WORLD TRADE ORGANIZATION

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(98-1710)

UNITED STATES - IMPORT PROHIBITION OF CERTAIN SHRIMP AND SHRIMP PRODUCTS

REPORT OF THE PANEL

The report of the Panel on United States - Import prohibition of certain shrimp and shrimp products is being circulated to all Members, pursuant to the DSU. The report is being circulated as an unrestricted document from [27 April 1998] pursuant to the Procedures for the Circulation and Derestriction of WTO Documents (WT/L/160/Rev.1). Members are reminded that in accordance with the DSU only parties to the dispute may appeal a panel report, an appeal shall be limited to issues of law covered in the panel report and legal interpretations developed by the panel, and that there shall be no ex parte communications with the panel or Appellate Body concerning matters under consideration by the panel or Appellate Body.

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I. INTRODUCTION

1. In a letter dated 8 October 1996, India, Malaysia, Pakistan and Thailand, acting jointly, requested consultations with the United States pursuant to Article 4 of the Understanding on Rules and Procedures Governing the Settlement of Disputes ("DSU") and Article XXII:1 of the General Agreement on Tariffs and Trade 1994 ("GATT 1994") regarding the ban imposed upon importation of certain shrimp and shrimp products from the respective countries by the United States under Section 609 of U.S. Public Law 101-162[1] ("Section 609") and the "Revised Notice of Guidelines for Determining Comparability of Foreign Programs for the Protection of Turtles in Shrimp Trawl Fishing Operations"[2] (WT/DS58/1). Consultations were held on 19 November 1996 without resulting in a satisfactory solution of the matter.

2. In a communication dated 9 January 1997, Malaysia and Thailand requested the Dispute Settlement Body ("DSB") to establish a panel to examine, under Article XXIII:2 of GATT 1994 and Article 6 of the DSU, the partial embargo on the importation of certain shrimp and shrimp products implemented through a series of actions, including enactment of Section 609, promulgation of regulations and issuance of judicial decisions interpreting the law and regulations (WT/DS58/6). In a communication dated 30 January 1997, Pakistan made the same request to the DSB (WT/DS58/7). On 25 February 1997, the DSB established a panel pursuant to the request of Malaysia and Thailand. At the same meeting, the DSB established a panel in accordance with the request made by Pakistan. The DSB also agreed that the two panels would be consolidated into a single panel, pursuant to Article 9 of the DSU, with standard terms of reference (WT/DSB/M/29).

3. In a communication dated 25 February 1997, India requested the DSB to establish a panel pursuant to Article XXIII of GATT 1994 and 6 of the DSU (WT/DS58/8). At its meeting on 10 April 1997, the DSB established a panel in accordance with the request made by India. The DSB also agreed that this Panel would be consolidated with the Panel already established at the request of Malaysia, Thailand and Pakistan on 25 February 1997, pursuant to Article 9 of the DSU (WT/DSB/M/31).

4. The parties to the dispute agreed that the Panel should have standard terms of reference (Article 7 of the DSU):

> "To examine, in the light of the relevant provisions of the covered agreements cited by Malaysia and Thailand in document WT/DS58/6, Pakistan in document WT/DS58/7 and India in document WT/DS58/8, the matter referred to the DSB by Malaysia, Thailand, Pakistan and India in these documents and to make such findings as will assist the DSB in making the recommendations or in giving the rulings provided for in those agreements."

5. On 15 April 1997, the parties to the dispute agreed on the following composition of the Panel (WT/DS58/9):

Chairman:	Mr. Michael Cartland
Members:	Mr. Carlos Cozendey
	Mr. Kilian Delbrück

[1]Codified at 16 U.S.C. 1537 note, amending the Endangered Species Act of 1973, 16 U.S.C. § 1531 et seq.

[2]61 Fed. Reg. 17342, (19 April 1996).

6. Australia, Colombia, Costa Rica, Ecua dor, El Salvador, the European Communities, Guatemala, Hong Kong, Japan, Mexico, Nigeria, the Philippines, Senegal, Singapore, Sri Lanka and Venezuela reserved their third-party rights in accordance with Article 10 of the DSU.

7. The Panel met with the parties to the dispute on 17-19 June 1997 and on 15-16 September 1997. It met with the interested third parties on 19 June 1997.

8. In a communication dated 22 September 1997, the Chairman of the Panel informed the DSB that the Panel would not be able to issue its report within six months. The reasons for that delay are stated in document WT/DS58/10.

9. A meeting with scientific experts selected by the Panel, at which the parties were present, was held on 21 and 22 January 1998.

10. The Panel issued its interim report to the parties on 2 March 1998. The Panel issued its final report to the parties on 6 April 1998.

II. FACTUAL ASPECTS

1. Basic Facts About Sea Turtles

11. Seven species of sea turtles are currently recognized: the green turtle (Chelonia mydas), loggerhead (Caretta caretta), flatback (Natator depressus), hawksbill (Eretmochelys imbricata), leatherback (Dermochelys coriacea), olive ridley (Lepidochelys olivacea), and Kemp's ridley (Lepidochelys kempi).

12. Most species of sea turtles are distributed around the globe, in subtropical or tropical areas. Sea turtles spend their lives at sea, where they migrate between their foraging and their nesting grounds, but reproduce on land. Adult females nest in multi-year cycles, coming ashore to lay clutches of about 100 eggs in nests they dig on the beach. After about 50 to 60 days of incubation, the hatchlings dig their way out of the nest and head for the sea. Few survive and reach the age of reproduction (10-50 years, depending on the species). While maturing, they move through a variety of habitats. Little is known about the existence of sea turtles at seas.

13. Sea turtles have been adversely affected by human activity, either directly (sea turtles have been exploited for their meat, shells and eggs), or indirectly (incidental captures in fisheries, destruction of their habitats, pollution of the oceans). Presently, all species of sea turtles are included in Appendix I of the 1973 Convention on International Trade in Endangered Species ("CITES"). All species except the Australian flatback are listed in Appendices I and II of the 1979 Convention on Migratory Species of Wild Animals ("CMS") and appear in the IUCN Red List as endangered or vulnerable.

2. The US Endangered Species Act (ESA) and Related Legislation

14. All sea turtles that occur in US waters are listed as endangered or threatened species under the Endangered Species Act of 1973 ("ESA"). The ESA prohibits take of endangered sea turtles within the United States, within the US territorial sea, and the high seas, except as authorized by the Secretary of Commerce (for sea turtles in marine waters) or the Secretary of the Interior (for sea turtles on land).

15. Research programmes in the Gulf of Mexico and the Atlantic Ocean off the southeastern United States led to the conclusion that incidental capture and drowning of sea turtles by shrimp trawlers was the most significant source of mortality for sea turtles.[3] Within the context of a programme aiming at reducing the mortality of sea turtles in shrimp trawls, the National Marine Fisheries Service ("NMFS") developed turtle excluder devices ("TEDs"). A TED is grid trapdoor installed inside a trawling net that allows shrimp to pass to the back of the net while directing sea turtles and other unintentionally caught large objects out of the net. In 1983, NMFS began a formal programme to encourage shrimp fishermen to use TEDs voluntarily, so as to reduce the incidental catch and mortality of sea turtles associated with shrimp trawling. As part of the voluntary TED programme, NMFS delivered TEDs to volunteer shrimp fishermen and showed them how to properly install and use the TEDs. However, this voluntary programme did not turn out to be successful because an insufficient number of fishermen used TEDs on a regular basis.

[3]National Research Council, National Academy of Sciences, (1990), Decline of the Sea Turtles: Causes and Prevention, Washington D.C.

16. In 1987, the United States issued regulations, pursuant to the ESA, whereby all shrimp trawlers were required to use TEDs or tow time [4] restrictions in specified areas where there was a significant mortality of sea turtles in shrimp trawls. In offshore waters, all shrimp trawlers 25 feet and longer were required to use qualified TEDs and all shrimp trawlers smaller than 25 feet were required to restrict tow times to 90 minutes or less, or the use TEDs. In insho re waters, all shrimp trawlers were required to restrict tow times to 90 minutes or less. The rules, which became fully effective in 1990, further set forth specifications for TEDs, areas and seasons for which TEDs and/or tow times were required. They were subsequently modified so as to require the use of TEDs at all times and places where shrimp trawl fishing interacts in a significant way with sea turtles. Five species of sea turtles were identified as living in the areas concerned and, thus, falling under the regulations: loggerhead (Caretta caretta), Kemp's ridley (Lepidochelys kempi), green (Chelonia mydas), leatherback (Dermochelys coriacea) and hawksbill (Eretmochelys imbricata).[5]

17. In 1989, the United States enacted Section 609 of Public Law 101-102 [6] ("Section 609", see Annex I). Section 609 calls upon the US Secretary of State, in consultation with the US Secretary of Commerce, inter alia, to initiate negotiations for the development of bilateral or multilateral agreements for the protection and conservation of sea turtles, in particular with foreign governments of countries which are engaged in commercial fishing operations likely to affect adversely sea turtles. Section 609 further provides that shrimp harvested with technology that may adversely affect certain sea turtles may not be imported into the United States, unless the President certified to Congress by 1 May 1991, and annually thereafter, that the harvesting nation has a regulatory programme and an incidental take rate comparable to that of the United States, or that the particular fishing environment of the harvesting nation does not pose a threat to sea turtles.

18. In 1991, the United States issued guidelines ("1991 Guidelines") for assessing the comparability of foreign regulatory programmes with the US programme. To be found comparable a foreign nation's programme had to include, inter alia, a commitment to require all shrimp trawl vessels to use TEDs at all times (or reduce tow times for vessels under 25 feet), or, alternatively, a commitment to engage in a statistically reliable and verifiable scientific programme to reduce the mortality of sea turtles associated with shrimp fishing. Foreign nations were given three years for the complete phase-in of a comparable programme. The 1991 Guidelines also determined that the scope of Section 609 was limited to the wider Caribbean/western Atlantic region, and more specifically to the following countries: Mexico, Belize, Guatemala, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Trinidad and Tobago, Guyana, Suriname, French Guyana, and Brazil. It was also determined that the import restriction did not apply to aquaculture shrimp, whose harvesting does not adversely affect sea turtles. [7]

19. In 1993, the United States issued revised guidelines ("1993 Guidelines") providing that, to receive a certification in 1993, affected nations (those determined in the 1991 Guidelines) had to maintain their commitment to require TEDs on all commercial shrimp trawl vessels by 1 May 1994, and be able to demonstrate the use of TEDs on a significant number of shrimp trawl vessels by 1 May

[4]Tow time is the interval from trawl doors entering the water to trawl doors being removed from the water. Tow times were restricted to 90 minutes or less, period of time which is determined to result in fewer drowning of sea turtles in shrimp trawls. Tow time restrictions were an alternative to TEDs in some areas and for some categories of shrimp trawlers.

[5]52 Fed. Reg. 24244 (29 June 1987).

[6]Section 609 of Public Law 101-102, codified at 16 United States Code (U.S.C.) § 1537.

[7]56 Federal Register 1051 (10 January 1991).

1993.[8] To receive certification in 1994 and in subsequent years, affected nations were required to use TEDs on all their shrimp trawl vessels, subject to a limited number of exemptions. [9] The 1993 Guidelines eliminated the second option for certification which was contained in the 1991 Guidelines, i.e. the commitment to engage in a scientific programme to reduce the mortality of sea turtles in shrimp trawling.

20. In December 1995, the US Court of International Trade ("CIT") found that the 1991 and 1993 Guidelines were contrary to law in limiting the geographical scope of Section 609 to shrimp harvested in the wider Caribbean/western Atlantic region and directed the Department of State "to prohibit not later than May 1, 1996 the importation of shrimp or products of shrimp wherever harvested in the wild with commercial fishing technology which may affect adversely those species of sea turtles the conservation of which is the subject of regulations promulgated by the Secretary of Commerce ... ".[10] The Department of State requested the CIT to modify its judgement by allowing a one-year extension for the worldwide enforcement of Section 609. In its request, the States Department argued, inter alia, that many of the major shrimp exporting nations would likely be unable to implement a comparable programme by 1 May 1996. The CIT refused the requested extension and confirmed the 1 May 1996 deadline. [11]

21. In April 1996, the Department of State published revised guidelines ("1996 Guidelines") to comply with the CIT order of December 1995. [12] The new guidelines extended Section 609 to shrimp harvested in all foreign nations. The Department of State further determined that, as of 1 May 1996, all shipments of shrimp and shrimp products into the United States were to be accompanied by a declaration ("Shrimp Exporter's Declaration form") attesting that the shrimp or shrimp product in question was harvested "either under conditions that do not adversely affect sea turtles ... or in waters subject to the jurisdiction of a nation currently certified pursuant to Section 609".

22. The 1996 Guidelines define "shrimp or shrimp products harvested in conditions that does not affect sea turtles" to include: "(a) Shrimp harvested in an aquaculture facility ... ; (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 or by vessels using gear that, in accordance with the US programme ... would not require TEDs; (d) Species of shrimp, such as the pandalid species, harvested in areas in which sea turtles do not occur".

23. The 1996 Guidelines further determine the criteria for certifying a harvesting nation whose particular fishing environment "does not pose a threat of incidental taking of sea turtles in the course of commercial shrimp trawl harvesting" (Section 609 (b)(2)(C)) as follows: "(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

[8] 58 Federal Register 9015 (18 February 1993).

[9] In particular, vessels whose nets are retrieved exclusively by manual rather than mechanical means are not required to use TEDs, because it is considered that the lack of a mechanical retrieval system necessarily restricts tow times to a short duration, thereby limiting the threats of incidental drowning of sea turtles.

[10] Earth Island Institute v. Warren Christopher, 913 F. supp. 559 (CIT 1995).

[11] Earth Island Institute v. Warren Christopher, 922 Fed. Supp. 616 (CIT 1996).

[12] 61 Fed. Reg. 17342 (19 April 1996).

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".

24. The 1996 Guidelines also provide that "other certifications" can be granted by 1 May 1996, and annually thereafter, to other harvesting nations "only if the government of that nation has provided documentary evidence of the adoption of a regulatory program governing the incidental taking of sea turtles in the course of commercial shrimp trawl harvesting that is comparable to that of the United States and if the average take rate of that incidental taking by vessels of the harvesting nation is comparable to the average take rate of incidental taking of sea turtles by United States vessels in the course of such harvesting." For the purpose of these "other certifications", a regulatory programme shall include, inter alia, "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 ...". Moreover, the average incidental take rate "will be deemed comparable if the harvesting nation requires the use of TEDs in a manner comparable to that of the US program ...". The 1996 Guidelines contain additional considerations to be taken into account in determining the comparability of foreign programmes, such as "other measures the harvesting nation undertakes to protect sea turtles, including national programs to protect nesting beaches and other habitats, 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."

25. In October 1996, the CIT ruled that the embargo on shrimp and shrimp products enacted by Section 609 applied to all "shrimp or shrimp products harvested in the wild by citizens or vessels of nations which have not been certified". The Court found that the 1996 Guidelines were contrary to Section 609 when allowing, with a Shrimp Exporter's Declaration form, imports of shrimp from non-certified countries, if the shrimp was harvested with commercial fishing technology that did not adversely affect sea turtles.[13] The CIT later clarified that shrimp harvested by manual methods, which did not harm sea turtles, could continue to be imported even from countries which had not been certified under Section 609. The CIT also refused to postpone the worldwide enforcement of Section 609.[14]

26. As of 1 January 1998, the following 19 countries had been certified as having adopted programmes to reduce the incidental capture of sea turtles in shrimp fisheries comparable to the US programme: Belize, Brazil, Colombia, Costa Rica, Ecuador, El Salvador, Fiji, Guatemala, Guyana, Honduras, Indonesia, Mexico, Nicaragua, Nigeria, Panama, the People's Republic of China, Thailand, Trinidad and Tobago, and Venezuela. The following 16 nations have been certified as having shrimp fisheries in only cold waters where there was essentially no risk of taking sea turtles: Argentina, Belgium, Canada, Chile, Denmark, Finland, Germany, Iceland, Ireland, the Netherlands, New Zealand, Norway, Russia, Sweden, the United Kingdom and Uruguay. The following 8 countries have been certified on grounds that their fishermen only harvested shrimp using manual rather than mechanical means to retrieve nets: the Bahamas, Brunei, the Dominican Republic, Haiti, Jamaica, Oman, Peru and Sri Lanka.

[13] Earth Island Institute v. Warren Christopher, 942 Fed. Supp. 597 (CIT 1996). The US Administration has appealed this ruling to the US Court of Appeals for the Federal Circuit.

[14] Earth Island Institute v. Warren Christopher, 948 Fed. Supp. 1062 (CIT 1996).

III. MAIN ARGUMENTS

A. GENERAL

27. India, Malaysia, Pakistan and Thailand requested the Panel to find that Section 609 of US Public Law 101-162 ("Section 609") and its implementing measures:

(a) were contrary to Articles, XI:1 and XIII:1 of GATT 1994;
(b) were not covered by the exceptions under Article XX(b) and (g) of GATT 1994;
(c) nullified or impaired benefits accruing to India, Malaysia, Pakistan and Thailand within the meaning of Article XXIII:1(a) of GATT 1994.

India, Pakistan and Thailand additionally requested the Panel to find that Section 609 was contrary to Article I:1 of GATT 1994.

28. Accordingly, India requested the Panel to recommend that the United States remove its embargo immediately in order to comply with its obligations under the General Agreement on Tariffs and Trade. Malaysia, Pakistan and Thailand requested the Panel to recommend that the United States take all necessary steps to bring Section 609 and its implementing measures into conformity with its obligations under the General Agreement on Tariffs and Trade.

29. The United States requested the Panel to find that Section 609 and its implementing measures fell within the scope of Article XX, paragraphs (b) and (g) of GATT 1994.

