations are depleted, the fishery will be executed such that recovery and rebuilding is allowed to occur to a specified level within specified time frames, consistent with the precautionary approach and considering the ability of the population to produce long-term potential yields.

PRINCIPLE 3:

The fishery is subject to an effective management system that respects local, national and international laws and standards and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable.

Intent:

The intent of this principle is to ensure that there is an institutional and operational framework for implementing Principles 1 and 2, appropriate to the size and scale of the fishery.

A. Management System Criteria:

The fishery shall not be conducted under a controversial unilateral exemption to an international agreement.

The management system shall:

demonstrate clear long-term objectives consistent with MSC Principles and Criteria and contain a consultative process that is transparent and involves all interested and affected parties so as to consider all relevant information, including local knowledge. The impact of fishery management decisions on all those who depend on the fishery for their livelihoods, including, but not confined to subsistence, artisanal, and fishing-dependent communities shall be addressed as part of this process;

be appropriate to the cultural context, scale and intensity of the fishery – reflecting specific objectives, incorporating operational criteria, containing procedures for implementation and a process for monitoring and evaluating performance and acting on findings;

observe the legal and customary rights and long term interests of people dependent on fishing for food and livelihood, in a manner consistent with ecological sustainability;

incorporates an appropriate mechanism for the resolution of disputes arising within the system[276];

provide economic and social incentives that contribute to sustainable fishing and shall not operate with subsidies that contribute to unsustainable fishing;

act in a timely and adaptive fashion on the basis of the best available information using a precautionary approach particularly when dealing with scientific uncertainty;

incorporate a research plan – appropriate to the scale and intensity of the fishery – that addresses the information needs of management and provides for the dissemination of research results to all interested parties in a timely fashion;

require that assessments of the biological status of the resource and impacts of the fishery have been and are periodically conducted;

specify measures and strategies that demonstrably control the degree of exploitation of the resource, including, but not limited to:

setting catch levels that will maintain the target population and ecological community's high productivity relative to its potential productivity, and account for the non-target species (or size, age, sex) captured and landed in association with, or as a consequence of, fishing for target species;
identifying appropriate fishing methods that minimise adverse impacts on habitat, especially in critical or sensitive zones such as spawning and nursery areas;
providing for the recovery and rebuilding of depleted fish populations to specified levels within specified time frames;

mechanisms in place to limit or close fisheries when designated catch limits are reached; establishing no-take zones where appropriate;

contains appropriate procedures for effective compliance, monitoring, control, surveillance and enforcement which ensure that established limits to exploitation are not exceeded and specifies corrective actions to be taken in the event that they are.

B. Operational Criteria

Fishing operation shall:

make use of fishing gear and practices designed to avoid the capture of non-target species (and non-target size, age, and/or sex of the target species); minimise mortality of this catch where it cannot be avoided, and reduce discards of what cannot be released alive;

implement appropriate fishing methods designed to minimise adverse impacts on habitat, especially in critical or sensitive zones such as spawning and nursery areas;

[276] Outstanding disputes of substantial magnitude involving a significant number of interests will normally disqualify a fishery from certification.

not use destructive fishing practices such as fishing with poisons or explosives;

minimise operational waste such as lost fishing gear, oil spills, on-board spoilage of catch, etc.;

be conducted in compliance with the fishery management system and all legal and administrative requirements; and

assist and co-operate with management authorities in the collection of catch, discard, and other information of importance to effective management of the resources and the fishery.

Appendix E

INTER-AMERICAN CONVENTION FOR THE PROTECTION AND CONSERVATION OF SEA TURTLES

PREAMBLE

The Parties to this Convention:

Recognizing the rights and duties of States established in international law, as reflected in the United Nations Convention on the Law of the Sea of 10 December 1982, relating to the conservation and management of living marine resources;

Inspired by the principles contained in the 1992 Rio Declaration on Environment and Development;

Considering the principles and recommendations set forth in the Code of Conduct for Responsible Fishing adopted by the Conference of the Food and Agriculture Organization (FAO) of the United Nations in its 28th Session (1995);

Recalling that Agenda 21, adopted in 1992 by the United Nations Conference on Environment and Development, recognizes the need to protect and restore endangered marine species and to conserve their habitats;

Understanding that, in accordance with the best available scientific evidence, species of sea turtles in the Americas are threatened or endangered, and that some of these species may face an imminent risk of extinction;

Acknowledging the importance of having the States in the Americas adopt an agreement to address this situation through an instrument that also facilitates the participation of States from other regions interested in the worldwide protection and conservation of sea turtles, taking into account the widely migratory nature of these species;

Recognizing that sea turtles are subject to capture, injury or mortality as a direct or indirect result of human-related activities;

Considering that coastal zone management measures are indispensable for protecting populations of sea turtles and their habitats;

Recognizing the individual environmental, socio-economic and cultural conditions in the States in the Americas;

Recognizing that sea turtles migrate widely throughout marine areas and that their protection and conservation require cooperation and coordination among States within the range of such species;

Recognizing also the programs and activities that certain States are currently carrying out for the protection and conservation of sea turtles and their habitats;

Desiring to establish, through this Convention, appropriate measures for the protection and conservation of sea turtles throughout their range in the Americas, as well as their habitats;

Have agreed as follows:

ARTICLE I
DEFINITIONS

For the purposes of this Convention:

1. "Sea turtle" means any of the species listed in Annex I.