B. CONSERVATION AND MANAGEMENT OF SEA TURTLES

1. Sea Turtle Conservation

30. India submitted it had a well-established history of protecting endangered species, including sea turtles. For many centuries, the essential harmony between the environment and man had been a central precept in Indian society, based on the fact that the continued replenishment of environmental resources was crucial for the very livelihood of a vast majority of Indians. The objectives of environmental protection were therefore deeply ingrained in Indians. Environmental resources had traditionally been safeguarded by their close association with the teachings of India's major religions. For example, the turtle itself was considered by many Indians to be an incarnation of the Divine. Fishermen were particularly careful not to catch turtles in their nets while fishing. As early as 1972, India had enacted the Wildlife Protection Act that imposed penalties for the capture, destruction or trade in endangered species, including certain sea turtles. Such measures had been extremely successful in ensuring the survival of endangered species. For example, the nesting population of olive ridley had increased over the past ten years in the Gahirmatha region, off India's Orissa coast, and every year approximately 600,000 olive ridley sea turtles nested in this area. The local government had banned fishing and shrimping within a radius of 20 kilometres around Gahirmatha to protect these turtles. In addition, 65,000 hectares in the Bhitarkanika and Gahirmatha regions had been declared a sea turtle sanctuary. [15] Other state governments had issued public notices reminding fishermen and others that catching or endangering sea turtles was illegal. Not only was the

[15] Ordered pursuant to Orissa Government Notification No. 7FY-SE(H)49/95-60-FARD, dated 1 January 1996.

Government of India establishing programmes to ensure the preservation of sea turtles, but the Government had also established programmes to ensure that the laws were enforced. For example, the Indian Coast Guard, Forest Department and Fisheries Department assisted the Wild Life Protection Department officials in monitoring the annual nesting period in the Orissa Coast.

31. India further submitted that many other governmental institutes and departments, as well as non-governmental organizations, continued to implement projects and conduct studies for th e conservation and preservation of sea turtles. The Central Marine Fisheries Research Institute in India monitored olive ridley turtles nesting in some regions during 1978 and 1986, and conducted an exhaustive study on the nesting population. The Institute also operated a hatchery for sea turtles in Madras, from which hatchlings were released at sea. The Institute was currently conducting a study on incidental catches of sea turtles during fishing in India. As part of India's ongoing efforts regarding the most efficient method of protecting sea turtles in its territory, two training programmes with shrimpers had been organized to discuss the fabrication and installation of TEDs. An Indian organization, CIFNET, even fabricated TEDs indigenously. Moreover, India was an active party of the CITES and had, accordingly, prohibited trade in endangered sea turtles. However, India could not find any provision in CITES which called for an import restriction on shrimp and shrimp products in order to protect and conserve sea turtles, nor could it find in CITES any reference to the TEDs as a "multilateral environmental standard" to be used for the protection and conservation of sea turtles. India did not accept the US assertion that the use of TEDs was the only way to keep sea turtles species found in India's territorial waters from becoming extinct; conservation programmes such as the ones undertaken by India were also essential for conserving sea turtles.

32. The protection of sea turtles was a challenging ta sk being shared by a large number of countries in a variety of ways. The use of TEDs was not the only way to keep sea turtle species found in India's territorial waters from becoming extinct; conservation programmes such as the ones undertaken by India were also essential in furthering the goal of sea turtle protection. While India shared the US concern over the plight of sea turtles and considered it important to ensure their survival, the importance of this goal did not justify the United States taking unilateral actions that infringed upon India' sovereign right to formulate its own environmental and conservation policies. India considered that since it had adequate measures in place to protect and preserve endangered species of sea turtles, there was no need for the United States to impose its own agenda on third parties through the use of far-reaching, extraterritorial measures such as the one imposed by Section 609. This action constituted an unacceptable interference in policies within India's sovereign jurisdiction.

33. Malaysia submitted that none of the Malaysian fishermen used TEDs. A significant amount of wild harvested shrimps were caught using traditional mechanisms (such as hand retrieval nets) which would not in anyway cause incidental catches of turtles. In Sabah and Sarawak in particular, shrimps were caught in locations that were far from turtle nesting grounds. Sabah and Sarawak had turtle protection laws, and fishing trawlers were not allowed to operate within designated areas where turtles mated and nested. In the East Coast of Peninsular Malaysia, the turtle nesting season occurred between April and October while the shrimp trawling season was from November to February. Along the west coast of Peninsular Malaysia, there was no shrimp trawling except along the Perak coast near Sigari which was a very limited area. Sarawak had been carrying out research on marine turtles particularly around the Turtle Islands since the 1930s. Studies done over the last 20 years had revealed a cyclical pattern of a good year followed by a poor year. Conservation efforts in Sarawak had begun in the early 1950s. It had been established by DNA fingerprinting that green turtles in Sarawak were distinct populations that did not mix with those of other countries implying that the conservation programme had managed to contribute to the survival of the turtle population. Moreover, the active enforcement of fishery laws by the Department of Fisheries had successfully

kept the trawlers away from the coastal and Turtle Island waters and the existing trawling operations had been successfully kept away from the migration routes of these turtles. While recognizing that the use of TEDs was a step in contributing to the conservation of turtles, Malaysia considered that it was just one of the many accepted methods for the conservation of turtles. The use of TED alone could not absolutely ensure the survival of turtles.

34. Malaysia had a comprehensive legal framework on the conservation and management of marine turtles which were under the jurisdiction of 13 individual states. The states' legislation on turtle protection had been enacted in 1932 and prohibited, inter alia, the capture, killing, injuring, possession or sale of turtles, collection of eggs, disturbing turtles during laying eggs, and provided for the establishment of turtle sanctuaries. Subsidiary legislation had also been enacted, such as the Customs (Prohibition of Export/Import) Orders of 1988, enforced specifically to ban the exports and imports of turtle eggs to and from all countries. At the federal level, the Fisheries Act 1985 prohibited the capture of marine turtles by any type of fishing methods. Enforcement of existing legislation within 2 nautical miles of marine parks would provide protection to nesting turtles in the area. An Order made under the Act in 1990 prohibited the use of driftnet with mesh sizes exceeding 25.4 cm in order to reduce turtle mortality.

35. Olive ridley, leatherback, hawksbill and green turtle were the four species of sea turtles found in Malaysia; the last three of them were at issue in this dispute. Malaysia had always been actively engaged in turtle conservation programmes aiming at reducing mortalities both on nesting beaches and at sea. They had been in place for more than 20 years and efforts were continuously undertaken to develop more effective conservation measures and improve upon existing ones. Organizations actively involved in the conservation of turtles included the Fisheries Department, local universities, NGOs (e.g. WWF and the Malaysian Society of Marine Sciences) and corporate bodies (as sponsors of conservation projects).[16] The conservation programmes included the following:

(a) Protection of turtle eggs by incubation programmes, involving in situ methods or protected beach hatcheries, and banning the commercial harvest and sale of eggs in certain areas (e.g. Sabah Turtle Islands and leatherbacks eggs in Terengganu). In other areas where the nesting beaches were extensive, turtle egg collection was licensed to the local inhabitants from whom the eggs were purchased for incubation in protected beach hatcheries. Efforts were continuously made to increase the proportion of eggs bought from licensed egg collectors for incubation. In Pulau Redang, where the nesting beaches were less extensive, in situ egg incubation was carried out by the Fisheries Department and turtle conservation biologists from the local university; this conservation programme aimed at incubating at least 70 per cent of the total egg production in the island, which was the most important nesting site for green turtles in Peninsular Malaysia.[17] Another example was seen in the Sarawak green turtle population, whose annual nesting density had declined from 1945 to the early 1960s, period during which fish and shrimp trawling did not exist. The decline had been attributed to over-exploitation of eggs. In the last thirty years (1960s to 1990s), conservation programmes in Sarawak concentrating on egg protection, at the exclusion of TEDs, allowed the nesting population to remain constant within the range of annual fluctuation characteristic with green turtle population. Therefore, in the case of the Sarawak population of green turtles, even in the absence of TEDs, the population had remained constant over a long period and had been sustained.

[16]E.H. Chan and H.C. Liew, (1991), Sea Turtles, The State of Nature Conservation in Malaysia, Malaysian Nature Society (R. Kiew ed.), pp. 120-134.

[17]E.H. Chan and H.C. Liew, (1995), In-situ Incubation of Green Turtle Eggs in Pulau Redang, Malaysia: Hope After Decades of Egg Exploitation, Proceedings of the International Congress of Chelonian Conservation, 6-10 July 1995, Gonfaron, France, pp. 68-71.

(b) Establishment of turtle sanctuaries/state parks in recognized turtle nesting areas to protect the nesting sites. This ensured that commercial development did not encroach upon the nesting beaches. Therefore the nesting beaches could remain pristine and not be subject to detrimental factors like beach lighting which adversely affected nesting turtles and hatchling orientation to the sea. The Turtle Island of Sabah was constituted as a State Park in 1984, after the Sabah State Government had compulsorily acquired the islands from private ownership. In 1988, after 22 years of 100 per cent egg protection, the nesting population of green turtles showed a reversal in its declining trend; nesting density reached a record in 1991. Annual nesting of 8,084 sea turtles in the period 1990-94 represented a threefold increase over annual nesting of 2,633 sea turtles recorded in the 1982-86 period. The Sabah Parks of Malaysia won the 1997 J. Paul Getty Wildlife Conservation Award for having released more than 4 million turtle hatchlings into the wild over the last 15 years and helped designate, together with the Philippines, the nine islands of the Turtle Islands Protected Heritage (TIPHA) as a single unit. This showed that a dedicated conservation programme concentrating mainly on egg protection could result in population recovery, and that Malaysia's domestic legislation was comprehensive enough for the protection and conservation of turtles, and further sought to prevent the national and international trade of sea turtles.

(c) Measures to protect sea turtles in their marine habitat during the nesting season. In marine parks where key nesting sites of green turtles occurred, fishing activities within a radius of two nautical miles surrounding the island or island groups was prohibited. Malaysian scientists had discovered that these measures were effective in protecting the turtles during the internesting periods since the turtles had been found not to venture beyond one nautical mile of the shoreline. [18] In 1991, an offshore sanctuary had been established in the Rantau Abang area - gazetted as Rantau Abang Fisheries Prohibited Area - to provide protection to leatherback turtles. Its boundaries had been determined by a scientific study using radio-telemetry techniques and conducted by local scientists in collaboration with US counterparts. [19] Fishing gear known to be detrimental to turtles, such as driftnets, trawlnets and fish traps had been banned in the restricted zone during the nesting season. [20] Finally, the use of large mesh driftnets along coastal areas had been banned across the nation to reduce the mortality of turtles in these areas.

(d) Because sea turtles were highly migratory going beyond the national boundaries of countries, Malaysia recognized that an effective management and conservation of turtles required the concerted and combined efforts of countries in the region concerned. Malaysia had cooperated with the Philippines in the launching of the Turtle Island Heritage Protected Area in 1996, to develop uniform conservation measures for the turtles on the islands. The same year, Malaysia hosted the first South East Asia Fisheries Development Centre (SEAFDEC) workshop on marine turtle research and conservation. Bilateral and regional turtle conservation programmes were currently being developed through the ASEAN Working Group for Nature Conservation. Malaysia was also a party to CITES and, accordingly, regulated strictly the import and export of marine turtles and their products. Its domestic legislation made an offence for any person to fish for, disturb, harass, catch or take any turtle. The law also applied to the Exclusive Economic Zone.

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[18]H.C. Liew and E.H. Chan, (1992), Biotelemetry of Green Turtles (Chelonia Mydas) in Pulau Redang, Malaysia, During the Internesting Period, Biotelemetry XII, 31 August-5 September, pp. 157-163.

[19]E.H. Chan, S.A. Eckert, H.C. Liew and K.L. Eckert, (1990), Locating the Internesting Habitats of Leatherback sea turtles (Dermochelys Coriacea) in Malaysian Waters Using Radio Telemetry, Biotelemetry XI, 29 August-4 September, Japan, pp. 133-138.

[20]E.H. Chan and H.C. Liew, (1995), An Offshore Sanctuary for the Leatherback Turtles in Rantau Abang, Malaysia , in J.I. Richardson and T.H. Richardson (compilers), Proceedings of the 12th Annual Workshop on Sea Turtle Biology and Conservation, NOAA Technical Memo. NMFS-SEFSC-361, pp. 18-20.

(e) Research programmes were undertaken by local universities and the Fisheries Department to provide scientific information for further development and enhancement of conservation programmes. For example, after the discovery that high incubation temperatures of beach hatcheries for leatherback turtles were producing biased sex ratios, the conservation programme had been modified and adjusted to incubate a proportion of the eggs under cooler temperatures so as to produce a balanced sex ratio output. The radio-tracking on leatherback turtles had been another study translated into conservation action, resulting in the establishment of the off-shore sanctuary in Rantau Abang.[21] To date, over 200 papers had been written on Malaysian sea turtles.[22] In 1984, Universiti Pertanian Malaysia, Kuala Terengganu (now Universiti Kolej, Universiti Putra Malaysia, Terengganu) had initiated a sea turtle research and conservation programme which had expanded to cover all aspects of the biology and ecology of sea turtles. Conservation and educational projects were also conducted. For example, the University maintained a longterm green and hawksbill turtle conservation project in Chagar Hutang, the major nesting beach for green turtles in Pulau Redang, Terengganu.[23] The conservation project protected turtle eggs through in situ incubation, and also included a tagging and nesting research programme.

(f) Public educational programmes on sea turtles. They included travelling exhibitions, production of educational kits, brochures and videos, as well as turtle camps for children. For instance, a turtle camp called "Kem Si Penyu" was organized: children from the Redang Village were brought to the beach to watch nesting turtles, listen to turtle stories, and attend fun art sessions facilitated by local artists. It was hoped that the children would develop a feeling of love for turtles.[24]

36. Malaysia considered that its commitment was evident by the actions taken both domestically and internationally in order to protect these endangered species from extinction. Conservation efforts were better achieved through bilateral or multilateral agreements rather than resorting to trade sanctions under the WTO.

37. Pakistan submitted that it shared the United States' concerns over the plight of sea turtles. However, the US requirement that TEDs be installed on Pakistan's commercial fishing vessels not only violated US obligations under the GATT, but was completely unnecessary given Pakistan's long history of protecting endangered species, including sea turtles. Pakistan stated that its culture embraced a traditional belief that it was sinful to kill sea turtles. In 1950, Pakistan had passed legislation to protect sea turtles by enacting the Imports and Exports (Control) Act (amended on 13 August 1996), which made it illegal to export protected species, including sea turtles and sea turtle by-products from Pakistan. In addition to laws protecting sea turtles, various public and private organizations in Pakistan were engaged in sea turtle protection programmes. Since 1979, Pakistan's Sindh Wildlife Department was engaged in sea turtle conservation programmes in conjunction with WWF and IUCN. The main objective of this programme was to protect sea turtles from extinction. In this regard, this programme had established enclosures on beaches to protect sea turtles and their

[21]Ibid.

[22]E.H. Chan (compiler), (1996), A Bibliography of Malaysian Sea Turtles and Terrapins, SEATRU (Sea Turtle Research Unit), Universiti Kolej, Universiti Putra Malaysia, Terengganu.

[23]E.H. Chan and H.C. Liew, (1995), In-situ Incubation of Green Turtle Eggs in Pulau Redang, Malaysia: Hope After Decades of Egg Exploitation, Proceedings of the International Congress of Chelonian Conservation, 6-10 July 1995, Gonfaron, France, pp. 68-71.

[24]The range of research and conservation projects conducted in the Universiti Kolej is described on the SEATRU website at URL<http://www.upmt.edu.my/seatru/>.

eggs from predators and poachers. The Sindh Wildlife Department had also engaged in turtle conservation training programmes designed to teach the public about the importance of protecting sea turtles. This programme had proven to be extremely effective in preserving and protecting sea turtles. It was estimated that between October 1979 and December 1995 more than 1.5 million sea turtle eggs had been protected and thousands of hatchlings had been released safely to the sea. The government of Pakistan was also instrumental in ensuring that sea turtle protection laws were enforced.

38. Pakistan considered that the protection of sea turtles was a challenging task tackled by a large number of countries in a variety of ways. Pakistan did not accept the US assertion that the use of TEDs was the only way to prevent the extinction of sea turtles and considered the US action to be an unacceptable interference in policies within Pakistan's sovereign jurisdiction. Programmes such as the ones undertaken by Pakistan were also essential in furthering the goal of sea turtle protection. Pakistan argued that, since it had adequate measures in place to protect and preserve endangered species of sea turtles, there was no need for the United States to impose its own agenda on third parties through the use of far-reaching, extra-territorial measures such as the one imposed by Section 609.

39. Thailand submitted that it had a long history of taking action to protect the four species of sea turtles (leatherback, green, hawksbill and olive ridley) within its jurisdiction. The Thai culture embraced a traditional belief that it was sinful to kill sea turtles. As early as 1947, the Fisheries Act had been passed prohibiting the catching, harvesting or harming of any sea turtle. This Act also specified that any accidentally caught turtles had to be released into the sea immediately. Further, the Act prohibited the collection or harm of sea turtle eggs on any beach in Thailand. In 1980, pursuant to authority granted under the Export and Import Act of 1979, the Ministry of Commerce had prohibited the exportation of the carcasses of six species of turtles, including the four species of sea turtles present in Thai waters, unless an export license was granted. In 1981, Thailand had further prohibited exports of the five species of live sea turtles (the four previously mentioned, plus olive ridley), unless an export license was granted. So far, no export licenses had been granted. Furthermore, in 1993 the Department of Fisheries had enacted a decree that imposed a prohibition on the importation of protected species of sea turtles.

40. In 1983, Thailand had ratified CITES, pursuant to which it had passed the Wildlife Preservation and Protection Act in 1992. Five species of sea turtles were among the protected wild animals listed in this legislation. The legislation prohibited the importation, exportation, and transitory movement of listed wild animals, or carcasses thereof, and subjected violators to severe penalties, including imprisonment and monetary fines. Three branches of the Government of Thailand were responsible for sea turtle restoration programmes: the Department of Fisheries, the Department of Forestry, and the Royal Thai Navy. The Department of Fisheries administered the Phuket Marine Biological Center, which run several conservation programmes. Sea turtle eggs were collected from nesting beaches and were taken to the center to be incubated. Additional sea turtle egg collection programmes were run by 5 Marine Fisheries Development Centers and 13 Coastal Aquaculture Development Centers within the Department of Fisheries. The goal of the restoration programmes administered by these institutions was to cultivate and release 5,000 baby sea turtles a year. In addition to these legislative initiatives, several conservation programmes had been adopted in Thailand. Since 1979, Her Royal Highness Queen Sirikit personally patronized the "Queen's Project on Sea Turtle Conservation". Her Majesty's patronage included the donation of private property to the Thai Department of Fisheries for use as a research station for sea turtle conservation. There were also several private conservation initiatives, including programmes administered by the Magic Eyes Foundation and the Siam Commercial Bank, which raised money to support efforts to rear and release baby sea turtles.

41. Thailand said it had also engaged in many educational projects aimed at protecting the natural habitat of sea turtles. Further, programmes involving hatching, nursing and releasing sea turtles to the sea had been initiated. In addition, approximately 20 research studies had been conducted since 1973 in order to learn more about indigenous sea turtles and to assist in formulation of policies to ensure their survival.[25] Significantly, during the course of a night trawled monitoring survey conducted from 1967 to 1996, there had been no observed incidental sea turtle kills in connection with shrimping.[26] The reason for this was that sea turtles inhabited coral reefs and sea grass beds within three kilometres of the shoreline where shrimp trawling was prohibited. While there had been a general decline in the population of nesting sea turtles in Thailand from 1950 to 1985, Thailand's conservation programme had ensured the survival of a sufficient stock of sea turtles to protect against their extinction. The measures that had achieved this result included a combination of strong protection for nesting beaches and the incubation and release programme. Thus, Thailand had found that measures other than the use of TEDs could be made effective in preserving sea turtles in Thai waters.

42. At the regional level, there had also been efforts initiated within ASEAN to reach a multilateral agreement on sea turtle conservation efforts. During the fifth meeting of the ASEAN Sectoral Working Group on Fisheries, held on 13-14 March 1997, Thailand had suggested that an agreement be negotiated within ASEAN with respect to sea turtles. The meeting had agreed to authorize Thailand to draft a Memorandum of Understanding ("MOU") setting forth the steps that could be taken jointly for the protection and conservation of sea turtles. In the Special Senior Officials meeting of the ASEAN, in May 1997, Ministers on Agriculture and Forestry had approved a draft MOU submitted by Thailand for consideration and agreed that the MOU would be finalized at the forthcoming meeting of the ASEAN Ministers on Agriculture and Forestry, in September 1997. The MOU committed its signatories to the protection, conservation, replenishment and recovery of sea turtles and of their habitats based upon the best available scientific evidence. The MOU also established a Technical Expert Working Group to prepare an ASEAN programme for Sea Turtle Conservation and Protection, coordinated by Malaysia. It also established mutual recognition of each nation's laws and regulations on this subject and called for harmonization of such laws and for the sympathetic consideration of such new laws that might be proposed by the working group.

43. The United States explained that since the 1970s, all species of sea turtles that occurred in waters subject to US jurisdiction had been listed as either endangered or threatened under the US Endangered Species Act of 1973 ("ESA"). In addition to requiring the use of TEDs since 1990, the United States had taken a wide variety of other steps to halt the decline and aid in the recovery of sea turtles. The US Federal Government had acquired some high density nesting beaches of loggerhead turtles and had placed them within the Archie Carr National Wildlife Refuge in Florida. One of the two largest loggerhead rookeries in the world was concentrated along the Atlantic beaches of central and southern Florida. A number of state and federal laws had been passed to protect the beach and dune habitat of nesting sea turtles, including the Coastal Barrier Resources Act of 1982 (Federal), Coastal Areas Management Act of 1974 (North Carolina), Beachfront Management Act of 1990 (South Carolina), Shore Assistance Act of 1979 (Georgia) and Coastal Zone Protection Act of 1985 (Florida). Progress was also being made by many states, counties and towns in preventing disorientation and misorientation of hatchlings caused by beach lighting. Finally, the United States had established and maintained the world's most long-standing beach management programme to

[25]Sea Turtle Conservation in Thailand, (1996), Department of Fisheries, Ministry of Agriculture and Cooperatives, Thailand.

[26]The Night-Trawled Monitoring Surveys During 1967-1996, (1997), Marine Fisheries Division, Department of Fisheries.

reduce out-of-balance depredation and destruction of nests by natural predators, such as raccoons and feral predators.

44. The United States had also actively supported international efforts to protect sea turtles. The United States was a party to CITES and had, accordingly, prohibited international trade in sea turtles, their eggs, parts and products. The United States had also funded training for sea turtle researchers and beach protection efforts in such countries as Costa Rica, El Salvador and Mexico. Since 1978, the United States worked cooperatively with Mexico to protect the beach at Rancho Nuevo, Mexico, the principal nesting beach of Kemp's ridley sea turtles, and had provided financial support for the protection of other nesting beaches throughout Mexico. Since the early 1990s, the United States also gave financial assistance to trainees from Latin American who attended the Caribbean Conservation Corporation's sea turtle training programme in Tortuguero, Costa Rica. The United States had provided significant financial support for the sea turtle conservation programmes of the IUCN (World Conservation Union) and for a wide range of comparable initiatives. Some of these efforts had begun to yield encouraging results. For loggerhead sea turtles, for instance, the combined strategy of requiring TEDs and protecting nesting beaches had led to a noticeable increase in at least some subpopulations. For instance, adult loggerheads of the South Florida Subpopulation (the largest loggerhead nesting assemblage in the Atlantic and one of the two largest in the world) was showing significant increases in recent years, indicating that the population was recovering. [27] The US-Mexican joint effort undertaken at Rancho Nuevo had led to encouraging increases in the number of Kemp's ridley nests. [28]

45. The United States considered that the incidental mortality of sea turtles in shrimp trawl nets constituted the largest cause of human-induced sea turtle mortality. Other measures to protect sea turtles did not address this problem and had not succeeded on their own. The United States Government required shrimp trawl vessels that operated in waters subject to US jurisdiction in which there was a likelihood of intercepting sea turtles to use TEDs at all times. Any effective programme to allow the recovery of these endangered species had to include the required use of TEDs by shrimp trawl vessels that operated in areas and at times where there was a likelihood of intercepting sea turtles. Other measures to protect sea turtles, including the protection of nesting beaches, bans on the harvest of sea turtle eggs, and "headstarting" [29] baby sea turtles, had proven ineffective in increasing the number of large juvenile and adult sea turtles. Increasing the numbers of large juvenile and adult sea turtles was necessary because they were responsible for the greatest contribution to the growth of sea turtle populations - the reproductive value [30] of a large juvenile or adult sea turtle was 584 times that of a hatchling sea turtle. [31] Of the measures available to protect sea turtles, only the required use of TEDs effectively protected large juvenile and adult sea turtles, and was, therefore, of exponentially greater value to sea turtle populations overall. Even if the other measures could achieve a 100 per cent survival rate for baby sea turtles in their first year, scientific models showed that they were unlikely to have a significant effect on sea turtle populations due to the extremely high mortality of

[27]Report of the Marine Turtle Expert Working Group, (1996), Status of the Loggerhead Turtle Population (Caretta caretta) in the Western North Atlantic, pp. 13-14.

[28]Report of the Marine Turtle Expert Working Group, (1996), Kemp's Ridley Sea (Lepidochelys kempii) Turtle Status Report, pp. 3-4.

[29]"Headstarting" is a technique where sea turtle eggs are taken from the wild and incubated. The hatchlings are raised in captivity, usually for approximately one year, then released into the wild.

[30]The "reproductive value" is the relative contribution of an individual of a given age to the growth rate of the population. (National Research Council, National Academy of Sciences, (1990), Decline of the Sea Turtles: Causes and Prevention, Washington D.C., p. 49).

[31]National Research Council, National Academy of Sciences (1990), Decline of Sea Turtles: Causes and Prevention, p. 70; S. Heppel, et. al., Population Model Analysis for the Loggerhead Sea Turtle (Caretta caretta) in Queensland, (1996), Wildlife Research, No. 23, p. 143.

sea turtles before they reached breeding age [32]; scientists currently estimated that it took between 1,000 and 10,000 eggs to produce a single adult female.

46. The United States argued that, while the measures adopted by the complainants to protect sea turtles were laudable (although, with the exception of Thailand, none required the use of TEDs), they had not prevented drastic declines in sea turtle populations in the waters of these countries. For example, the leatherback sea turtle population in Terengganu, Malaysia had experienced a 95 per cent decline in the number of nesting turtles since 1956. [33] The number of eggs laid by green, olive ridley and hawksbill sea turtles in Terengganu had also declined an estimated 52-85 per cent since the late 1950s.[34] Sea turtle populations in the Gulf of Thailand had been seriously depleted. [35] Comparable declines throughout that region of the world were well-documented. [36] As explained above, even if the other measures taken by the complainants to protect sea turtles were effectively enforced [37], without the required use of TEDs, they would be insufficient to allow sea turtle populations in that region of the world to recover. Actually, none of these measures had prevented the drastic declines of sea turtles in the complainants' waters. Their conservation measures had not been shown to have any significant effect on the number of sea turtles that survived to adulthood and reproduced.

47. The United States submitted that scientists recognized the limitations of measures such as nest protection and "head-starting" that only protected sea turtle eggs and hatchlings. A recent study commissioned by Thailand's Office of Natural Resource Conservation noted the "generally accepted scientific opinion that head-starting is not a valid conservation method (at the very least, its value has yet to be demonstrated)". [38] Similarly, IUCN (World Conservation Union) found that the "conservation of eggs and hatchlings, without concurrent conservation of the older life stages, may be of limited value". [39] Finally, Dr. Deborah Crouse, a conservation biologist with special expertise in sea turtle biology, had found as the result of her doctoral research on loggerhead sea turtles that "nest protection, by itself, was not sufficient to stop the decline of threatened loggerhead sea turtle

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[32] S. Heppel, et. al., (1996), Population Model Analysis for the Loggerhead Sea Turtle (Caretta caretta) in Queensland, Wildlife Research No. 23, p. 563.

[33] C.J. Limpus, (1993), Current Declines in Southeast Asian Turtle Populations, in Proceedings of the Thirteenth Annual Symposium of Sea Turtle Biology and Conservation, p. 89.

[34] J.A. Mortimer, (1990), Marine Turtle Conservation in Malaysia, in Proceedings of the Tenth Annual Symposium of Sea Turtle Biology and Conservation, p. 21.

[35] N.V.C. Polunin and N.S. Nuitja, (rev'd ed. 1995), Sea Turtle Populations of Indonesia and Thailand, in K.A. Bjorndal, Biology and Conservation of Sea Turtles, p. 359.

[36] IUCN (World Conservation Union), (1997), A Marine Turtle Conservation Strategy and Action Plan for the Northern Indian Ocean.

[37] The United States observed that the degree of enforcement of existing sea turtle conservation measures in South Asia was called into question. Despite bans on the harvesting of sea turtle eggs, for example, "near-total egg harvest still characterizes the green turtle nesting populations of Indonesia, Thailand and Terengganu, Malaysia". C.J. Limpus, (rev'd ed. 1995), Global Overview of the Status of Marine Turtles: A 1995 Viewpoint, in K.A. Bjorndal, Biology and Conservation of Sea Turtles, p. 606; C.S. Kar and S. Bhaskar, (1995), Status of Sea Turtles in the Eastern Indian Ocean, in K.A. Bjorndal, Biology and Conservation of Sea Turtles, p. 365.

[38] S. Settle, (1995), Status of Nesting Populations of Sea Turtles in Thailand and Their Conservation, in Marine Turtle Newsletter, No. 68, p. 10.

[39] IUCN (World Conservation Union), (1995), A Global Strategy for the Conservation of Marine Turtles, p. 2. The United States noted that IUCN's finding was based on scientific population modelling. Ibid.

populations, much less to recover them while human-induced mortality (due to drowning in shrimp trawls) of juveniles and adult turtles continued unabated". [40]

48. According to the United States, such measures were of some value when taken in conjunction with other measures that protected older sea turtles, such as the required use of TEDs. However, certain nations, and in particular India, Malaysia and Pakistan, had not yet adopted effective measures to protect older sea turtles. One reason the governments maintained such measures could be that the measures protecting eggs and hatchlings appeared, on first blush, to produce impressive results. Consider, for example, the hatchery programme that Malaysia maintained. According to a scientific analysis of this programme: "between 1961 and 1986, an average of about 33,000 eggs were incubated each year with a 50 per cent rate of hatching success. This seems like a large number of hatchlings. But, if current estimates are correct that 1,000 to 10,000 eggs are needed to produce a single adult female, then the hatchery programme would only have produced about 3 to 34 new adult females each year. Considering that 33,000 eggs represents fewer than 2 per cent of the eggs laid annually in the late 1950s, perhaps we should not be too surprised to note a population decline of more than 98 per cent". [41] The example of Malaysia's programme showed the inherent flaw in any sea turtle conservation programme that relied solely on measures to protect eggs and hatchlings. Where older sea turtles were subject to high rates of mortality, including in shrimp trawl fisheries, the protection of eggs and hatchlings alone was very unlikely to allow decimated populations of sea turtles to recover. Indeed, "it is not clear whether egg protection efforts will ultimately prevent marine turtle extinction". [42]

49. The United States asserted that proh ibitions on the intentional killing of sea turtles, which the complainants had put in place, had not succeeded. These measures, which were in place for many years, had not prevented the decimation of sea turtle populations in South Asia or permitted their recovery, even in areas where the prohibitions had been effectively enforced. For example, a recent report on The Status of Marine Turtles in Thailand noted that: "The populations of green and hawksbill turtles [nesting at Khram Island in the Gulf of Thailand] have declined significantly, even though their nesting areas are controlled by the Thai navy since [a] long time ago. As the area is completely protected, very few fishermen or poachers can enter the island. Thus the reduction of the number of sea turtle nests [is] caused by heavy fishing activities in the Gulf areas". [43] In short, despite complainants' claims to the contrary, most populations of sea turtles that spent at least some portion of their lives in waters subject to their jurisdiction were still declining, and shrimp trawl fishing remained a primary (and easily avoidable) reason for these declines. [44] While the complainants reported that

[40]Statement of Deborah Crouse, Ph.D., 23 July 1997, paragraph 3, document submitted to the Panel by the United States.

[41]J.A. Mortimer, (1990), Marine Turtle Conservation in Malaysia, in Proceedings of the Tenth Annual Symposium of Sea Turtle Biology and Conservation, p. 21. The United States noted that this article also detailed a number of grave difficulties with sea turtle hatchery programmes that impeded their effectiveness. Other studies noted the extensive problems of hatchery programmes: Country Report for Malaysia, presented at the Northern Indian Ocean Sea Turtle Workshop and Strategic Planning Session, 13-18 January 1997, in Bhubaneswar, Orissa, India, p. 4 ("Poor hatchling success may result from poor handling and hatchery management techniques. Personnel running the hatcheries sometimes do not receive sufficient training or understand the technical requirements for improved hatchling success"); Statement of Deborah Crouse, Ph.D., 23 July 1997, paragraph 12, document submitted to the Panel by the United States ("These programmes have been costly, fraught with logistic problems, and are still considered highly experimental").

[42]D.T. Crouse, et. al., (1987), A Stage-Based Model for Loggerhead Sea Turtles and Implications for Conservation, Ecology, Vol. 68, No. 5, pp. 1412-23. The United States noted that there was also a real question about the ability of some nations to enforce rules to protect sea turtle eggs on nesting beaches. According to one report, "near-total egg harvest still characterizes the green turtle nesting populations of ... Thailand and Terengganu in Malaysia. ... A large proportion of [hawksbill turtle] eggs appear to be harvested in Malaysia (Terengganu) [and] Thailand." C.J. Limpus, (rev'd ed. 1995), Global Overview of the Status of Marine Turtles: A 1995 Viewpoint, in Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., p. 606.

[43]S. Chantrapoornsyl, (1997), Status of Marine Turtles in Thailand, Phuket Marine Biological Center, p. 1.

[44]Statement of Deborah Crouse, Ph.D., 23 July 1997, paragraphs 6-8, document submitted by the United States to the Panel.

they had taken some measures to protect sea turtles, "the efforts of these protection measures will be negated and wasted if young turtles are released into waters where trawlers operate without TEDs. In such waters, many will be captured and drowned each year and few will survive the two decades or more they will require to mature and reproduce". [45]

50. Regarding Malaysia, the United States argued that, whatever measures Malaysia had taken, all four species were endangered in Malaysia. [46] Moreover, Malaysia neglected to mention the populations of sea turtles that nested in Terengganu and elsewhere in Malaysia, particularly the populations of leatherback sea turtles. Numerous scientific reports documented the disastrous declines of these sea turtles. Calculated on the basis of egg production data supplied by the Terengganu State Fisheries department, the population of leatherbacks nesting there had suffered "a greater than 95 per cent decline in nesting turtles over 40 years since 1956". [47] In terms of the number of egg clutches laid by female leatherbacks in Terengganu, the decline was just as precipitous: "In the late 1950s, an estimated 2,000 female leatherbacks laid about 10,000 egg clutches annually. Since then, the population has declined steadily and catastrophically. During the 1989 season, fewer than 200 egg clutches were laid". [48] The most recent available data, supplied in the Country Report for Malaysia cited above, confirmed that these trends had continued. The report noted that, in the 1950's, this population had been celebrated as the only remaining leatherback population of importance in the world". However, the numbers of these sea turtles "have declined significantly with present nestings representing only 2 per cent of numbers then ... The Terengganu leatherback population may be lost within a decade or two". [49] Unfortunately, the same trends were present in other species of sea turtles that nested in Terengganu. The olive ridleys that nested there had declined from "possibly thousands annually" to "approximately 20 per year in the early 1990s". [50] Moreover, the Country Report for Malaysia cited above found that the population trends of all the major rookeries of Malaysia "indicated a general declining trend, some to near extinction", including those in Sarawak. [51] The only rookeries reported as not experiencing these declines were those at the Sabah Turtle Islands.

51. Third, even the green sea turtle populations of both Sarawak and Sabah were in danger, despite Malaysia's claims to the contrary. Placed in historical context, these areas had suffered a massive reduction in green sea turtle populations: the population of green sea turtles in the Sarawak

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[45]Ibid., paragraph 10.

[46]J.A. Mortimer, (1990), Marine Turtle Conservation in Malaysia, in Proceedings of the Tenth Annual Symposium of Sea Turtle Biology and Conservation, p. 21.

[47]C.J. Limpus, (1993), Current Declines in South East Asian Turtle Populations, in Proceedings of the Thirteenth Annual Symposium of Sea Turtle Biology and Conservation, p. 89.