2. "Sea turtle habitats" means all those aquatic and terrestrial environments which sea turtles use at any stage of their life cycles.

3. "Parties" means States which have consented to be bound by this Convention and for which this Convention is in force.

4. "States in the Americas" means the States of North, Central and South America and the Caribbean Sea, as well as other States that have continental or insular territories in this region.

ARTICLE II
OBJECTIVE

The objective of this Convention is to promote the protection, conservation and recovery of sea turtle populations and of the habitats on which they depend, based on the best available scientific evidence, taking into account the environmental, socioeconomic and cultural characteristics of the Parties.

ARTICLE III
AREA OF APPLICATION OF THE CONVENTION

The area of application of this Convention (the Convention Area) comprises the land territory in the Americas of each of the Parties, as well as the maritime areas of the Atlantic Ocean, the Caribbean Sea and the Pacific Ocean, with respect to which each of the Parties exercises sovereignty, sovereign rights or jurisdiction over living marine

resources in accordance with international law, as reflected in the United Nations Convention on the Law of the Sea.

ARTICLE IV
MEASURES

1. Each Party shall take appropriate and necessary measures, in accordance with international law and on the basis of the best available scientific evidence, for the protection, conservation and recovery of sea turtle populations and their habitats:

a. In its land territory and in maritime areas with respect to which it exercises sovereignty, sovereign rights or jurisdiction included within the Convention Area; and

b. Notwithstanding Article III, with respect to vessels on the high seas that are authorized to fly its flag.

2. Such measures shall include:

a. The prohibition of the intentional capture, retention or killing of, and domestic trade in, sea turtles, their eggs, parts or products;

b. Compliance with the obligations established under the Convention on International Trade in Endangered Species of Wild Fauna and Flora relating to sea turtles, their eggs, parts or products;

c. To the extent practicable, the restriction of human activities that could seriously affect sea turtles, especially during the periods of reproduction, nesting and migration;

d. The protection, conservation and, if necessary, the restoration of sea turtle habitats and nesting areas, as well as the establishment of necessary restrictions on the use of such zones, including the designation of protected areas, as provided in Annex II;

e. The promotion of scientific research relating to sea turtles and their habitats, as well as to other relevant matters that will provide reliable information useful for the adoption of the measures referred to in this Article;

f. The promotion of efforts to enhance sea turtle populations, including research into the experimental reproduction, raising and reintroduction of sea turtles into their habitats in order to determine the feasibility of these practices to increase populations, without putting sea turtles at risk;

g. The promotion of environmental education and dissemination of information in an effort to encourage the participation of government institutions, nongovernmental organizations and the general public of each State, especially those communities that are involved in the protection, conservation and recovery of sea turtle populations and their habitats;

h. The reduction, to the greatest extent practicable, of the incidental capture, retention, harm or mortality of sea turtles in the course of fishing activities, through the

appropriate regulation of such activities, as well as the development, improvement and use of appropriate gear, devices or techniques, including the use of turtle excluder devices (TEDs) pursuant to the provisions of Annex III, and the corresponding training, in keeping with the principle of the sustainable use of fisheries resources; and

i. Any other measure, in accordance with international law, which the Parties deem appropriate to achieve the objective of this Convention.

3. With respect to such measures:

a. Each Party may allow exceptions to Paragraph 2(a) to satisfy economic subsistence needs of traditional communities, taking into account the recommendations of the Consultative Committee established pursuant to Article VII, provided that such exceptions do not undermine efforts to achieve the objective of this Convention. In making its recommendations, the Consultative Committee shall consider, inter alia, the status of the sea turtle populations in question, the views of any Party regarding such populations, impacts on such populations on a regional level, and methods used to take the eggs or turtles to cover such needs;

b. A Party allowing such an exception shall:

i) establish a management program that includes limits on levels of intentional taking;

ii) include in its Annual Report, referred to in Article XI, information concerning its management program;

c. Parties may establish, by mutual agreement, bilateral, subregional or regional management plans.

d. The Parties may, by consensus, approve exceptions to the measures set forth in paragraph 2(c)-(i) to account of circumstances warranting special consideration, provided that such exceptions do not undermine the objective of this Convention.

4. When an emergency situation is identified that undermines efforts to achieve the objective of this Convention and that requires collective action, the Parties shall consider the adoption of appropriate and adequate measures to address the situation. These measures shall be of a temporary nature and shall be based on the best available scientific evidence.