[48]J.A. Mortimer, (1990), Marine Turtle Conservation in Malaysia, in Proceedings of the Tenth Annual Symposium of Sea Turtle Biology and Conservation, p. 21.

[49]Country Report for Malaysia, presented at the Northern Indian Ocean Sea Turtle Workshop and Strategic Planning Session 13-18 January 1997 in Bhubaneswar, Orissa, India, p. 3.

[50]C.J. Limpus, Global Overview of the Status of Marine Turtles: A 1995 Viewpoint, in Biology and Conservation of Sea Turtles, (1995), Biology and Conservation of Sea Turtles, K.A. Bjorndal, p. 606. The United States noted that another analysis of the data documented that "the numbers [of olive ridley sea turtles] in Terengganu have seriously declined to only 35 nestings in 1995 compared to 293 nestings in 1984". Country Report for Malaysia presented at the Northern Indian Ocean Sea Turtle Workshop and Strategic Planning Session, 13-18 January 1997, in Bhubaneswar, Orissa, India, p. 3.

[51]Country Report for Malaysia, presented at the Northern Indian Ocean Sea Turtle Workshop and Strategic Planning Session, 13-18 January 1997, in Bhubaneswar, Orissa, India, p. 3.

Turtle Islands had suffered a "greater than 90 per cent decline in egg production", while green sea turtles in the Sabah Turtle Islands had suffered a "50 per cent decline in egg production". [52] This demonstrated what sea turtle biologists were saying for many years, i.e. that the establishment of sanctuaries in limited areas would not protect species that migrated widely. Finally, Malaysia's claims of increases in certain other nesting populations of sea turtles in Sabah and Sarawak were themselves of uncertain value. Malaysia reported these increases only very recently, and these reports covered only a short timeframe. It was not surprising that increases in nestings might be occurring in these limited areas, given that Malaysia had allowed an almost total harvest of sea turtle eggs there until quite recently.[53] Moreover, as noted above, scientists estimated that it took between 1,000 to 10,000 eggs to produce a single nesting female, the reported increase in the number of eggs being laid in Sabah and Sarawak might yield very few mature sea turtles, particularly if mature sea turtles remained subject to incidental mortality in shrimp fisheries in Malaysia. Finally, Dr. Crouse pointed out that the reported increases in egg production in Sabah and Sarawak might be nothing more than an increase in the number of eggs placed in hatcheries as a result of Malaysia's headstarting programme, rather than any increase in the number of sea turtle eggs overall in those areas. [54] A document produced by Malaysia examined the ineffectiveness of sea turtle hatcheries and headstarting, and criticized Malaysia's sea turtle conservation programme for relying almost exclusively on hatcheries.[55]

52. Regarding Thailand, the United States argued that scientific evi dence did not show that Thailand had ensured "the survival of a sufficient stock of sea turtles to protect against extinction". The study commissioned by Thailand's Office of Natural Resource Conservation reported that all populations of sea turtles nesting in Thailand "are seriously reduced from previous levels". [56] This report merely confirmed earlier observations. A 1995 analysis of the Global Overview of the Status of Marine Turtles found, for example, that: "[t]he stock [of olive ridleys] in the Andaman Sea of Thailand has been decimated to only tens of females nesting annually. ... A similar decimation of the nesting population [of leatherbacks] of the Andaman Sea area of western Thailand apparently occurred".[57] Similarly, the report on the Status of Marine Turtles in Thailand cited above not only determined that "populations of the sea turtles in Thailand have been found drastically declined" but also that "the loggerhead turtle is believed [as] being extinct from Thai waters". [58] Another document submitted by Thailand revealed that once five species of sea turtles nested in Thailand's waters, but

[52]C.J. Limpus, Current Declines in South East Asian Turtle Populations, (1993), in Proceedings of the Thirteenth Annual Symposium of Sea Turtle Biology and Conservation, p. 89. The United States noted that another scientific analysis documented that "the green turtle populations nesting in Sarawak and Sabah have both declined dramatically during the past five decades". J.A. Mortimer, (1990), Marine Turtle Conservation in Malaysia, in Proceedings of the Tenth Annual Symposium of Sea Turtle Biology and Conservation, pp. 21-22.

[53]C.J. Limpus, (1993), Current Declines in South East Asian Turtle Populations, in Proceedings of the Thirteenth Annual Symposium of Sea Turtle Biology and Conservation, p. 89; J.A. Mortimer, (1990), Marine Turtle Conservation in Malaysia in Proceedings of the Tenth Annual Symposium of Sea Turtle Biology and Conservation, pp. 21-22.

[54]Statement of Deborah Crouse, Ph.D., 23 July 1997, paragraph 8. Document submitted to the Panel by the United States.

[55]E.H. Chan and H.C. Liew, (1996), Decline of the Leatherback Population in Terengganu, Malaysia, 1956-1995, Chelonian Conservation and Biology, Vol. 2, No. 2, pp. 196-203.

[56]S. Settle, (1995), Status of Nesting Populations of Sea Turtles in Thailand and Their Conservation, in Marine Turtle Newsletter 1995, No. 68, p. 8.

[57]C.J. Limpus, (1995), Global Overview of the Status of Marine Turtles: A 1995 Viewpoint, in Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., p. 606.

[58]S. Chantrapoornsyl, (1997), Status of Marine Turtles in Thailand, Phuket Marine Biological Center, pp. 1-3.

today only four nested there.[59] Thailand could only point to one small area, Khram Island, in which sea turtles were supposedly well protected; but a document submitted by Thailand showed that sea turtle nestings on Khram Island were decreasing, while shrimp trawling in the area had in fact increased.[60] In the face of such evidence, the United States questioned how Thailand could maintain that, prior to its adoption of a TEDs programme in 1996, sea turtles found in the waters of Thailand were protected from extinction. Regarding the 5'000 baby sea turtles released each year by Thailand, the United States said that, due to the recognized and admitted mortality rate of baby sea turtles, this translated into only 10 sea turtles each year that might live to reach breeding age. Meanwhile, tens of thousands of mature sea turtles died every year in shrimp trawl nets. This explained why the United States disagreed with Thailand's conclusion that a nation "can ensure the survival of a sufficient stock of sea turtles to protect against their extinction" through the adoption of such measures without requiring the use of TEDs.

53. India disagreed with the US assertion that conservation measures other than TEDs were insufficient on their own to allow endangered sea turtles to recover. India had demonstrated that in the case of Gahirmatha, in the State of Orissa, complete protection of eggs along with prevention of exploitation of adults from the breeding area had led to the stabilization of the olive ridley sea turtle population, and thus its measures were "sufficient" to meet the objectives of conservation and protection of endangered sea turtles. India agreed with the United States that the programmes to protect eggs and hatchlings were, by themselves, insufficient. This was the reason why India had taken leading steps for the protection of the mass nesting areas which meant protection of eggs, hatchlings and adults along with protection of breeding grounds which meant protection of hatchlings, juveniles, sub-adults and adults. This had resulted in the stabilization of the sea turtle population at Gahirmatha as already demonstrated. Similarly, India shared the view that "conservation of eggs and hatchlings, without concurrent conservation of the older life stages, may be of limited value." However, the model of Dr. Deborah Crouse referred to by the United States had been questioned by another leading scientist from the United States who wrote that "eggs are important and cannot be ignored in recovery plans", and advocated "full protection in all life stages". [61]

54. The claim that certain nations, in particular India, had not yet adopted effective measures to protect older sea turtles was not correct. As already mentioned, India's successful conservation programmes had eliminated commercial exploitation and trade of adult hawksbill, green and olive ridley sea turtles and there was no documented evidence of any commercial exploitation or trade of leatherback and loggerhead sea turtles. India had an excellent record of sea turtle protection. Several international forums had acknowledged India's record of preservation of sea turtles. [62] The Director of the US NMFS had written a letter in April 1997 to the Chief Minister of the Government of the State of Orissa to compliment him for his role in conserving the Bhitarkanika sanctuary and specifically the olive ridley population of Orissa, and to express appreciation for the leadership that India had taken in implementing the successful conservation strategy of sea turtles. The assertion that prohibitions of the intentional killing of sea turtles had not succeeded was not applicable to India. As

[59] B. Phasuk, (1992), Biology, Culture, Technique and Conservation of Sea Turtle in Thailand.

[60] T. Sujittosakul and S. Senaluk, (1997), Relation Between Sea Turtle Nesting and Number of Shrimp Trawler Around Kram Island, Cholburi Province, Technical Paper No. 6, Marine Fisheries Division, Department of Fisheries.

[61] J. Mortimer, (1997), On Importance of Eggs, Marine Turtle Newsletter, No.76.

[62] IUCN (World Conservation Union), (1995), A Marine Turtle Conservation Strategy and Action Plan for the Northern Indian Ocean, and Integrating Marine Conservation in the Indian Ocean 1996 and Beyond, Summary and Working Group Reports, 28 November-1 December 1995, Mombasa, Kenya, p. 21.

already mentioned, prohibition of the earlier occurrence of intentional killing and harvesting of reproductively mature individuals to the tune of 50,000 to 80,000 per season in Orissa had led to the stabilization of the world's largest olive ridley population, and India's action had in fact led to the effective protection and conservation of this endangered species of sea turtles. In addition to the long-term programme described above, India added that its 8,000 kilometres coastline was protected by law and an area up to 500 meters from beach was virgin land. The Government of India had not allowed this area to be converted to tourist resorts which would disturb sea turtle populations. There were no water sports which caused considerable mauling of turtles in other parts of the world, the sea was not polluted and relatively free of debris which caused damage to sea turtles populations. The coastal zone regulation did not allow fishing up to 5 kilometres from beach and this had been extended up to 20 kilometres in turtle sensitive areas. Awareness programmes, workshops at national, regional and international levels had been organized to coordinate efforts to protect sea turtles.

55. Malaysia responded that the claim by the United States that measures to protect older sea turtles were of exponentially greater value to sea turtle populations overall was based purely on empirical data which had been generated from a population model, while the situation in Malaysia, which had showed that these programmes to protect eggs had been sufficient to bring about population recovery, was based on hard data collected over almost 30 years of constant monitoring. Malaysia maintained that the use of TEDs had not been found to be the sole measure necessary for the survival and protection of sea turtles. In the case of the United States, it could have been necessary to use TEDs in tandem with other measures since rates of incidental captures had been found to be exceptionally high. With respect to the alleged dramatic decline of sea turtle populations in Malaysia and other South East Asian countries, Malaysia noted that more recent publications than those produced by the United States showed population recoveries in Malaysia, e.g. green and hawksbill turtles of Sabah Turtle Islands [63]: in 1988, after 22 years of egg protection, the nesting population showed a reversal in its declining trends and nesting density reached a record high in 1991. Annual nestings of 8,084 in the period 1990 -94 represented a threefold increase over annual nestings of 2,633 recorded in the 1982 -86 period.[64] Malaysia further noted that while it was true that turtle populations in Terengganu had declined, it had to be borne in mind that "comparable declines throughout the region of the world were well-documented". Since the time when declines in Terengganu had been highlighted by local sea turtle biologists, the Terengganu State Government had intensified turtle conservation efforts, and was now subscribing to 100 per cent protection of leatherback eggs. However, due to the slow maturation time of sea turtles, the intensification of conservation programmes in Terengganu would not become apparent until about 20 years. Therefore, it was erroneous and premature to say that Malaysia's conservation programmes were not effective. In the Sabah Turtle Islands, for instance, 100 per cent egg protection had started in the 1970s and it was only in 1988 that population recovery began to emerge. Malaysia maintained that the prohibition on the intentional and direct harvest of sea turtles in Malaysia had prevented the total collapse of sea turtle populations.

56. Malaysia stressed that the United States had to acknowledge the scientific fact that different nesting populations of a particular species were distinct from each other and could not be treated uniformly. This was the reason why sea turtle conservationists stressed that each nesting population had to be protected in its own right. If one population was decimated, it could not be augmented by

[63]C.J. Limpus, (1995), Global Overview of the Status of MarineTurtles, Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., Smithsonian Institution Press, 2nd edition, pp. 605-609.

[64]E.H. Chan and H.C. Liew, (1996), A Management Plan for the Green and Hawksbill Turtle Populations of the Sabah Turtle Islands - A Report to Sabah Parks, Sea Turtle Research Unit (SEATRU), Universiti Kolej, Universiti Putra Malaysia, Terengganu.

individuals from another nesting population. Therefore, when considering the marine turtles of Malaysia, it was appropriate to view the different populations separately and not just consider all the four species uniformly. The conditions of the various sea turtle populations in Malaysia could not be treated or described in an uniform manner. Each nesting population was distinct and subject to different conditions. Firstly, the green and hawksbill population in the Sabah Turtle Islands had recovered to levels which surpassed historical records. This recovery was not short-lived, but had been sustained since 1988, when a reversal in the declining trend had first been manifested. The increases in the populations were valid and definitive data was available. The speculative view of Dr. Crouse that increases in egg production might be nothing more than an increase in the number of eggs placed in hatcheries was without scientific merit and without reference to the data which had been vigilantly collected by the staff of Sabah Park. The recovery of the Sabah Turtle Island sea turtle population was based on the number of nestings per year and not on the number of eggs collected. Secondly, the green turtle population of the Sarawak Turtle Islands had stabilized over the last 30 years. However, comparing current nesting levels with historical records showed a decline which had occurred in the 1950s, i.e. before the introduction of trawling in Sarawak. This decline had been attributed to intensive egg harvest and direct capture of turtles. Thirdly, the green turtle population of Redang Island had demonstrated a steady trend over the last ten years; no historical data was available for this population. Fourthly, the leatherback population in Terengganu had declined precipitously, due to intense egg harvest, the intensification of the fishing industry and the high seas driftnet fishery. Fifthly, there was no historical record indicating that olive ridleys nested in the thousands in Malaysia; the precipitous decline of olive ridley nesting in Terengganu, as alleged by the United States, was unfounded. As to the leatherback, the causes of its decline had been the rapid development of the fishing industry in Terengganu in the early 1970s, the introduction of Japanese high seas squid drift net fishery of the North Pacific in 1987, and commercial egg collection. [65] Therefore, except for the case of leatherback, sea turtles in Malaysia had either increased or stabilized for an extended period of time, without using TEDs. The US conclusion that all sea turtles in Malaysia were in dire conditions was erroneous and disregarded data available on the Malaysian sea turtle populations.

57. Thailand replied that the sources relied upon by the United States in paragraph 3.26 did not show that shrimp trawling was the cause of any perceived decline in sea turtle population. In paragraphs 3.56, 3.57 and 3.75, Thailand provided detailed arguments which refuted the US reading of those sources and which showed that Thailand had implemented sufficient sea turtle conservation programmes.

58. The United States replied to India that the nesting population at Gahirmatha had fluctuated widely in recent times. Large numbers of olive ridley strandings had occurred. The IUCN had noted with alarm the "significant fishing-related mortality" being sustained by this population, and that such mortality would certainly increase "as fishing activities continue to increase rapidly in the Indian Ocean".[66] In short, the olive ridley population at Gahirmatha was not safe. As to the argument that the olive ridley population nesting at Gahirmatha had "stabilized", the United States noted that there was a big difference between a population that was "recovering" and one that had "stabilized". A population that had been depleted to 1 per cent of its former size might achieve stabilization at that very low level and still be at grave risk of extinction. A population that was recovering was one that

[65]E.H. Chan and H.C. Liew, (1996), Decline of the Leatherback Population in Terengganu, Malaysia, 1956-1995, Chelonian Conservation and Biology, Vol. 2, No. 2, pp. 196-203.

[66]IUCN (World Conservation Union), (1997), A Marine Turtle Conservation Stragegy and Action Plan for the Northern Indian Ocean, p. 11.

had made substantial progress back to its former size. The statement that there were no recovering populations of olive ridleys anywhere had been made on the basis of extensive scientific research by C. J. Limpus, an Australian sea turtle biologist. [67] Regarding India's claim that the population model of Dr. D. Crouse had been questioned by another US leading scientist, the United States noted that the article referred to by India was written in fact by Selina Heppell, and not by Dr. Mortimer. More importantly, the article did not question the model of Dr. Crouse. The principal point of Dr. Heppell's article was that sea turtle eggs were important and could not be ignored in recovery plans, and that when sea turtle populations were at low levels, full protection in all life stages was needed. The article stated, as the United States was explaining throughout this proceeding, that "the reproductive value of eggs and hatchlings is generally much lower than that of large juveniles, subadults or adults", and thus that "an increase in the annual survival in the first year of life will always have comparatively small impact" on the preservation of sea turtle populations.

59. The United States replied to Malaysia that, as egg protection programmes existed in Malaysia since 1966, their effects should be known. In this respect, Malaysia's own exhibit [68] stated that "[a]ssuming a 20-year maturation period for leatherbacks, these hatchlings should already be recruiting into the breeding population. However, persistent population declines indicate no evidence of recruitment. ... The 100 per cent egg incubation practised now cannot significantly rehabilitate the population" unless measure were taken to effectively control fishery-related mortality. Malaysia's own exhibits[69] contradicted Malaysia's arguments regarding the recovery of the sea turtle populations at Sabah Turtle Islands and Sarawak Turtle Islands since they showed that egg protection was not enough and that these populations had not recovered. While the prohibitions on direct exploitation of sea turtles might have avoided a total collapse of Malaysian sea turtle populations, all species of sea turtles in Malaysia remained "vulnerable to extinction" [70] and a number of documents submitted to the Panel confirmed that all sea turtles in Malaysia were in dire conditions. [71] Another document submitted by Malaysia stated that TEDs should be used in Malaysia. [72] Finally, a study submitted by

[67]C.J. Limpus, (1995), Global Overview of the Status of Marine Turtles: A 1995 Viewpoint, Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., pp. 605-610.

[68]E.H. Chan and H.C. Liew, (1996), Decline of the Leatherback Population in Terengganu, Malaysia, 1956-1995, Chelonian Conservation and Biology, Vol. 2, No. 2, pp. 196-203.

[69]M.S. Suliansa, P. Basintal and N.L. Chan, (1996), Impacts of Fishery Related Activities on Sea Turtles, Paper presented at the National Seminar/Workshop on Marine Turtle and Terrapin Management, 22-23 October 1996, Cherating, Malaysia; and E.H. Chan and H.C. Liew, (1996), Decline of the Leatherback Population in Terengganu, Malaysia, 1956-1995, Chelonian Conservation and Biology, Vol. 2, No. 2, pp. 196-203.