ARTICLE V
MEETINGS OF THE PARTIES

1. For the first three years following the entry into force of this Convention, the Parties shall hold an ordinary meeting at least once per year to consider matters

pertaining to the implementation of the provisions of this Convention. Following that, the Parties shall hold ordinary meetings at least once every two years.

2. The Parties may also hold extraordinary meetings when deemed necessary. These meetings shall be convened at the request of any Party, provided that such request is supported by a majority of the Parties.

3. At such meetings, the Parties shall, among other things:

a. Evaluate compliance with the provisions of this Convention;

b. Examine the reports and consider the recommendations of the Consultative Committee and the Scientific Committee, established pursuant to Articles VII and VIII, regarding the implementation of this Convention;

c. Adopt such additional conservation and management measures as deemed appropriate to achieve the objective of this Convention. If the Parties consider it necessary, such measures may be included in an Annex to this Convention;

d. Consider, and as necessary adopt, amendments to this Convention, in accordance with Article XXIV.

e. Review reports of the Secretariat, if established, relating to its budget and activities.

4. At their first meeting, the Parties shall adopt rules of procedure for meetings of the Parties as well as for meetings of the Consultative Committee and the Scientific Committee, and shall consider other matters relating to those committees.

5. Decisions reached at meetings of the Parties shall be adopted by consensus.

6. The Parties may invite other interested States, relevant international organizations, as well as the private sector, scientific institutions and nongovernmental organizations with recognized expertise in matters pertaining to this Convention to attend their meetings as observers and to participate in activities under this Convention.

ARTICLE VI
SECRETARIAT

1. At their first meeting, the Parties shall consider the establishment of a Secretariat with the following functions:

a. Providing assistance in convening and organizing the meetings specified in Article V;

b. Receiving from the Parties the annual reports referred to in Article XI and placing them at the disposal of the other Parties and of the Consultative Committee and the Scientific Committee;

c. Publishing and disseminating the recommendations and decisions adopted at the meetings of the Parties in accordance with rules of procedures adopted by the Parties;

d. Disseminating and promoting the exchange of information and educational materials regarding efforts undertaken by the Parties to increase public awareness of the need to protect and conserve sea turtles and their habitats, while maintaining the economic profitability of diverse artisanal, commercial, and subsistence fishing operations, as well as the sustainable use of fisheries resources. This information shall concern, inter alia:

(i) environmental education and local community involvement;

(ii) the results of research related to the protection and conservation of sea turtles and their habitats and the socioeconomic and environmental effects of the measures adopted pursuant to this Convention;

e. Seeking economic and technical resources to carry out research and to implement the measures adopted within the framework of this Convention;

f. Performing such other functions as the Parties may assign.

2. When deciding in this regard, the Parties shall consider the possibility of appointing the Secretariat from among competent international organizations that are willing and able to perform the functions provided for in this Article. The Parties shall determine the means of financing necessary to carry out the functions of the Secretariat.

ARTICLE VII
CONSULTATIVE COMMITTEE

1. At their first meeting, the Parties shall establish a Consultative Committee of Experts, hereinafter referred to as "the Consultative Committee", which shall be constituted as follows:

a. Each Party may appoint one representative to the Consultative Committee, who may be accompanied at each meeting by advisors;

b. The Parties shall also appoint, by consensus, three representatives with recognized expertise in matters pertaining to this Convention, from each of the following groups:

(i) the scientific community;
(ii) the private sector; and
(iii) nongovernmental organizations.

2. The functions of the Consultative Committee shall be to:

a. Review and analyze the reports referred to in Article XI, and any other information relating to the protection and conservation of populations of sea turtles and their habitats;

b. Solicit from any Party additional relevant information relating to the implementation of the measures set forth in this Convention or adopted pursuant thereto;

c. measures set forth in this Examine reports concerning the environmental, socio-economic and cultural impact on affected communities resulting from the Convention or adopted pursuant thereto;

d. Evaluate the efficiency of the different measures proposed to reduce the capture and incidental mortality of sea turtles, as well as the efficiency of different kinds of TEDs;

e. Present a report to the Parties on its work, including, as appropriate, recommendations on the adoption of additional conservation and management measures to promote the objective of this Convention;

f. Consider reports of the Scientific Committee;

g. Perform such other functions as the Parties may assign.

3. The Consultative Committee shall meet at least once a year for the first three years after the entry into force of the Convention, and after that in accordance with decisions made by the Parties.

4. The Parties may establish expert groups to advise the Consultative Committee.

ARTICLE VIII
SCIENTIFIC COMMITTEE

1. At their first meeting, the Parties shall establish a Scientific Committee which shall be comprised of representatives designated by the Parties and which shall meet, preferably, prior to the meetings of the Consultative Committee.