[70]M.S. Suliansa, P. Basintal and N.L. Chan, (1996), Impacts of Fishery Related Activities on Sea Turtles, Paper presented at the National Seminar/Workshop on Marine Turtle and Terrapin Management, 22-23 October 1996, Cherating, Malaysia.

[71]The United States referred to the following documents: M.S. Suliansa, P. Basintal and N.L. Chan, (1996), Impacts of Fishery Related Activities on Sea Turtles, Paper presented at the National Seminar/Workshop on Marine Turtle and Terrapin Management, 22-23 October 1996, Cherating, Malaysia; and E.H. Chan and H.C. Liew, (1996), Decline of the Leatherback Population in Terengganu, Malaysia, 1956-1995, Chelonian Conservation and Biology, Vol. 2, No. 2, pp. 196-203; J.A. Mortimer, (1990), Marine Turtle Conservation in Malaysia, Proceedings of the Tenth Annual Symposium of Sea Turtle Biology and Conservation, p. 12; C.J. Limpus, Current Declines in South East Asian Turtle Populations, (1993), Proceedings of the Thirteenth Annual Symposium of Sea Turtle Biology and Conservation, p. 89; H.C. Liew, (1997), Country Report for Malaysia,paper presented at the Northern Indian Ocean Sea Turtle Workshop and Strategic Planning Session, Bhubaneswar, Orissa, India, 13-18 January 1997; C.J. Limpus, Global Overview of the Status of Marine Turtles: A 1995 Viewpoint, Biology and Conservation of Sea Turtles (K.A. Bjorndal ed., rev'd ed), pp. 605-610.; Statement by D. Crouse, 23 July 1997, paragraph 8.

[72]M.S. Suliansa, P. Basintal and N.L. Chan, (1996), Impacts of Fishery Related Activities on Sea Turtles, paper presented at the National Seminar/Workshop on Marine Turtle and Terrapin Management, 22-23 October 1996, Cherating, Malaysia.

Malaysia[73] showed that trawl nets caught more sea turtles than driftnets, thus contradicting Malaysia's claim that driftnets caused more sea turtle deaths than trawl nets.

60. As to whether the Indian olive ridley sea turtle population was "recovering", India replied that the US statement based on research done by Dr. C. J. Limpus was irrelevant. First, Dr. Limpus had not done any work on any significant population of olive ridley sea turtles in India, and, second, Australia did not have any record of any important olive ridley sea turtle population of its own which had migrated to Indian waters for Dr. Limpus to make any relevant observation.

61. Malaysia replied that the United States misquoted scientific information and used conclusions reached by Malaysian scientists on a particular population and superimposed those conclusions on a totally different population of sea turtles. For instance, when questioning the recovery of the sea turtle populations at Sabah and Sarawak Turtle Islands, the United States actually referred to the conclusions of an exhaustive analysis of the leatherback population, which had undergone population decline.[74] These conclusions could not be applied to the Sabah Turtle Islands population which had shown an impressive population recovery, to levels beyond historical levels. The United States also misinterpreted the study on leatherback populations[75]: (i) the statement "[h]owever, persistent population declines indicate no evidence of recruitment" contained in that study was made to prove that the low level of egg protection previously practised (only 5 - 20 per cent of total eggs laid) was insufficient for population recovery; (ii) the statement that "[t]he 100 per cent egg incubation practised now cannot significantly rehabilitate the population" was true because the population had declined to such low levels that 100 per cent actually presented only a small quantum of eggs, and in terms of absolute numbers of eggs, was comparable to the 5-20 per cent egg protection practised previously. Malaysia stressed that the same study did not identify shrimp trawls to be the major cause of the decline of the leatherbacks, and recommended that "fishing gear impacts need to be addressed at both the local and international levels". The statement that all species of sea turtles in Malaysia remained "vulnerable to extinction" was a generalization without any reference to statistics. The document stating that TEDs should be used in Malaysia also stated that "there are no direct observations made to prove that certain fishing gear can induce mortality to sea turtles".[76] Finally, the United States was wrong in referring to the Bin Ibrahim study[77] to show that trawl nets caught more sea turtles than driftnets. This study clearly showed that rates of capture for driftnets (for mesh larger than 18 cm) was 16 turtles per gear, while for trawl nets, it was 5 turtles per gear. In the survey, the number of turtles caught by trawls was shown to be 59, compared to the 33 caught by driftnets. A superficial and unscientific interpretation could lead to the conclusion that trawls caught more turtles than driftnets. Malaysia stressed, however, that this study surveyed 12 trawl nets, but only 2 driftnets. Therefore, in terms of rates of capture, and numbers of units of gear licensed, driftnets undoubtedly posed greater threats to sea turtles. To conclude, all the hard data presented by Malaysia refuted the argument made by the United States that all sea turtles in Malaysia were in dire conditions.

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[73]K. Bin Ibrahim, (1996), Country Status Report, Malaysia (Peninsular Malaysia), paper presented at the First SEAFDEC Workshop on Marine Turtle Research and Conservation, Kuala Terengganu, Malaysia, 15-18 January 1996, p. 17.

[74]E.H. Chan and H.C. Liew, (1996), Decline of the Leatherback Population in Terengganu, Malaysia, 1956-1995, Chelonian Conservation and Biology, Vol. 2, No. 2, pp. 196-203.

[75]Ibid.

[76]M.S. Suliansa, P. Basintal and N.L. Chan, (1996), Impacts of Fishery Related Activities on Sea Turtles, paper presented at the National Seminar/Workshop on Marine Turtle and Terrapin Management, 22-23 October 1996, Cherating, Malaysia.

[77]K. Bin Ibrahim, (1996), Country Status Report, Malaysia (Peninsular Malaysia), paper presented at the First SEAFDEC Workshop on Marine Turtle Research and Conservation, Kuala Terengganu, Malaysia, 15-18 January 1996, p. 17.

2. Whether Sea Turtles Are a Shared Global Resource

62. The United States submitted that sea turtles were a shared global resource. All species of sea turtles except the flatback (which was restricted to waters around Australia) regularly spent all or part of their lives in waters subject to US jurisdiction in the Atlantic and Pacific Oceans and the Caribbean Sea. Sea turtles being highly migratory creatures, moving in and out of a variety of ocean and coastal habitats, the species found in US waters swam across vast expanses of the high seas and through waters under the jurisdiction of many other countries. For example, recent DNA analyses revealed that some leatherback sea turtles in American Samoa were from a Malaysian/Indonesian stock, that loggerhead sea turtles found off the Pacific coast of the United States were known to nest in Japan and Australia and that green sea turtles in US Pacific Island territories might have ranges extending to the South China Sea.[78] Sea turtles served important functions in the ecosystems which they inhabited. For example, the regular presence of green turtles made seagrass beds more productive, caused nutrients to be cycled more rapidly, and gave the grass blades a higher protein content, thus benefiting other species. Furthermore, some populations of sea turtles, whose feeding areas might be hundreds or even thousands of kilometres from their nesting beaches, served an important role in nutrient cycling by transporting massive quantities of nutrients from these feeding grounds to typically more nutrient-poor coastal habitats in the vicinity of nesting beaches. Efforts by one nation to protect sea turtles would not succeed unless other nations in whose waters these species also occurred took comparable measures.

63. With respect to the US argument that sea turtles were a shared global resource, India noted that five species of sea turtles had been recorded in the waters and on the beaches of India, including the green turtle, the olive ridley, the leatherback, the hawksbill and the loggerhead. None of the evidence cited by the United States demonstrated that sea turtles found in the US areas subject to the TEDs requirement migrated to Indian territorial seas or beaches. Further, with respect to the olive ridley, the 1990 report cited by the United States specifically stated that "[t]he olive ridley, although probably the most numerous sea turtle worldwide, is very rare in US waters, and its status and future are not in the main, a direct United States responsibility".[79] The olive ridley population nesting in India's territorial waters, however, had increased substantially over the last ten years. India noted that long term tagging of the Gahirmatha sea turtle population had demonstrated that tagged olive ridley sea turtles frequently visited their nesting beach several times a year, proving that they did not engage in such long distance migration as alleged by the United States. Further, only 2 out of the nearly 20,000 tagged olive ridley sea turtles had been recovered off the coast of Sri Lanka, which was proximate to the Indian coast. No long distance recovery of tagged Gahirmatha sea turtles had been recorded in any other Indian Ocean country. At most, therefore, significant numbers of sea turtles would appear to migrate regionally, but not globally.

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[78]B.W. Bowen, (1995), Tracking Marine Turtles with Genetic Markers, BioScience, Vol. 45, p. 528; P.H. Dutton, et. al., (1997), Genetic Stock ID of Turtles Caught in the Pacific Longline Fishery, paper presented at the Seventeenth Annual Symposium of Sea Turtle Biology and Conservation. The United States observed that other examples of the highly migratory nature of sea turtles abounded. For example, recent DNA analyses indicated that 57 per cent of sea turtles found in Western Mediterranean waters derived from western Atlantic nesting populations. Ibid. Loggerhead sea turtles hatched on the beaches of eastern Florida were swept by ocean currents to the eastern Atlantic Ocean before returning to US coastal waters many years later. US Department of Commerce, et. al., (1993), Recovery Plan for U.S. Population of Loggerhead Turtle Caretta caretta, p. 5. Green sea turtles nesting in Florida travelled hundreds of kilometres to their resident foraging areas. B.A. Schroeder, et. al., (1994), Post-Nesting Movements of Florida Green Turtles: Preliminary Results from Satellite Telemetry, Proceedings of the Fourteenth Annual Symposium of Sea Turtle Biology and Conservation, p. 90. Hawaiian green sea turtles were long-range migrant breeders that nested primarily at French Frigate Shoals, the approximate midpoint of the Hawaiian Archipelago, which extended 2450 linear kilometres. G.H. Balazs, et. al. Preliminary Assessment of Habitat Utilization by Hawaiian Green Turtles in the Resident Foraging Pastures (NOAA Technical Memorandum 1987). Green turtles nesting at Ascension Island spent most of their adult lives at foraging grounds off the coast of Brazil and migrated more than 2,000 km to Ascension to nest. J.A. Mortimer and K.M. Portier, (1989), Reproductive Homing and Internesting Behavior of the Green Turtle (Chelonia Mydas) at Ascension Island, South Atlantic Ocean .

[79]National Research Council, National Academy of Sciences, (1990), Decline of the Sea Turtles: Causes and Prevention, p. 26.

64. Malaysia submitted that there was as yet no data to show that green turtles in the US Pacific had ranges extending to the South China Sea.[80] The definitive data available was: (i) green turtles nesting in Pulau Redang, Terengganu, had been tracked by satellite to feeding grounds occurring off Palawan Island (Philippines), west coast of Sabah, Bangka Island of Sumatra (Indonesia) and Natuna Island of Indonesia[81]; and (ii) green and hawksbill turtles tagged while nesting in the Turtle Islands of Sabah had been recovered in Palau Islands, Sangalalei, Cempadak and Kai Islands (Indonesia) and the Philippines.[82] There was no documentation showing that turtles which nested in the United States migrated to waters of India, Malaysia, Pakistan and Thailand. So far studies on long-distance migration of turtles showed that, although sea turtles were distributed globally, they migrated only within regions, and not globally.[83] This was the reason why sea turtle treaties and conservation programmes were made between nations on a regional basis and not a global basis. As examples of the regional cooperation, Malaysia mentioned the TIHPA Memorandum of Agreement, which had been concluded between Sabah and the Philippines, the Inter-American Convention and the Regional Marine Turtle Conservation Programme of SREP (South Pacific Regional Environment Programme).[84]

65. Pakistan observed that two species of sea turtles nested on Pakistani coasts (the green and the olive ridley). As stated by India, the olive ridley's status and future were not a direct US responsibility. Further, none of the sources cited by the United States demonstrated that the green turtle found in waters fished by Pakistani shrimpers migrated to US territorial waters during their life cycles.[85] In fact, the sources cited by the United States concluded that "Florida green turtles make use

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[80]In responding to similar arguments contained in Annex JJ of the United States (see below Section III.D), Malaysia noted that a careful examination of Bowen (1995), cited by the United States to show that "DNA analysis demonstrated that some leatherback sea turtles in American Samoa are from Malaysian or Indonesian stock" revealed that this study did not mention DNA studies on leatherback turtles. Bowen had conducted studies on loggerheads, hawksbills and green turtles. Further, Dutton et al. (1997) made no mention of green turtles from the US Pacific Island territories reaching the South China Sea. Dutton et al. (1997) stated in fact that "[a]nalysis of mitochondrial DNA (mtDNA) for green turtles indicates that eastern, western and central Pacific nesting populations are genetically distinct and suggests these regional nesting assemblages represent independent demographic units for management purposes". Dutton et al. (1997) also found that green turtles caught in the Hawaiian longline fishery were from Hawaiian and eastern Pacific rookeries, and none from any of the western Pacific rookeries.

[81]H.C. Liew, E.H. Chan, F. Papi and P. Lusch, (1995), Long distance migration of green turtles from Redang Island, Malaysia: The need for regional cooperation in sea turtle conservation, in Proceedings of the International Congress of Chelonian Conservation. 6 -10 July 1995, Confaron, France, pp. 73 -75.

[82]E.H. Chan and H.C. Liew, (1996), A management plan for the green and hawksbill turtle populations of the Sabah Turtle Islands: A report to Sabah parks, SEATRU (Sea Turtle Research Unit), Universiti Kolej, Universiti Putra Malaysia, Terengganu.

[83]Malaysia referred to G.H. Balazs, (1994), Homeward Bound: Satellite Tracking of Hawaiian Green Turtles from Nesting Beaches to Foraging Pastures, NOAA Technical Memorandum, NMFS-S-SEFSC-341, pp. 205-208 (Green turtles nesting on East Island of the French Frigate Shoals migrated to foraging areas within the 2,400 km span of the Hawaiian Archipelago. The turtles which were tracked by satellite migrated over distances ranging from 830 to 1260 km. The feeding and nesting grounds as well as migratory pathways were confined within the Hawaiian Archipelago); H.C. Liew, E.H. Chan, P. Luschi and F. Papi, (1995), Satellite Tracking Data on Malaysian Green Turtle Migration, 9(6), pp. 239-246 (Satellite tracking had demonstrated that green turtles nesting on Redang Island, off the east coast of Peninsular Malaysia, migrated to feeding grounds bordering the South China Sea); A. Meylan, (1995), Sea Turtle Migration - Evidence from Tag Return, Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., pp. 91-100 (This study provided numerous examples of range of sea turtle migrations using tag returns. The migrations were restricted to specific regions); B.W. Bowen, (1995), Tracking Marine Turtles with Genetic Markers, BioScience, Vol. 45, No. 8, pp. 528-534 (Studies using genetic markers had shown that juvenile loggerhead turtles which fed in the coastal water of Baja California were derived from nesting grounds in Japan and western Australia. The movements of these turtles were trans-Pacific, but were confined to the Pacific Ocean).

[84]Environment Newsletter, The Quarterly Newsletter of the South Pacific Regional Environment Programme (SREP), No. 40, January/March 1995.

[85]Pakistan explained that the source cited by the United States to support its assertion that "[g]reen sea turtles nesting in Florida travelled hundreds of kilometres to their resident foraging areas" noted only that transmitters had been attached to three green turtles and data collected

of the extensive seagrass meadows and coral reefs in the Florida Keys as resident foraging habitats". [86] If sea turtles were as highly migratory as claimed by the United States, the exclusion of certain US shrimp fisheries and the shrimp fisheries of other nations from the TEDs requirement would appear to be unjustified. In that regard, the 1990 report cited by the United States noted that "[i]n US Atlantic waters, green turtles occur around the US Virgin Islands and Puerto Rico and from Texas to Massachsetts".[87] In addition, other turtles which occurred in US waters also occurred in waters north of the Virginia-North Carolina border.[88] Further, the report indicated that US shrimp fishing zones extended along the Atlantic coast, including the area north of the Virginia-North Carolina border to and including parts of the Maine coast.[89] Moreover, the report showed that turtle strandings did occur on beaches adjacent to the fishing zones north of the Virginia-North Carolina border.[90]

66. Thailand noted that while sea turtles did migrate regionally (e.g. between the United States and the Caribbean), they were not defined as "highly migratory" in the UN Convention on Straddling Fish Stock and Highly Migratory Species. Further, it was doubtful that any sea turtle ranged from US territorial waters to Thai territorial waters.[91] In fact, the 1990 report cited by the United States noted that the olive ridley (the most abundant species of sea turtle in Thailand), "is very rare in US waters, and its status and future are not in the main, a direct United States responsibility".[92] Thailand was aware of no record of sea turtles from maritime waters around the North American continent being found in the waters of Southeast Asia. In fact, a tagging study conducted in Thailand demonstrated that juvenile sea turtles remained close to nesting areas. Most sea turtles tagged and released at 3-6 months were recaptured within 8 months of their initial release.[93] Furthermore, Thailand was aware of no doctrine of international law that would permit the United States to regulate unilaterally the use or conservation of a "shared global resource" without the consent of other nations in whose

(..continued)

had shown that one of these turtles had remained "just off-shore the lower Florida Keys" and another had been reported "approximately 40 km west of Key West." The conclusion of the study was that "Florida green turtles make use of the extensive seagrass meadows and coral reefs in the Florida Keys as resident foraging habitats." See B.A. Schroeder et. al., (1994), Post Nesting Movements of Florida Green Turtles: Preliminary Results from Satellite Telemetry, Proceedings of the Fourteenth Annual Symposium of Sea Turtle Biology and Conservation, p. 90.

[86]B.A. Schroeder, et. al., (1994), Post-Nesting Movements of Florida Green Turtles: Preliminary Results from Satellite Telemetry, Proceedings of the Fourteenth Annual Symposium of Sea Turtle Biology and Conservation, p. 90.

[87]National Research Council, National Academy of Sciences (US), (1990), Decline of the Sea Turtles: Causes and Prevention, p. 23.