2. The functions of the Scientific Committee shall be to:

a. Examine and, as appropriate, conduct research on sea turtles covered by this Convention, including research on their biology and population dynamics;

b. Evaluate the environmental impact on sea turtles and their habitats of activities such as fishing operations and the exploitation of marine resources, coastal development, dredging, pollution, clogging of estuaries and reef deterioration, among other things, as well as the potential impact of activities undertaken as a result of exceptions to the measures allowed in accordance with this Convention;

c. Analyze relevant research conducted by the Parties;

d. Formulate recommendations for the protection and conservation of sea turtles and their habitats;

e. Make recommendations on scientific and technical matters at the request of any Party regarding specific matters related to this Convention;

f. Perform such other scientific functions as the Parties may assign.

ARTICLE IX
MONITORING PROGRAMS

1. During the year following the entry into force of this Convention, each Party shall establish, within its territory and in maritime areas with respect to which it exercises sovereignty, sovereign rights or jurisdiction, a program to ensure monitoring of the application of the measures to protect and conserve sea turtles and their habitats set forth in this Convention or adopted pursuant thereto. STATES CAN ENACT LEGISLATION TO PROTECT SEA TURTLES IN THEIR RESPECTIVE TERRITORY.

2. The program referred to in the preceding paragraph shall include, where appropriate, mechanisms and arrangements for the participation by observers designated by each Party or by agreement among them in monitoring activities.

3. In implementing the program, each Party may act with the support or cooperation of other interested States and relevant international organizations, as well as non-governmental organizations.

ARTICLE X
COMPLIANCE

Each Party shall ensure, within its territory and in maritime areas with respect to which it exercises sovereignty, sovereign rights or jurisdiction, effective compliance with measures to protect and conserve sea turtles and their habitats set forth in this Convention or adopted pursuant thereto.

ARTICLE XI
ANNUAL REPORTS

1. Each Party shall prepare an annual report, in accordance with Annex IV, on the programs it has adopted to protect and conserve sea turtles and their habitats, as well as any program it may have adopted relating to the utilization of these species in accordance with Article IV(3).

2. Each Party shall provide, either directly or through the Secretariat, if established, its annual report to the other Parties and to the Consultative and Scientific Committees at least 30

days prior to the next ordinary meeting of the Parties and shall also make such annual reports available to other States or interested entities that so request.

ARTICLE XII
INTERNATIONAL COOPERATION

1. The Parties shall promote bilateral and multilateral cooperative activities to further the objective of this Convention and, when they deem it appropriate, shall seek the support of relevant international organizations.

2. Such activities may include the training of advisors and educators; the exchange and training of technicians, sea turtle managers and researchers; the exchange of scientific information and educational materials; the development of joint research programs, studies, seminars and workshops; and other activities on which the Parties may agree.

3. The Parties shall cooperate to develop and to facilitate access to information and training regarding the use and transfer of environmentally sustainable technologies, consistent with the objective of this Convention. They shall also develop endogenous scientific and technological capabilities.

4. The Parties shall promote international cooperation in the development and improvement of fishing gear and techniques, taking into account the specific conditions of each region, in order to maintain the productivity of commercial fisheries and to ensure the protection, conservation and recovery of sea turtle populations.

5. The cooperative activities shall include rendering assistance, including technical assistance, to Parties that are developing States, in order to assist them in complying with their obligations under this Convention.

ARTICLE XIII
FINANCIAL RESOURCES

1. At their first meeting, the Parties shall assess the need for and possibilities of obtaining financial resources, including the establishment of a special fund for purposes such as the following:

a. Meeting the expenses that could be required for the potential establishment of the Secretariat, pursuant to Article VI;

b. Assisting the Parties that are developing States in fulfilling their obligations under this Convention, including providing access to the technology deemed most appropriate.

ARTICLE XIV
COORDINATION

The Parties shall seek to coordinate their activities under this Convention with relevant international organizations, whether global, regional or subregional.

ARTICLE XV
TRADE MEASURES

1. In implementing this Convention, the Parties shall act in accordance with the provisions of the Agreement establishing the World Trade Organization (WTO), as adopted at Marrakesh in 1994, including its annexes.

2. In particular, and with respect to the subject matter of this Convention, the Parties shall act in accordance with the provisions of the Agreement on Technical Barriers to Trade contained in Annex 1 of the WTO Agreement, as well as Article XI of the General Agreement on Tariffs and Trade of 1994.

3. The Parties shall endeavor to facilitate trade in fish and fishery products associated with this Convention, in accordance with their international obligations.

ARTICLE XVI
SETTLEMENT OF DISPUTES

1. Any Party may consult with one or more other Parties about any dispute related to the interpretation or application of the provisions of this Convention to reach a solution satisfactory to all parties to the dispute as quickly as possible.

2. If a dispute is not settled through such consultation within a reasonable period, the Parties in question shall consult among themselves as soon as possible in order to settle the dispute through any peaceful means they may decide upon in accordance with international law, including, where appropriate, those provided for in the United Nations Convention on the Law of the Sea.

ARTICLE XVII
RIGHTS OF THE PARTIES

1. No provision of this Convention may be interpreted in such a way as to prejudice or undermine the sovereignty, sovereign rights or jurisdiction exercised by any Party in accordance with international law.