[88]Pakistan referred to the study by the National Research Council, National Academy of Sciences, (1990), Decline of the Sea Turtles: Causes and Prevention, which indicated that: Kemp's Ridley was found "as far north as Long Island and Vineyard Sound, Massachusetts", p. 23; in the Western Hemisphere, the loggerhead was found as far North as Newfoundland, p. 29; "The leatherback is frequently encountered outside the tropics, even in latitudes approaching polar waters. For example, it is often reported in the waters of New England and the Maritime Provinces of Canada, possibly as far north as Baffin Island", p. 39.

[89]The same study (pp. 53 and 83) noted that brown shrimp were found along the north Atlantic and Gulf coasts from Martha's Vineyard to the Yucatan coast and white shrimp ranged along the Atlantic coast from Fire Island, New York to Saint-Lucie Inlet, Florida.

[90]National Research Council, National Academy of Sciences (US), (1990), Decline of the Sea Turtle: Causes and Prevention.

[91]Thailand referred to L. Seachrist, (1994), Sea Turtles Master Migration with Magnetic Memories, Science No. 264, pp. 661-62, noting that loggerheads born on beaches along the coasts of North and South America migrated to the Sargosso Sea in the middle of the North Atlantic and then returned to their birth places; B.W. Bowen and J.C. Avise, (1994), Tracking Turtles Through Time, Natural History, Vol. 103, No. 12, pp. 36-42, showing that South American green turtles migrated from the South American Coast to Ascension Island and then returned to South America and concluding that "green turtles should not be managed as if they were a single, homogeneous population".

[92]See National Research Council, National Academy of Sciences, (1990), Decline of the Sea Turtles: Causes and Prevention, p. 41. Thailand noted that before the US Court of Appeals for the Federal Circuit, the US executive branch noted that five species were the subject of Section 609(a) and (b): the loggerhead, the leatherback, the green, the hawksbill, and the Kemp's ridley.

[93]B. Phasuk, (1992), Biology, Culture, Technique and Conservation of Sea Turtle in Thailand.

jurisdiction activities took place that could affect that resource. Certainly, the United States had failed to cite any such doctrine or source of law.

67. Thailand noted that the United States appeared to argue that Thailand had incomplete jurisdiction with respect to sea turtles that nested on Thai beaches and swam in Thai waters or, at least, that the United States shared jurisdiction with Thailand over such resources. As set forth in the LOS Convention, however, a coastal State had sovereign rights, including the right to establish conservation measures, with respect to natural resources found in territorial sea, contiguous zone and exclusive economic zone. It was the conservation measures adopted by the coastal State that applied within waters subject to the coastal State's sovereignty, not the conservation measures of a State thousands of miles away. If a resource was truly shared between two or more States, those States had a duty to cooperate to resolve resource management issues, but this did not change the fact that it was the conservation policy of the coastal State that applied in its territorial waters and exclusive economic zone. The fact that sea turtles might be found on the high seas was irrelevant. There had been no showing in this case that the measure in question was tailored to prevent the importation of shrimp caught on the high seas as opposed to shrimp caught in Thailand's territorial waters and exclusive economic zone. Moreover, while it was correct that no one State had jurisdiction over the high seas, international law dictated that management of resources found in the high seas should be resolved through cooperative action by interested States. While the United States might establish fishing regulations with respect to its own nationals and flag vessels which operated on the high seas, there was no basis in international law for the United States to determine unilaterally what conservation policies were to be followed by all other nations on the high seas.

68. The United States reiterated that the very attempt by the complainants to characterize certain sea turtles as "under their jurisdiction" was inaccurate both as a matter of fact and of international law. The same species of sea turtles occurred in the waters subject to the jurisdiction of many nations, as well as on the high seas, an area in which no nation exercised exclusive jurisdiction but in which all nations had a common interest. Moreover, scientific evidence revealed that sea turtles were highly migratory, i.e. that individual sea turtles often swam thousands of kilometres, across vast expanses of open ocean and across dozens of international boundaries. In that regard, the argument made by the complainants that, because few turtles migrated from US waters to their waters, the United States was not entitled to adopt the measures at issue was irrelevant. Sea turtles were a shared global resource, which could only be effectively protected and conserved if trawling-related mortality was reduced throughout their range, by the combined action of many nations.

69. India submitted that the statement that "the same species of sea turtles occur in the waters subject to the jurisdiction of many nations, as well as on the high seas, an area in which no nation exercises exclusive jurisdiction but in which all nations have a common interest" was incorrect. Long distance global migration of sea turtles inhabiting Indian coastal waters had not been established by scientific studies. In fact, the current approach among the experts in this field appeared to be on regional conservation measures to achieve effective sea turtle conservation. [94]

70. Malaysia agreed that the same species of sea turtles occurred in waters subject to the jurisdiction of many nations. However, the various populations of the same species which occurred in different regions were distinct populations which did not mix and interbreed with populations occurring in other regions, even though they might be of the same species. For instance, the green

[94]IUCN (World Conservatin Union), (1995), A Marine Turtle Conservation Strategy and Action Plane for the Western Indian Ocean, p. 14, and IUCN (World Conservation Union), (1997), A Marine Turtle Conservation Strategy and Action Plan for the Northern Indian Ocean, p. 11.

turtle populations of Malaysia did not migrate to US waters; therefore, the United States did not have jurisdiction over them, even though the same species might occur in the United States.

71. The United States noted that IUCN, the "experts in this field" referred to by India, had in fact prepared a Global Strategy for the Protection of Marine Turtles in 1995. [95] IUCN was in the process of developing regional strategies as a means to implement its overall global strategy. The recommendations of the regional strategy papers, including the use of TEDs, were very similar to those found in the global strategy paper. As to the tagging studies referred to by India to support the argument that sea turtles migrated only within confined areas, the United States said that these studies only yielded data if a tagged turtle happened to be found later in its life cycle in another location. In other parts of the world, where satellite tracking had been used, sea turtles could be followed continuously and had been found to migrate thousands of kilometres, as confirmed by DNA analyses.[96] Malaysia admitted that sea turtles had been formerly caught by driftnets on the high seas, which reflected their understanding that sea turtles certainly crossed international boundaries in the course of their lives.

72. India replied that the reference to the IUCN regional strategy established that even the IUCN had not considered it effective to deal with protection and conservation of endangered sea turtles on a global basis, and had evolved towards regional strategies. This reinforced India's point that sea turtles were not highly migratory. Regarding the migratory behaviour of sea turtles, India noted that the United States did not provide specific scientific data regarding endangered sea turtles found in Indian waters, while making general assertions on this issue.

3. Role of Shrimp Trawl Fishing in Sea Turtle Extinction

73. The United States submitted that, as recently as the 19th century, sea turtles were very abundant, with some populations numbering well into the millions. [97] Today, all species of sea turtles faced the danger of extinction, primarily because of human activities. For example:

- In 1946, an estimated 40,000 female Kemp's ridley sea turtles nested on the beach at Rancho Nuevo, Mexico in a single day. By 1988, only an estimated 650 nested at the same site throughout the entire nesting season. [98]
- A 1996 study of the four major Pacific nesting beaches of leatherback turtles, which sustained as much as half of all global nesting for the species, found that the world's largest population of endangered leatherback turtles had collapsed. The decline at one of the sites had progressed at an annual rate of 23 per cent for the last twelve years. [99]
- Hawksbill populations had shrunk 80 per cent or more in the last three generations. [100]

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[95]IUCN (World Conservation Union), (1995), A Global Strategy for the Conservation of Marine Turtles.

[96]B. W. Bowen and J. C. Avise, (1994), Tracking Turtles Through Time, Natural History, Vol. 103, No. 12, p. 36.

[97]IUCN (World Conservation Union), (1995), A Global Strategy for the Conservation of Marine Turtles, p. 1.

[98]National Research Council, National Academy of Sciences, (1990), Decline of the Sea Turtles: Causes and Prevention, p. 26.

[99]S.A. Eckert, et. al., (1996), Estimation of the Nesting Population Size of the Leatherback Sea Turtle Demochelys coriacea in the Mexican Pacific.

[100]B. Groombridge and R. Luxmoore, (1989), The Green Turtle and Hawksbill (Reptilia cheloniidae): World Status, Exploitation and Trade.

- The Southeast Asian and Indian Ocean regions had experienced particularly alarming declines in sea turtle populations, even with respect to olive ridley sea turtles, which were the most abundant species.
- In Malaysia, the Terengganu stock of nesting olive ridley turtles had shrunk from possibly thousands annually to approximately 20 each year. [101]
- In Thailand, the number of olive ridley turtles from the Andaman Sea that nested each year was now numbered in the tens. [102]
- Other species had also declined dramatically. [103]

74. The United States considered that the internati onal community had responded to the imperiled global status of sea turtles. Since 1975, all species of sea turtles had appeared on Appendix I to the CITES. Similarly, all species except the flatback were listed in Appendices I and II to the CMS and in Appendix II of the Protocol Concerning Specially Protected Areas and Wildlife to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region. [104] Since the 1970s, all species of sea turtles that occurred in waters subject to US jurisdiction had been listed as either endangered or threatened under the US Endangered Species Act of 1973. [105]

75. Sea turtles faced a variety of threats in both the marine and nesting environments. However, the incidental capture and drowning of sea turtles in shrimp trawl nets had caused the greatest number of human-induced sea turtle deaths, accounting for more deaths than all other human activities combined.[106] For this reason, the Marine Turtle Specialist Group of the IUCN (World Conservation Union) identified reduction of sea turtle mortality in such trawling operations as a priority action item.[107] The United States submitted that, as early as 1982, it was recognized that "shrimp trawlers were considered to capture and drown more sea turtles worldwide than any other form of incidental capture".[108] Illustrative examples of the effects of trawling on these endangered species included:

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[101]C.J. Limpus, (1995), Global Overview of the Status of Marine Turtles: A 1995 Viewpoint, in Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., pp. 605-610.

[102]Ibid.

[103]C.S. Kar and S. Bhaskar, (1995), Status of Sea Turtles in the Eastern Indian Ocean, in Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., p. 365. The United States noted that some other examples of precipitous declines of sea turtles populations included a 50-80 per cent decline in nesting loggerhead females at eastern Australian rookeries since the mid-1970s and a significant decline in green turtle populations in Indonesia and French Polynesia. C. Limpus and D. Reimer, (1994), The Loggerhead Sea Turtle, Caretta caretta, in Queensland: A Population in Decline, in Proceedings of the Australian Marine Turtle Conservation Workshop, Queensland Department of Environment and Heritage and Australian Nature Conservation Agency, R. James ed., pp. 39-60; C.J. Limpus, (1995), Global Overview of the Status of Marine Turtles: A 1995 Viewpoint, in Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., pp. 605-609.

[104]Protocol Concerning Specially Protected Areas and Wildlife to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, 24 March 1983, TIAS No. 11085.

[105]Public Law 93-205, 16 U.S.C. 1531 et. seq.

[106]National Research Council, National Academy of Sciences, (1990), Decline of the Sea Turtles: Causes and Prevention, Washington D.C., pp. 76 and 145.

[107]IUCN (World Conservation Union) Marine Turtle Specialist Group, (1995), A Global Strategy for the Conservation of Marine Turtles, p. 8.

[108]H.O. Hillestad et. al., (1982), Worldwide Incidental Capture of Sea Turtles, in Biology and Conservation of Sea Turtles, K.A. Bjorndal, pp. 489-495. The United States noted that the incidental take of sea turtles by shrimp trawl vessels had been the largest source of mortality for the Kemp's ridley, the most critically endangered of all sea turtles, and had contributed to the decline and impeded the recovery of the species. National Research Council, National Academy of Sciences, (1990), Decline of the Sea Turtles: Causes and Prevention, p. 76.

- A 1994 survey of India's Orissa coast documented 5,000 dead olive ridley sea turtles and concluded that "these deaths were due to accidental capture in trawl nets". [109] Another study similarly concluded that the drowning of the turtles at Gahirmatha, India, during breeding season due to mechanized boats, including trawlers, had become a "major threat" to these species.[110]
- The drastic decline of sea turtles in waters off Thailand, in both the Andaman Sea and the Gulf of Thailand, had resulted in significant part from heavy fishing activities, including trawling.
- In Malaysia, the incidental capture of sea turtles in fishing trawls in Terengganu waters had contributed significantly to a catastrophic decline of what had been once the largest nesting sea turtle population in the Malaysian Peninsula.
- Sea turtle researchers from countries in the Northern Indian Ocean region, including India, Pakistan, Malaysia and Bangladesh, had identified incidental capture in trawl nets and other fishing gear as a significant threat to sea turtle populations in the region.
- An analysis of 25 years of loggerhead sea turtle data from Queensland, Australia concluded that "the [prawn] trawling industry has probably been the major contributor to the decline in eastern Australian population numbers". [111]
- In Croatia, trawlers have been identified as the number one source of incidental take, accounting for 70 per cent of the estimated 2,500 sea turtles captured incidentally in Croatian fisheries each year.[112]

76. Data from the United States also vividly demonstrated the threat th at sea turtles faced from shrimp trawl nets. Before the late 1980s, when the US government first required shrimp trawl vessels to use TEDs, an estimated 5,000 to 50,000 loggerhead turtles and 500 to 5,000 Kemp's ridley turtles drowned in trawl nets pulled by US shrimp vessels each year. Most of these turtles were juveniles and subadults, the age and size classes most critical to the stability and recovery of sea turtle populations.[113] In general, the accidental capture and drowning of sea turtles during fishing had been the major cause of the continuing decline in the United States of these species, despite improved beach protection throughout the 1970s.

77. India observed that, while the sources referred to by the United States appeared to indicate that shrimp trawling was a major source of sea turtle mortality in waters in and around the continental United States, the United States did not present any evidence indicating that shrimp trawling was the largest source of sea turtle mortality in India. Indeed, the evidence cited by the United States showed the opposite. Specifically, the study referred to by the United States stated that "[a]t Gahirmatha, although trade in turtles and eggs is not there any more, considerable number of turtles are dying due to fishing activities in this area. Even then, if one considers the number of nesting turtles from year to year, it is reasonable to say that the population nesting at Gahirmatha has not been adversely affected

[109]B.C. Choudhury, (1997), Country Report: India - Sea Turtle Status, Conservation and Management in India , p. 2.

[110]P. Mohanty-Hejmadi, (1994), Biology of the Olive Ridleys of Gahirmatha, Orissa, India, in Proceedings of the Fourteenth Annual Symposium of Sea Turtle Biology and Conservation, p. 90.

[111]C. Limpus and D. Reimer, (1994), The Loggerhead Sea Turtle, Caretta caretta, in Queensland: A Population in Decline, in Proceedings of the Australian Marine Turtle Conservation Workshop, Queensland Department of Environment and Heritage and Australian Nature Conservation Agency, R. James ed., pp. 39-60.

[112]B. Lazar and N. Tvrtkovia, (1997), Results of Marine Turtles Research and Conservation Program in Croatia , paper presented at the Seventeenth Annual Symposium of Sea Turtle Biology and Conservation.

[113]D.T. Crouse et. al., (1987), A Stage-based Population Model for Loggerhead Sea Turtles and Implications for Conservation , Ecology, Vol. 68, pp. 1412-1423.

by these activities".[114] The study actually noted that the number of olive ridleys nesting at Gahirmatha had increased substantially over the last ten years. In 1985, a total of 286,000 turtles nested in three batches of mass nesting. By 1991, that number had increased to more than 600,000 and remained constant. Based on these facts, the report concluded that "the Gahirmatha population has attained a stability as [far as] the number of nesting emergences is concerned". Increase in nestings was the factor which the United States pointed to demonstrate that its conservation efforts had yielded encouraging results. Thus, the report demonstrated that the Indian sea turtle population could be sustained without the TEDs requirement contemplated by the United States. Finally, this report indicated that the olive ridley population in India had achieved stability, suggesting that India's current shrimping practices were in accordance with the concept of sustainable development. India further noted that the second study [115] mentioned by the United States - discussing the death of 5,000 olive ridleys in trawling nets -did not distinguish between shrimp trawls and other trawls, and concerned olive ridleys, a species which was not a direct US responsibility. India further submitted that another document produced by the United States noted that the South African loggerhead population had more than doubled since the early 1960s when strong protective measures had been introduced; on the other hand, the United States indicated that only one African country, Nigeria, required TEDS. Thus, the increase in loggerhead population in South Africa was due to conservation measures other than TEDs. Regarding the United States questioning the degree of enforcement of measures currently in place in India, India noted that the effective enforcement of Indian domestic legislation was a matter for India. Moreover, India noted that the US enforcement record with respect to its TEDs programme had been questioned. A Bangkok Post article [116] noted that the "Humane Society alleges that 41 per cent of Texas shrimpers surveyed had violated US regulation to protect sea turtles." Further, undercover investigators stated that 13 of the 32 vessels checked had disabled their TEDs. In response to claims by the Texas Shrimp Association that the report was a hoax and that the US Coast Guard had reported a 96.9 per cent compliance with the law, the article noted that shrimpers knew when Coast Guard inspectors were coming, but "the society's sleuths kept a lower profile."

78. Malaysia responded that there was no historical record indicating that olive ridleys had nested in the thousands in Malaysia. Neither was there any historical account of the phenomenon of olive ridley arribadas[117] occurring in South East Asia. Malaysia further replied that the US conclusion regarding the responsibility of shrimp trawl nets for sea turtles deaths had been reached by the US Academy of Sciences which had estimated that 55,000 turtles drowned annually in US shrimp trawls.[118] While the United States had found that this was the case for the US populations of sea turtles, the same conclusion could not be applied to all sea turtle populations in the world. Moreover, over 90 per cent of the deaths referred to concerned loggerhead turtles [119] which were not found in

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[114]P. Mohanty-Hejmadi, (1994), Biology of the Olive Ridleys of Gahirmatha, Orissa, India, in Proceedings of the Fourteenth Annual Symposium of Sea Turtle Biology and Conservation, p. 90.

[115]B.C. Choudhury, (1997), Country Report: India - Sea Turtle Status, Conservation and Management in India , p. 2.

[116]"Troubled Waters", in Bangkok Post, 17 April 1997.

[117]Note: some species of sea turtles nest in an aggregated manner, i.e. many females gather in the sea near the nesting beach and then emerge to nest in a loosely synchronized manner over several hours. This phenomenon is known as "arribada". (National Research Council, National Academy of Sciences, (1990), Decline of the Sea Turtles: Causes and Prevention, Washington D.C., p. 18).