2. No provision of this Convention, nor measures or activities performed in its implementation, may be interpreted in such a way as to allow a Party to make a claim, or to exercise sovereignty, sovereign rights or jurisdiction in contravention of international law.

ARTICLE XVIII
IMPLEMENTATION AT THE NATIONAL LEVEL

Each Party shall adopt measures in its respective national laws for implementation of the provisions of this Convention and to ensure effective compliance by means of policies, plans and programs for the protection and conservation of sea turtles and their habitats.

ARTICLE XIX
NON-PARTIES

1. The Parties shall encourage:

a. any eligible State to become party to this Convention;

b. any other State to become party to a complementary protocol as envisioned in Article XX.

2. The Parties shall also encourage all States not Party to this Convention to adopt laws and regulations consistent with the provisions of this Convention.

ARTICLE XX
COMPLEMENTARY PROTOCOLS

In order to promote the protection and conservation of sea turtles outside the Convention Area where these species also exist, the Parties should negotiate with States that are not eligible
to become party to this Convention a complementary protocol or protocols, consistent with the objective of this Convention, to which all interested States may become party.

ARTICLE XXI
SIGNATURE AND RATIFICATION

1. This Convention shall be open for signature at Caracas, Venezuela, by States in the Americas from December 1, 1996, until December 31, 1998.

2. This Convention is subject to ratification by the Signatories in accordance with their domestic laws and procedures. Instruments of ratification shall be deposited with the Government of Venezuela, which shall be the Depositary.

ARTICLE XXII
ENTRY INTO FORCE AND ACCESSION

1. This Convention shall enter into force ninety days after the date of deposit of the eighth instrument of ratification.

2. After the Convention has entered into force, it shall be open for accession by States in the Americas. This Convention shall enter into force for any such State on the date of its deposit of an instrument of accession with the Depositary.

ARTICLE XXIII

RESERVATIONS

Signature and ratification of, or accession to, this Convention may not be made subject to any reservation.

ARTICLE XXIV
AMENDMENTS

1. Any Party may propose an amendment to this Convention by providing the Depositary the text of a proposed amendment at least 60 days in advance of the next meeting of the Parties. The Depositary shall promptly circulate any amendment proposed to all the Parties.

2. Amendments to this Convention, adopted in accordance with the provisions of Article V(5), shall enter into force when the Depositary has received instruments of ratification from all Parties.

ARTICLE XXV
WITHDRAWAL

Any Party may withdraw from this Convention at any time after 12 months from the date on which this Convention entered into force with respect to that Party by giving written notice of withdrawal to the Depositary. The Depositary shall inform the other Parties of the withdrawal within 30 days of receipt of such notice. The withdrawal shall become effective six months after receipt of such notice.

ARTICLE XXVI
STATUS OF ANNEXES

1. The Annexes to this Convention are an integral part hereof. All references to this Convention shall be understood as including its Annexes.

2. Unless the Parties decide otherwise, the Annexes to this Convention may be amended, by consensus, at any meeting of the Parties. Unless otherwise agreed, amendments to an Annex shall enter into force for all Parties one year after adoption.

ARTICLE XXVII
AUTHENTIC TEXTS AND CERTIFIED COPIES

1. The English, French, Portuguese, and Spanish texts of this Convention are equally authentic.

2. The original texts of this Convention shall be deposited with the Government of Venezuela, which shall send certified copies thereof to the Signatory States and to the Parties hereto, and to the Secretary General of the United Nations for registration and publication, pursuant to Article 102 of the Charter of the United Nations.

In witness whereof, the undersigned, having been duly authorized by their respective governments, have signed this Convention.

Done at Caracas on this first day of December, 1996.

ANNEX I

SEA TURTLES*

1. Caretta caretta (Linnaeus, 1758)

Tortuga caguama, cabezuda, cahuama
Loggerhead turtle
Tortue caouanne
Cabell uda, mestill a

2. Chelonia mydas (Linnaeus, 1758), including populations of this species in the Eastern or American Pacific alternatively classified by specialists as Chelonia mydas agassizii (Carr, 1952), or as Chelonia agassizii (Bocourt, 1868).

Tortuga blanca, aruana, verde
Green sea turtle
Tortue verte
Tartaruga verde
Soepschildpad, krapŽ

Common alternate names in the Eastern Pacific:

Tortuga prieta
East Pacific green turtle, black turtle
Tortue verte du Pacifique est

3. Dermochelys coriacea (Vandelli, 1761)

Tortuga laœd, gigante, de cuero
Leatherback turtle
Tortue luth
Tartaruga gigante, de couro
Lederschildpad, aitkanti

Eretmochelys imbricata (Linnaeus, 1766)

Tortuga de carey
Hawksbill sea turtle
Tortue caret
Tartaruga de pente
KarŽt.

5. Lepidochelys kempii (Garman, 1880)

Tortuga lora
Kemp's ridley turtle

Tortue de Kemp

6. Lepidochelys olivacea (Eschscholtz, 1829)

Tortuga golfina
Olive ridley turtle
Tortue oliv‰tre
Tartaruga oliva
Warana

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* Due to the wide variety of common names, even within the same State, this list should not be considered exhaustive.

ANNEX II
PROTECTION AND CONSERVATION OF SEA TURTLE HABITATS

Each Party shall consider and may adopt, as necessary and in accordance with its laws, regulations, policies, plans and programs, measures to protect and conserve sea turtle habitats within its territory and in maritime areas with respect to which it exercises sovereignty, sovereign rights or jurisdiction, such as:

1. Requiring assessments of the environmental impact of marine and coastal development activities that may affect sea turtle habitats, including: dredging of canals and estuaries; construction of sea walls, piers and marinas; extraction of raw materials; operation of aquaculture facilities; siting of industrial facilities; use of reefs; deposit of dredged materials and trash; and other related activities;

2. Managing and, when necessary, regulating the use of beaches and coastal dunes with respect to the location and design of buildings, the use of artificial lighting and the transit of vehicles in nesting areas;

3. Establishing protected areas and taking other measures to regulate the use of areas where sea turtles nest or regularly occur, including permanent or temporary closures, modification of fishing gear, and, to the greatest extent practicable, restrictions on vessel traffic.

ANNEX III
USE OF TURTLE EXCLUDER DEVICES

1. "Shrimp trawl vessel" means any vessel used to catch shrimp species with trawl nets.

2. "Turtle Excluder Device" or "TED" means a device designed to increase the selectivity of shrimp trawl nets in order to reduce the incidental capture of sea turtles in shrimp fishing operations.

3. Each Party shall require shrimp trawl vessels subject to its jurisdiction that operate within the Convention Area to use recommended TEDs that are properly installed and functional.

4. Each Party, in accordance with the best available scientific evidence, may allow exceptions to use of TEDs as required in Paragraph 3 only in the following circumstances:

a. For shrimp trawl vessels whose nets are retrieved exclusively by manual rather than mechanical means, and shrimp vessels with trawl nets for which no TEDs have been developed. A Party allowing such exception shall adopt other measures to reduce the incidental mortality of sea turtles that are equally effective and that do not undermine efforts to achieve the objective of this Convention, such as limits on tow times, closed seasons and closed fishing areas where sea turtles occur.

b. For shrimp trawl vessels:

(i) exclusively using other trawl gear that has been demonstrated not to pose a risk of incidental mortality of sea turtles; or

(ii) operating under conditions where there is no likelihood of interaction with sea turtles;

provided that the Party allowing such exception provides to the other Parties, either directly or through the Secretariat, if established, documented scientific evidence demonstrating the lack of such risk or likelihood;

c. For shrimp trawl vessels conducting scientific research under a program approved by the Party;

d. Where the presence of algae, seaweed, debris, or other special conditions, temporary or permanent, make the use of TEDs impracticable in a specific area, provided that:

(i) a Party allowing this exception shall adopt other measures to protect sea turtles in the area in question, such as limits on tow times;

(ii) only in extraordinary emergency situations of a temporary nature may a Party allow this exception to apply to more than a small number of the vessels subject to its jurisdiction that would otherwise be required to use TEDs pursuant to this Annex;

(iii) a Party allowing this exception shall provide to the other Parties, either directly or through the Secretariat, if established, information concerning the special conditions and the number of shrimp trawl vessels operating in the area in question.

5. Any Party may comment upon information provided by any other Party pursuant to Paragraph 4. Where appropriate, the Parties shall seek guidance from

the Consultative Committee and the Scientific Committee to resolve differences of view. If the Consultative Committee so recommends, and the Parties agree, a Party that has allowed an exception pursuant to Paragraph 4 shall reconsider the allowance or extent of such an exception.

6. The Parties may, by consensus, approve other exceptions to the use of TEDs as required in Paragraph 3, in accordance with the best available scientific evidence and based on recommendations of the Consultative Committee and the Scientific Committee, to account for circumstances warranting special consideration, provided that such exceptions do not undermine efforts to achieve the objective of this Convention.

7. For the purposes of this Convention:

a. Recommended TEDs shall be those TEDs determined by the Parties, with advice from the Consultative Committee, to reduce the incidental capture of sea turtles in shrimp trawl fishing operations to the greatest extent practicable;

b. At their first meeting, the Parties shall develop an initial list of recommended TEDs, which they may modify at subsequent meetings;

c. Until the first meeting of the Parties, each Party shall determine, in accordance with its laws and regulations, which TEDs to require for use by shrimp trawl vessels subject to its jurisdiction in order to reduce the incidental capture of sea turtles in shrimp trawl fishing operations to the greatest extent practicable, based on consultations with other Parties.

8. At the request of any other Party or of the Consultative Committee or the Scientific Committee, each Party shall provide, either directly or through the Secretariat, if established, scientific information relevant to the achievement of the objective of this Convention.