[118]Weber, M., Crouse, D., Irvin, R. and Iudicello, S., (1995), Delay and Denial: A Political History of Sea Turtles and Shrimp Fishing, Center for Marine Conservation, p. 12.

[119]T.A. Henwood and W.E. Stuntz, (1987), Analysis of Sea Turtle Captures and Mortalities During Commercial Shrimp Trawling, Fishery Bulletin Vol. 85, No. 4, pp. 813 -817.

Malaysia. In other parts of the world, other causes of mortality could take precedence, e.g. harvesting and consumption of turtle eggs or direct capture of turtles for consumption. Therefore, what might be true for the United States could not be extrapolated to other countries. The statement that shrimp trawlers killed more than other forms of incidental capture [120] did not apply to Asia, but was based on studies made in Australia, South and Central America and North America. The study in question also reported that "very little has been reported on the incidental capture of sea turtles" on African and Indian Ocean waters. [121] Moreover, a later publication identified fishing trawl, and not shrimp trawl, as the highest cause of olive ridley mortality in India. [122]

79. Malaysia did not deny that the incidental captures of sea turtles in fishing gear in Terengganu waters had contributed significantly to the decline of sea turtles. A study conducted in 1984 showed that fishing gear (trawlnets, i.e. mainly fish trawls and not shrimp trawls, driftnets and bottom longlines) contributed significantly to the mortality of turtles in the waters of Terengganu. [123] Based on estimates, some 1,164 turtles had been caught by licensed fishing vessels in Terengganu in 1984-1985. In a more recent analysis of the leatherback population decline [124], two periods of markedly sharp declines were identified, i.e. from 1972-1974 and from 1978-1980. The 1972-74 decline was attributed to the rapid development of the fishing industry in Terengganu in the early 70's, while the decline in the latter period, 1978-80 was attributed to the introduction of the Japanese high seas squid driftnet fishery of the North Pacific in 1978. Malaysian gear responsible for turtle mortalities in Terengganu were identified as trawlnets (fish trawls), driftnets (large-meshed nets for capture of rays), and sunken fish traps. In Terengganu, the dramatic decline of leatherback sea turtles was due to a combination of factors, of which commercial egg collection was a major factor. However, in the last 10 years the Terengganu State Government had intensified conservation efforts of sea turtles [125], as described in paragraph 3.29. Malaysia further submitted that of the five species of sea turtles sought to be protected under Section 609, the three species found in US waters which were also found in Malaysia were the green, leatherback and hawksbill turtles. None of these three species fed on shrimps. Two other species - loggerhead and Kemp's ridley - were found in the United States but not in Malaysia. Both were the major species occurring in the United States and accounted for over 95 per cent of the turtle mortalities in shrimp trawl in the United States [126]; they fed on shrimps, i.e. in areas which were shrimp trawling grounds, thus accounting for their vulnerability in shrimp trawls. The Malaysian species did not have feeding grounds coinciding with shrimping grounds. Thus,

[120]H.O. Hillestad et. al., (1982), Worldwide Incidental Capture of Sea Turtles, in Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., pp. 489-495.

[121]Ibid.

[122]B. Pandav, B.C. Choudhury, C.S. Kar, (1994), Olive Ridley Sea Turtle (Lepidochelys olivacea) and its Nesting Habitats along the Orissa Coast, India: A Status Survey, Wildlife Institute of India. Malaysia also noted that olive ridley did not come under the scope of Section 609.

[123]E.H. Chan, H.C. Liew. and A.G. Mazlan, (1988), The incidental capture of sea turtles in fishing gear in Terengganu, Malaysia, Biological Conservation, Vol. 43, pp. 1-7. Malaysia noted that Table 2 of this paper very clearly showed that incidental captures occurred from March to September, when fish and not shrimp were targeted, but no reports were made of captures between October to February, i.e. during the shrimping season.

[124]E.H. Chan and H.C. Liew, (1996), Decline of the leatherback population in Terengganu, Malaysia, 1956-1995, Chelonian Conservation and Biology, Vol.2, No. 2, pp. 196-203.

[125]E.H. Chan, (1991), Sea Turtles, in The State of Nature Conservation in Malaysia, R. Kiew ed., Malaysian Nature Society, Kuala Lumpur, pp. 120-134.

[126]T.A. Henwood and W.E. Stuntz, (1987), Analysis of Sea Turtle Captures and Mortalities During Commercial Fishing Shrimp Trawling, in Fishery Bulletin, Vol. 85, No. 4, pp. 813-817.

unlike the situation in the United States, where shrimp trawl fisheries took place in areas where sea turtles occurred, in Malaysia trawl fishing did not coincide with areas where sea turtles occurred. Malaysia also noted that loggerhead turtles were at risk in the groundfish otter-trawl fishery in the US waters in the Gulf of Maine and the mid-Atlantic Ocean, and queried whether TEDs were required in this particular fishery.

80. Pakistan argued that, as a member of CITES, it recognized that sea turtles were threatened with extinction. However, the fact that sea turtles were endangered did not justify the US measures at issue. Pakistan was in the best position to determine the measures to be taken to protect sea turtles within Pakistani jurisdiction while taking into consideration the concept of sustainable development and Pakistan's needs and concerns based upon its level of economic development. In Pakistan, 100 per cent of wild harvested shrimp was done using manual means, and not with large or sophisticated nets. Thus, turtles were not in danger of being caught. Pakistan argued that the report cited by the United States concluding that shrimp trawl fishing had caused the "greatest number of human-induced sea turtle deaths"[127] was generally based on studies associated with US sea turtle population. Indeed, the report noted that "by far the most important source of deaths was the incidental capture of turtles (especially loggerheads and Kemp's ridleys) in shrimp trawling". As already noted, the two species common to Pakistan were the green and olive ridley. While this report indicated that shrimp trawling in the United States was a serious threat to US sea turtle populations, the United States provided no evidence concerning the level of incidental capture of sea turtles associated with shrimp trawling in Pakistan. Pakistan did not deny that one of the threats to sea turtles was accidental capture in fishing nets.[128] However, this did not suggest that shrimp trawling was the source of the greatest number of human-induced deaths in Pakistani fisheries. Actually, another report cited by the United States noted, with respect to shrimp trawlers in the African and Indian Ocean waters: "very little has been reported on the incidental capture of sea turtles by trawlers in this area".[129]

81. Pakistan noted that a document submitted by the United States included the following as one of the action issues: "[i]ncomplete data on accidental mortality in fishing gear, including trawl nets, long lines, drift nets, purse seines, gill nets, and other fishing methods"; sub-items under this issue included "[a]ssess rates of sea turtle mortality in all types of fishing gear and fishing practices used in the NIO" and "[i]dentify levels of mortality that sea turtle populations can sustain".[130] These statements made clear that the greatest human-induced cause of sea turtle mortality in the Northern Indian Ocean was unknown. It was then difficult to understand how the US action were in accordance with the preamble of the WTO Agreement when the level of incidental take consistent with the principle of sustainable development was unknown. Pakistan further noted that the statement contained in the same document ("promote use of sea turtle excluder devices (TEDs) from trawl fisheries where necessary"[131]), could hardly be said to be an endorsement of the US position that

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[127]National Research Council, National Academy of Sciences, (1990), Decline of the Sea Turtles: Causes and Prevention, Washington D.C.

[128]WWF-Pakistan and Sindh Wildlife Department, Marine Turtles of Pakistan.

[129]H.O. Hillestad et. al., (1982), Worldwide Incidental Capture of Sea Turtles, Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., pp. 489-495.

[130]IUCN (World Conservation Union), (1997), A Marine Turtle Conservation Stragegy and Action Plan for the Northern Indian Ocean, p. 10.

[131]Ibid., p. 11.

TEDs must be used by all trawls, except those operating in cold-water shrimp fisheries. Notwithstanding these facts, the United States, through the imposition of its embargo, would have Pakistan direct its limited resources first to the shrimp fishery before determining whether it would be better for the local sea turtle population to direct resources elsewhere. Pakistan also noted that IUCN listed 6 areas in which mortality should be reduced but did not suggest that reduction of mortality due to shrimp trawl had to be given priority over other causes of sea turtle deaths; Pakistan pointed out that IUCN also listed as a priority action item the facilitation of "integrated management through regional and international cooperation and coordination". [132]

82. Thailand submitted that other forms of fishing and fishing for other species were, in some places, more directly related to incidental sea turtle deaths. For example, the 1990 report cited by the United States, noted that turtle strandings increased in North Carolina when flounder trawling was active.[133] In fact, in implementing regulations requiring the use of TEDs for the Virginia and North Carolina summer flounder bottom trawl fishery, the responsible US government agency noted that "bottom trawl nets fished without TEDs for summer flounder can capture sea turtles at a rate comparable with that of shrimp trawl nets fished without TEDs along the southern US Atlantic coast".[134] The United States apparently based its regulations on threats that existed in and near the United States and then generalized those threats to the rest of the world. However, in Thailand, shrimp trawl fisheries were not the major source of anthropogenic threats to sea turtles. In Australia as well, a 1990 study had concluded that trawl-induced turtle drowning did not represent an immediate problem for turtle populations.[135] More recent studies indicated that trawl-induced mortality of marine turtles in fisheries in Australia, Asia and Oceania was likely to be of less impact on sea turtle populations than other anthropogenic threats.[136] Thus, it was untrue that application of Section 609 to all shrimp exporting nations was necessary to prevent the extinction of sea turtles or that this measure was closely tailored to local conditions. In fact, this measure ignored significant differences in anthropogenic threats to sea turtles in different regions of the world. The statement that US shrimp fishermen were required to harvest shrimp in a manner that was safe for sea turtles was also incorrect. Presently, US shrimpers were permitted to use soft TEDs even though recent testing by the US government had found such TEDs ineffective at excluding turtles.[137]

83. Thailand submitted that, while the United States had demonstrated that shrimp trawling was the greatest human-induced threat to the US sea turtle population, it did not show that shrimp trawling was the greatest human-induced threat to sea turtle populations in other regions of the world, including Thailand and the Australo-Pacific region. With regard to Thailand, the sources cited by the United States generally seemed to concur that egg harvest was or had been the single, greatest human-induced threat to Thailand's sea turtle population. Other threats included loss of nesting beaches to

[132]IUCN (World Conservation Union), (1995), A Global Stategy for the Conservation of Marine Turtles, pp. 8-9.

[133]National Research Council, National Academy of Sciences, (1990), Decline of the Sea Turtles: Causes and Prevention, Washington D.C., p. 76.

[134]Sea Turtle Conservation; Restrictions Applicable to Fishery Activities; Summer Flounder Fishery -Sea Turtle Protection Area, 61 Fed. Reg. 1846 (24 January 1996).

[135]I.R. Pioner, R.C. Buckworth and A.N.M. Harris, (1990), Incidental Capture and Mortality of Sea Turtles in Australia's Northern Prawn Fishery, in Australian Journal of Marine and Freshwater Research, Vol. 41, pp. 97-110.

[136]Commonwealth Scientific and Industrial Research Organization (CSIRO), Division of Fisheries, (1996), Public Nomination of Prawn Trawling as a Key Threatening Process, Submission to Endangered Species Scientific Committee.

[137]Sea Turtle Conservation; Revisions to Sea Turtle Conservation Requirements; Restrictions to Shrimp Trawling Activities, 61 Fed. Reg. 66, 933 (19 December 1996).

development, marine pollution, and fishing for both fish and shrimp by a variety of means. A 30 -year Night-Trawled Monitoring Surveys uncovered no evidence of incidental turtle deaths in shrimp trawl fisheries conducted in Thai waters or by Thai vessels. [138] Since the reporting of incidental taking of sea turtles in shrimp trawl operations had become mandatory in Thailand, there had been no reported instances of incidental takings. A report cited by the United States noted that "[t]rawling is concentrated primarily in the relatively shallow waters near shore in both temperate and tropical zones. Many of the most intensively trawled waters are adjacent to major sea turtle nesting beaches or feeding grounds". [139] However, as noted in Status of Marine Turtles in Thailand, the Fisheries Act of 1972 prohibited commercial fishing in Thai waters within 3 kilometres of the coastline. [140] Furthermore, most sea turtles in Thailand inhabited coral reefs and grassy areas where trawling operations were impractical. This could be the reason why there was no direct evidence of incidental takings of sea turtles in shrimp trawl operations in Thailand. On information and belief, gill netting near nesting areas, egg poaching, long -line hook fishing and fishing for other fish species had historically constituted more serious anthropogenic threats to sea turtles in Thai waters than shrimp trawl fisheries [141] (gill netting near nesting areas was now banned in Thailand, egg poaching had been eliminated in sanctuary areas but remained a problem elsewhere). Even the United States appeared to concede that other forms of fishing, besides shrimping, could have been a cause of the decline in turtle populations in Thai waters since the 1950's, when attributing the decline to "heavy fishing activities, including trawling". For instance, a document cited by the United States, which noted declines in the stock of both olive ridleys and leatherbacks in the Andaman Sea area of western Thailand, clearly stated that the observed declines were a result of long -term excessive egg harvest. [142] Another document exhibited by the United States revealed that of the four separate locations studied along Thailand's west coast, trawling was noted as a factor in only one area, and only in conjunction with two other causes of sea turtle mortality: egg collection and gill nets. In the other three areas, the major human-induced threat to sea turtles was egg poaching, with gill nets and long lines identified as the fishing gear which posed additional threats. [143] A third study produced by the United States concluded that declines in sea turtle populations in the areas studied were likely to be due to excessive egg collection and adult mortality in fishing gear, but did not identify shrimp trawls as a primary source of mortality. [144] The US measures, therefore, failed to consider that in other nations sustenance harvesting of eggs and turtles, which was not a factor in the United States, might be the greatest human threat to sea turtle life and longevity.

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[138] The Night-Trawled Monitoring Surveys During 1967-1996, (1997), Marine Fisheries Division, Department of Fisheries.

[139] H.O. Hillestad et. al., (1982), Worldwide Incidental Capture of Sea Turtles, in Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., p. 491.

[140] S. Chantrapoornsyl, (1997), Status of Marine Turtles in Thailand, Phuket Marine Biological Center, p. 6.

[141] Bhatiyasevi et. al., (1997), Night Trawled Monitoring Surveys; S. Chantrapoornsyl, (1997), Status of Marine Turtles in Thailand, Phuket Marine Biological Center, p. 6; C. Limpus, (1995), Global Overview of the Status of Marine Turtles: A 1995 Viewpoint, Queensland Department of Environment and Heritage. Thailand noted that, although the Chantrapornsyl study stated that trawling was one cause of incidental sea turtle deaths in some identified areas of Thailand, it did not distinguish between shrimp trawling and other forms of fish trawling. The Night Trawled Monitoring Survey was the only survey to specifically identify the incidence of sea turtle mortality arising from shrimp trawling and it found none. Moreover, in several areas of Thailand, trawling was not even mentioned by the Chantrapornsyl study as a cause of significant sea turtle mortality. The Limpus study mentionned egg poaching as a the single cause of a significant decline in nesting olive ridley sea turtles in the Andaman Sea.

[142] C.J. Limpus, (1995), Global Overview of the Status of Marine Turtles: A 1995 Viewpoint, Biology and Conservation of Sea Turtles, K.A Bjorndal ed., pp. 606-609.

[143] S. Chantrapoornsyl, (1997), Status of Marine Turtles in Thailand, Phuket Marine Biological Center.

[144] E. Stuart and M. Carlin, (1994), Conservation of Sea Turtles at Two National Parks on the Andaman Sea Coast of Thailand, Marine Turtle Newsletter, No. 67.

84. Regarding India, the United States noted that five different species of sea turtles were reported to nest on Indian beaches. Scientific literature dating back two decades found that for each of these species, "their populations are believed to be declining steadily everywhere". [145] More recently, the Northern Indian Ocean Sea Turtle Workshop, held in Bhubaneswar, India in January 1997, adopted "A Marine Turtle Conservation Strategy and Action Plan for the Northern Indian Ocean". That document, in addition to recommending the use of TEDs in trawl fisheries where necessary[146], confirmed the "alarming decrease" in each of the nesting populations of species of sea turtles in question:

> "Historically, the Northern Indian Ocean (NIO) has supported large populations of sea turtles ... Although the world's largest nesting population of two species, the loggerheads of Oman and the olive ridleys of Gahirmatha, India, are found in the NIO, once abundant populations of hawksbill, leatherback and green turtles have decreased alarmingly in most areas ... Even the olive ridleys nesting at Gahirmatha are sustaining significant fishing-related mortality, and olive ridleys elsewhere are in serious decline. As fishing activities continue to increase rapidly in the Indian Ocean, these interactions are expected to increase". [147]

85. Thus, if current fishing practices and patterns continued, even the olive ridley population nesting at Gahirmatha was not safe. Several scientific reports supported this conclusion. A report prepared by Dr. Mohanty-Hejmadi of Uktal University in Bhubaneswar, India concluded that the drowning of sea turtles at Gahirmatha during breeding season due to mechanized boats, including trawlers, had become a "major threat" to these species. [148] Further evidence of the threat to the olive ridleys of Gahirmatha from trawl fisheries was provided in the Country Report: India - Sea Turtle Status, Conservation and Management in India: "[n]ear shore mechanized fishing results in the mortality of [a] large number of sea turtles along the Indian coast. More than 5,000 dead olive ridley sea turtles were counted along the 480 km long Orissa coast during a six month survey in 19 94. These deaths were due to accidental capture in trawl nets". [149] Even more troubling scientific evidence had emerged. As stated by an authority on sea turtle biology, ecology, and conservation:

> "Female [olive ridley sea turtles] generally emerge on Gahirmatha Beach twice during the nesting season. Recent estimates of the size of this nesting aggregation have been as high as 600,000 turtles. In the most recent nesting season (December 1996 through March 1997), there were no large mass emergences and only an estimated 20,000-40,000 turtles emerged to nest on Gahirmatha.

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[145]C.S. Kar and S. Bhaskar (1995), Status of Sea Turtles in the Eastern Indian Ocean, in Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., p. 365.

[146]IUCN (World Conservation Union), (1997), A Marine Turtle Conservation Strategy and Action Plan for the Northern Indian Ocean, p. 11.

[147]Ibid., p. 1.