ANNEX IV
ANNUAL REPORTS

The annual reports referred to in Article XI(1) shall include the following:

a. A general description of the program to protect and conserve sea turtles and their habitats, including any laws or regulations adopted to achieve the objective of this Convention;

b. **Any pertinent new laws or regulations adopted during the preceding year;**

c. A summary of actions taken, and the results thereof, to implement measures for the protection and conservation of sea turtles and their habitats, such as: operation of turtle camps; improvement and development of new fishing gear to reduce incidental sea turtle capture and mortality; scientific research, including marking, migration, and repopulation studies; environmental education; programs to establish and

manage protected areas; cooperative activities with other Parties; and any other activities designed to achieve the objective of this Convention;

d. **A summary of the actions taken to enforce its laws and regulations, including penalties imposed for violations;**

e. A detailed description of any exceptions allowed, in accordance with this Convention, during the preceding year, including monitoring and mitigation measures related to these exceptions, and, in particular, any relevant information on the number of turtles, nests, and eggs, as well as sea turtle habitats, affected by the allowance of these exceptions;

f. Any other information the Party may deem relevant.

Appendix F

MEMORANDUM OF UNDERSTANDING ON THE CONSERVATION AND MANAGEMENT OF MARINE TURTLES AND THEIR HABITATS OF THE INDIAN OCEAN AND SOUTH-EAST ASIA

THE SIGNATORY STATES,

Aware that the populations of the six species of marine turtles of the Region are listed as vulnerable, endangered or critically endangered on the IUCN - The World Conservation Union Red List of Threatened Species;

Noting that marine turtles have a priority for conservation action through their listing in the respective texts or appendices of the Convention on the Conservation of Migratory Species of Wild Animals (CMS), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the African Convention on the Conservation of Nature and Natural Resources, and the Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region and related protocols;

Recognising that the conservation of marine turtles and their habitats is specifically addressed in the Memorandum of Understanding on ASEAN Sea Turtle Conservation and Protection and the Memorandum of Agreement on the Turtle Islands Heritage Protected Area (TIHPA);

Recognising that other international instruments, including the United Nations Convention on Law of the Sea (UNCLOS), the FAO Code of Conduct for Responsible Fisheries, the International Convention for the Prevention of Pollution from Ships (MARPOL), and the Convention on Biological Diversity (CBD), are relevant to the conservation of marine turtles and their habitats;

Aware that existing regional organisations, including the Association of Southeast Asian Nations (ASEAN), the Regional Organisation for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA), and the Regional Organisation for the Protection of the Marine Environment (ROPME) operate programmes relevant to the conservation of marine turtles and their habitats;

Recognising that marine turtles migrate and disperse over vast distances, which make their survival dependent on their conservation over a wide area and in a wide range of marine and coastal habitats;

Acknowledging that human activities that may threaten marine turtle populations directly or indirectly include harvesting of eggs and turtles, inappropriate hatchery operations, destruction or modification of habitats, coastal development, pollution, fishing activities, mariculture and tourism;

Recognising the importance of integrating actions to conserve marine turtles and their habitats with activities related to the socio-economic development of the signatory States, including coastal development and maritime activities;

Acknowledging their shared responsibility for the conservation and management of marine turtle populations and their habitats;

Recognising the importance of involving all the States in the Region, as well as relevant inter-governmental, non-governmental and private sector organisations, in co-operative conservation and management of marine turtles and their habitats;

Noting the desirability of involving other States whose nationals or vessels conduct activities that may affect marine turtles of the Region, as well as States that may be in a position to contribute resources or expertise that may promote the implementation of this Memorandum of Understanding;

Recognising that concerted and coordinated action must be taken immediately to address the threats posed to marine turtle populations and their habitats;

Desiring to establish through this Memorandum of Understanding co-operative measures for the protection, conservation and management of marine turtles and their habitats throughout the Region;

AGREE to pursue the actions set forth in this Memorandum of Understanding, individually and collectively, to improve the conservation status of marine turtles and their habitats.

DEFINITIONS

1. Marine turtles means any of the species listed below:

Common name	Species
Loggerhead turtle	*Caretta caretta*
Olive ridley turtle	*Lepidochelys olivacea*
Green turtle	*Chelonia mydas*
Hawksbill turtle	*Eretmochelys imbricata*
Leatherback turtle	*Dermochelys coriacea*
Flatback turtle	*Natator depressus*

2. Habitats means all those aquatic and terrestrial environments which marine turtles use at any stage of their life cycles.

3. Region means all of the waters and coastal States of the Indian Ocean and South-East Asia and adjacent seas, extending eastwards to the Torres Strait.

4. Conservation status of marine turtles means the sum of the influences acting on a marine turtle species that may affect its long-term distribution and abundance.

5. Conservation status will be taken as favourable when:

population dynamics data indicate that the marine turtle species is maintaining itself on a long-term basis as a viable component of its ecosystems;

the range of the marine turtle species is neither currently being reduced, nor is likely to be reduced, on a long-term basis;

there is, and will be in the foreseeable future, sufficient habitat to maintain the population of the marine turtle species on a long-term basis; and

the distribution and abundance of the marine turtle species approach historic coverage and levels to the extent that potentially suitable ecosystems exist and to the extent consistent with wise wildlife management.

OBJECTIVE

The objective of this Memorandum of Understanding is to protect, conserve, replenish and recover marine turtles and their habitats, based on the best scientific evidence, taking into account the environmental, socio-economic and cultural characteristics of the signatory States.

ACTIONS

To achieve the objective of the Memorandum of Understanding, in a spirit of mutual understanding and co-operation, the signatory States will:

1. Co-operate closely in order to achieve and maintain a favourable conservation status for marine turtles and the habitats on which they depend.

2. Implement, subject to availability of necessary resources, the provisions of the Conservation and Management Plan which shall be annexed to this Memorandum of Understanding. The Conservation and Management Plan shall address: marine turtle habitat protection; management of direct harvesting and trade; reduction of threats, including fisheries bycatch; research and education; information exchange; and capacity building.

3. As necessary, review, formulate, revise and harmonise national legislation relevant to the conservation of marine turtles and their habitats, and make every effort to effectively implement such legislation.

4. Consider ratifying or acceding to those international instruments most relevant to the conservation of marine turtles and their habitats in order to enhance the legal protection of these species in the Region.

5. Establish a Secretariat which will assist communication, encourage reporting and facilitate activities between and among signatory States, sub-regional institutions and other interested States and organisations. The Secretariat shall transmit to all of the signatory States and to each of the sub-regional institutions created pursuant to paragraphs 5 and 6 of the Basic Principles, all of the national reports it receives, prepare a periodic overview of progress in implementation of the Conservation and Management Plan, and perform such other functions as may be assigned by the signatory States. The Secretariat shall be based in the office of an appropriate national, regional or international organisation, as agreed by consensus of the signatory States at their first meeting, after consideration of all offers received.

6. Establish an Advisory Committee to provide scientific, technical and legal advice to the signatory States, individually and collectively, on the conservation and management of marine turtles and their habitats in the Region. The signatory States may nominate for membership on the Committee individuals with expertise in the fields of marine turtle biology, marine resource management, coastal development, socio-economics, law, fisheries technology, and other relevant disciplines. The size, composition and terms of appointment of the Advisory Committee shall be determined by the signatory States at their first meeting.

7. Designate a competent national Authority to serve as a focal point for communication between signatory States and activities under this Memorandum of Understanding, and communicate the complete contact details of this Authority (and any changes thereto) to the Secretariat.

8. Provide to the Secretariat a regular report on their implementation of this Memorandum of Understanding, the periodicity of which will be determined at the first meeting of the signatory States.

9. Assess at their first meeting, the extent of the need for and possibilities of obtaining financial resources, including the establishment of a special fund for purposes such as:

meeting the expenses required for the operation of the Secretariat, the Advisory Committee and activities carried out under this Memorandum of Understanding; and

assisting the signatory States to carry out their responsibilities under this Memorandum of Understanding.

BASIC PRINCIPLES

This Memorandum of Understanding shall be considered an agreement under Article IV, paragraph 4, of the CMS. It shall take effect on the first day of the third month following its signature by the second State. It shall remain open for signature indefinitely for subsequent States, and will come into effect for those States on the first day of the third month after their signature.

Each signatory State will implement, within the limits of its jurisdiction, the Memorandum of Understanding with respect to:

its land territory in the Region;

marine areas in the Region under its national jurisdiction; and

vessels operating in the Region under its flag.

Implementation of this Memorandum of Understanding, including the Conservation and Management Plan, shall be assessed at regular meetings to be attended by representatives of each of the signatory States and persons or organisations technically qualified in, or relevant to, the conservation of marine turtles. Such meetings shall be convened by the Secretariat and shall be hosted by, and organised in collaboration with, one of the signatory States. Such meetings should be held annually, at least initially. The periodicity of these meetings may be reviewed and revised by consensus of the signatory States at any of their regular meetings.

This Memorandum of Understanding, including the Conservation and Management Plan, may be amended by consensus of the signatory States. When appropriate, the signatory States will consider amending this Memorandum of Understanding to make it legally binding.

Signatory States may establish, by mutual agreement, bilateral, sub-regional or regional management plans that are consistent with this Memorandum of Understanding.

Actions under this Memorandum of Understanding will be coordinated with signatory States, as well as with sub-regional institutions in the Region.

The original text of this Memorandum of Understanding, in the Arabic, English and French languages shall be deposited with the UNEP/CMS Secretariat which shall be the

Depositary. In the event of any discrepancies, the English version will be considered definitive.

Nothing in this Memorandum of Understanding shall preclude signatory States from implementing stronger national measures than those specified in the Conservation and Management Plan, in accordance with international law.

10. This Memorandum of Understanding shall remain in effect indefinitely, subject to the right of any signatory State to terminate its participation by providing one year's notice to the Depositary.