[148]P. Mohanty-Hejmadi, (1994), Biology of the Olive Ridleys of Gahirmatha, Orissa, India, in Proceedings of the Fourteenth Annual Symposium of Sea Turtle Biology and Conservation, p. 90. The United States indicated that the same author was one of the principal organizers of the TEDs workshop held in Paradeep and had signed the recommendations adopted at that workshop that "the use of TEDs should be made mandatory and a proper and effective monitoring system developed" in areas where shrimp trawling was permitted (Recommendations of the Training-Cum Demonstration Workshop on Turtle Excluder Device (TED), held at Paradeep, Orissa, 11-14 November 1996.

[149]B.C. Choudhury, (1997), Country Report: India - Sea Turtle Status, Conservation and Management in India, p. 2.

> "A declining trend in the Indian Ocean olive ridley nesting population appears imminent and is likely due to the indirect capture and mortality of turtles in fisheries, particularly the shrimp fishery (bottom trawling from mechanized vessels) ... For the past 10 years, researchers working on the Orissa coast have documented annually hundreds to thousands of turtle corpses stranded on beaches during the reproductive season...
> "Researchers have noted a temporal and spatial correspondence between shrimp fishing activity and sea turtle strandings, demonstrating a correspondence between the two events.
> "If shrimp fishing overlaps with areas in which olive ridley turtles are densely aggregated, thousands of turtles may be captured and killed by only a few vessels in a very short time period. The likelihood of this scenario is increasing as India expands its commercial shrimp fishery by building jetties and harbours for mechanized vessels along its east coast.
> "Ironically, one of the ports recently built is located adjacent to Gahirmatha Beach". [150]

86. Finally, the 1995 report on the Global Overview of the Status of Marine Turtles cited above found that the nesting population of olive ridleys in Orissa had "in recent times been under threat of incidental mortality" particularly from gillnet and trawl fisheries. Moreover, that report concluded, "there are no demonstrated recovering populations" of olive ridleys anywhere, including in India". [151] In short, all species of sea turtles nesting on Indian beaches, including the olive ridley, had declined alarmingly. All species, including the olive ridley population that nested at Gahirmatha were in danger from incidental mortality in shrimp trawl nets; far from improving the protection of this endangered species, India was building fishing ports to support more shrimp trawling without TEDs, including a port adjacent to Gahirmatha Beach. Responsible Indian officials understood the problem and agreed that use of TEDs was the best and only way to conserve sea turtles. [152]

87. In an answer to a question by India regarding the effectiveness of TEDs in protecting sea turtles in Indian waters, the United States indicated that it had tested the effectiveness of TEDs in all types of fishing environments and conditions. While there could be some differences in bottom conditions, such as variances in the nature and amount of natural debris, and weather conditions may vary, shrimp trawling was essentially the same throughout the world. The nets were set, trawled along the bottom and hauled in the same manner. All shrimp trawl net were very fine meshed in order to capture and retain small fisheries resources such as shrimp. They all had extremely high catch rates of non-target species, or bycatch, because a shrimp trawl would capture and retain every creature it came into contact with, unless that trawl net was fitted with a TED or other bycatch reduction device. Likewise, interactions between shrimp trawls and sea turtles were the same throughout the world. Sea turtles were found in the same general habitats and fed on the same types of food throughout the world. Their feeding habits and habitats put them in the direct path of shrimp trawls where they were captured. The United States had tested and towed several trawl nets equipped with TEDs when it had conducted training workshops in Cuttack, Orissa, in November 1996 and Kochi, Kerala, in May 1997. These trawl nets had been towed along side "naked nets" or nets not equipped with TEDs to compare shrimp catch and rates of shrimp loss. The TEDs had been found to be as effective as when towed in US waters.

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[150] Affidavit of Pamela Plotkin, Ph.D., 22 July 1997, document submitted by the United States to the Panel, paragraphs 5-7. The United States noted that Dr. Pamela Plotkin had spent the past 15 years on research focused on the biology, ecology and conservation of sea turtles, and had worked during the last 3 years in India in collaboration with Indian academic, non-governmental and government scientists and with government resource managers responsible for the conservation of sea turtles in Indian waters. Ibid., paragraphs 2-3.

[151] C.J. Limpus, (1995), Global Overview of the Status of Marine Turtles: A 1995 Viewpoint, in Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., p. 606.

[152] Affidavit of Pamela Plotkin, Ph.D., 22 July 1997, document submitted by the United States to the Panel, paragraph 8.

88. Regarding Malaysia, the United States submitted that the Country Report for Malaysia revealed that, while the peak sea turtle nesting season in Malaysia occurred during August-October in Sabah and during June-July in Terengganu, Sarawak and most of the other states, in fact sea turtle nesting in Malaysia occurred "throughout the year". [153] The same report provided evidence that sea turtles did in fact remain in Malaysian waters after nesting: "observations of green turtles feeding over sea-grass beds have been reported along the west coast of Sabah, near Sandakan and at Sipadan Island, Sabah". [154] The scientific literature identified trawling as a significant source of mortality for sea turtles in Malaysian waters. A document submitted by Malaysia discussed the high rates of incidental sea turtle capture in Malaysia's shrimp fishery. [155] In interviews with Malaysian fishermen on the subject of incidental capture of sea turtles in fishing gear in Terengganu, 68 per cent of the fishermen who used trawl nets had reported incidental captures of sea turtles. The interviewer estimated that Malaysian trawlers had the potential to capture an average of 742 sea turtles per year. Moreover, the sea turtles captured in trawl nets almost always drowned before they could be released. The report summarizing these interviews noted, as the United States had pointed out, that "turtles caught in trawls have very little chance of survival because the nets are dragged for long hours along the sea bottom". The interviews also revealed that the fishermen caught sea turtles at different times of the year, calling into question any purported effectiveness of seasonal prohibitions on trawling that Malaysia claimed to have instituted. Given the precipitous decline in sea turtle populations in Malaysia, this level of incidental take represented a serious threat to the continued existence of sea turtles in Malaysia. Most importantly, these interviews showed that "the incidental capture of sea turtles in fishing gear in Terengganu waters is common, and contributes significantly to the mortality of sea turtles. ... The figures are alarmingly high when compared with the number of nestings recorded for each species, and it can be seen that fishing nets have the potential of quickly decimating the current populations of sea turtles". [156]

89. The United States believed, therefore, there was evidence that Malaysia had not, as it claimed, effectively prevented trawling in certain areas during certain periods of the year. A study had found that while fishing activities were reduced between October and February, some prawn trawling occurred during this period. The same study also reported that incidental capture of turtles was reported from March through September with greater numbers occurring April through July, months coinciding with the nesting season. [157] 1992 Malaysia Fisheries Statistics published by the Malaysia Department of Fisheries demonstrated that prawns were landed in Malaysia every month of the year, indicating that there was shrimp trawling year round in Malaysian waters. Even assuming

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[153]Country Report for Malaysia, presented at the Northern Indian Ocean Sea Turtle Workshop and Strategic Planning Session 13-18 January 1997 in Bhubaneswar, Orissa, India, p. 4.

[154]Ibid., p. 3.

[155]M.S. Suliansa, et. al., (1996), Impact of Fishery Related Activities on Sea Turtles, paper presented at the National Seminar/Workshop on Marine Turtle and Terrapin Management, 22-23 October 1996, Cherating, Malaysia.

[156]E.H. Chan et. al, (1988), The Incidental Capture of Sea Turtles in Fishing Gear in Terengganu, Malaysia, Biological Conservation, No. 43, pp. 1-7. The United States also referred to J.A. Mortimer, (1990), Marine Turtle Conservation in Malaysia, Proceedings of the Tenth Annual Symposium of Sea Turtle Biology and Conservation, p. 21; S.K. Tow and E. Moll, (1995), Status and Conservation of Estuarine and Sea Turtles in West Malaysian Waters, Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., pp. 339-347; H.C. Liew, (1997), Country Report for Malaysia, paper presented at the Norther Indian Ocean Sea Turtle Workshop and Strategic Planning Session, Bhubanseswar, Orissa, India, 13-18 January 1997, p. 5 ("Sightings and strandings of dead turtles along the Malaysian coast still occur, many with clear indications that they had entangled in nets and ropes from fishing gears. Though some stranding records are available, they are generally incomplete and largely underestimate the number of turtles acutally killed in fishing gears").

[157]E.H. Chan, H.C. Liew and A.G. Mazlan, (1987), The Incidental Capture of Sea Turtles in Fishing Gear in Terengganu, Malaysia,Fisheries and Marine Science Center, Universiti Pertanian Malaysia.

that Malaysia had effectively prevented trawling during certain periods of the year, sea turtles nested throughout the year on Malaysian beaches and on beaches of other countries throughout the region. [158] These sea turtles were subject to incidental mortality in trawl nets whenever they swam in waters near the Malaysian nesting beaches. [159] Finally, sea turtles did not, as Malaysia claimed, immediately leave Malaysian waters after nesting. Rather, many remained in these waters where, again, they were subject to incidental mortality in trawl nets. Other species of sea turtles, besides green sea turtles, which had distinct nesting seasons were also at risk of being accidentally captured in shrimp trawl in Malaysian waters. Coastal waters provided habitat that supported immature sea turtles and even some adults that stayed in waters close to shore and did not migrate back to feeding grounds. Malaysia itself had admitted to estimates of approximately 1,000 annual sea turtles mortalities from incidental capture in fishing gear. Finally, on only the second day of the tests in Malaysia, a TED-equipped trawl captured a "mature hawksbill turtle", demonstrating the likelihood that shrimp trawl nets in Malaysia were capturing sea turtles regularly. [160]

90. The United States disagreed with Malaysia's premise that sea turtles were being killed by the nets of fish trawlers as opposed to shrimp trawlers. The trawl gear commonly used to harvest shrimp in the United States and in the complainants' waters - namely otter trawls - also caught different species of fish, other marine life (such as sea turtles), debris and virtually any other matter with which it came in contact. Other types of fishing gear also killed sea turtles, but on a scale that paled in comparison to the incidental mortality of sea turtles in shrimp trawl nets. The US National Academy of Sciences comprehensive analysis of the issue had showed that the incidental mortality of sea turtles in shrimp trawl nets was the greatest human-induced threat to sea turtles, greater than all other human-induced causes combined. As early as 1982, it had also been recognized that shrimp trawlers killed more sea turtles than any other form of fishing gear. Regarding Malaysia's claim that sea turtles were not at risk from shrimp trawl in its waters because they did not have species that ate shrimp, the United States noted that olive ridley did eat shrimp. More importantly, this claim revealed a fundamental misunderstanding about the relationship of sea turtles and shrimp fisheries. Sea turtles were caught in shrimp trawl nets because they were found in the same warm water habitats as shrimp, not because they ate shrimp. This was true of all species of sea turtles.

91. Regarding Pakistan, the United States responded that the method by which Pakistani fishermen retrieved their shrimp trawl nets did not protect sea turtles. The longer a trawl net remained in the water, the more it would fill and the heavier it would become. Generally speaking, fishermen who pulled in their nets by hand had to do so more frequently than those who used mechanical devices (such as winches) to pull in their nets, because such mechanical devices lent more power. However, where large crews worked together on a single vessel, their combined strength allowed them to tow their nets as long as vessels with mechanical devices for net retrieval. Trawl nets that fishermen retrieved by hand were no different from trawl nets that were retrieved by mechanical means with respect to the likelihood that they would catch sea turtles. However, the longer the nets remained in the water, the more likely it was that sea turtles caught in the nets would drown. A comprehensive study issued by the US National Academy of Sciences had found that "the mortality

[158]H.C. Liew, (1997), Country Report for Malaysia, paper presented at the Northern Indian Ocean Sea Turtle Workshop and Strategic Planning Session, Bhubanseswar, Orissa, India, 13-18 January 1997, p. 3.

[159]The United States noted that the "time and area closures" Malaysia claimed to have instituted were, in any event, of doubtful utility in protecting sea turtles. See Statement of Deborah Crouse, Ph.D., 23 July 1997, paragraph 14 ("time and area closure are also ineffective since closures only protect the large juvenile or adult turtles while they are in the area enclosed, or during the time when the shrimping is banned and not at other times or places").

[160]Ibid., p. 9.

of sea turtles caught in shrimp trawls increases markedly for tow times greater than 60 minutes". [161] Vessels with small crews who had to pull in their nets by hand at least once per hour could release captured sea turtles before they drowned. Such vessels thus represented a markedly lower threat to sea turtles than either vessels with mechanical devices for net retrieval or vessels with large crews who could retrieve their nets that were towed for more than one hour. Pakistan used shrimp trawl vessels with very large crews that were capable of towing their nets for periods far in excess of one hour. At the Northern Indian Ocean Sea Turtle Workshop in January 1997, Fehmida Firdous, the Project Officer of Pakistan's Sindh Wildlife Department, reported that her country had thousands of vessels trawling with very large nets that remained in the water for 2 hours. These vessels therefore posed as great a danger to sea turtles as vessels with nets that were retrieved by mechanical means. Indeed, Ms. Firdous stated at that Workshop that Pakistani fishermen admitted that sea turtles were caught and drowned in those nets. She identified incidental mortality in shrimp trawl nets as a significant threat to Pakistan's sea turtle populations. The only known way to avoid this danger was through the use of TEDs.

92. The United States declared that The Night-Trawled Monitoring Surveys 1967-1996 referred to by Thailand did not demonstrate that there had been no observed incidental sea turtle captures or mortalities in connection with shrimp trawl fishing in Thailand. Rather, this document apparently had not been designed to provide the information upon which Thailand relied in this case: it had collected data only on the target catch (shrimp) and the bycatch of other "edible marine resources", including fish, invertebrates and cephalopods. The Monitoring Surveys did not provide data on the bycatch of "non-edible marine resources" in shrimp trawling. Since sea turtles were not eaten in Thailand, they would be considered "non-edible marine resources", and thus outside the scope of the surveys. [162] The otter trawls used in Thailand, as described in the Monitoring Surveys, were an extremely non-selective type of fishing gear. The mesh of these nets was extraordinarily small, so as to retain animals as small as shrimp. The Monitoring Surveys demonstrated just how non-selective this gear was: the bycatch of "trash fish" was reported as 67 per cent of the catch in the Gulf of Thailand and 43 per cent in the Andaman Sea. It was simply inconceivable that such gear would not also catch sea turtles when used at times and in areas where sea turtles occurred. And, in fact, the data showed that sea turtles did occur at the same time and in the same areas as such gear was used by Thai vessels. Available scientific studies showed conclusively that, at least until Thailand adopted a TEDs programme, sea turtles were being drowned in shrimp trawl nets in Thai waters. The Status of Marine Turtles in Thailand study found that "the main threat to sea turtles" in the Prathong Island area of Thailand was "the heavy fishing activities, trawling and gill nets". [163] Similarly, the study commissioned by Thailand's Office of Natural Resource Conservation specified that the "indirect take in fishing gear (e.g. trawlers, driftnets, purse seines) also plays a significant role" in the threat to sea turtle survival in Thailand [164], while another scientific analysis reported that the "dramatic decline in the number of turtles nesting" in two national parks in Thailand was due, in part, to "high adult

[161] National Research Council, National Academy of Sciences, (1990), The Decline of Sea Turtles: Causes and Prevention, Washington D.C., p. 145.

[162] The United States noted that the "Abstract" to the Monitoring Surveys, which appear in a different type-face from the rest of the study, contained the following final sentence: "Besides, the monitoring surveys at night-time never obtain any sea turtle in the catch". The United States noted that this sentence bore no relationship either to the remainder of the paragraph in which it appeared or to the document as a whole.

[163] S. Chantrapoornsyl, (1997), Status of Marine Turtles in Thailand, Phuket Marine Biological Center, p. 5.

[164] S. Settle, (1995), Status of Nesting Populations of Sea Turtles in Thailand and Their Conservation, in Marine Turtle Newsletter, No. 68, p. 9.

mortality in fishing gear offshore". [165] Perhaps the most revealing evidence, however, was provided by Thai fishermen themselves. Interviews conducted with these fishermen by an independent researcher testified to the "drastic deterioration" of the sea turtle's situation in Thailand and the destruction wrought by trawl vessels: "[t]he large number of trawler boats fishing too close to shore ... sweep away all the marine life of all sizes including sea turtles". [166] During a TEDs training workshop held by the United States Government in Songkla, Thailand, Thai fishermen also admitted to officials of the US National Marine Fisheries Services that they caught sea turtles in their trawl nets. The United States concluded scientific evidence showed that shrimp trawling killed alarming numbers of sea turtles in the complainants' waters, as it did everywhere that shrimp trawling was conducted without TEDs in areas where sea turtles were found in the shrimp grounds. A document produced by Malaysia confirmed that "worldwide, the shrimp trawling industry seemed to capture more sea turtles than any other commercial fishery. ... Many of the most intensively trawled waters are adjacent to major sea turtle nesting beaches or feeding grounds". [167] In any event, the justification for the US measures at stake did not depend on shrimp trawling being the single greatest cause of sea turtle mortality in the waters of the complainants.

93. The United States recognized that trawlers in the summer flounder fishery captured sea turtles at a rate comparable to those in the shrimp fishery (though the overall impact to sea turtles was much less significant as fishing effort in the summer flounder fishery paled in comparison to the shrimp fishery). Because these trawlers could capture sea turtles at a comparable rate to the shrimp fishery, the United States required the use of TEDs in the summer flounder fishery from North Carolina to Southern Virginia and required that observers be placed on these trawlers as far north as New York to ascertain whether TEDs should be required elsewhere in this fishery.

94. India maintained that at Gahirmatha the nesting population of olive ridley had increased over the past ten years. Although some sea turtles were accidentally drowned by fishing activities in this area, Indian experts had opined that the population nesting at Gahirmatha "has not been affected by these activities". [168] Any US concern for the protection and conservation of this endangered species in India should have taken such expert opinion into account before the imposition of import restrictions. The claim that "the greatest human related cause of sea turtle mortality is drowning in shrimp trawl nets" was true only for the case of the United States, and could not be applied to India and universally to the whole world. Indian scientific studies [169] established that in India, the greatest human related cause of sea turtle mortality was the direct exploitation of adult live olive ridley sea turtles, to the tune of 50,000 to 80,000 every season in the late 1970s and early 1980s from their mating and breeding grounds, i.e. near shore and offshore areas of the Gahirmatha coast. Timely and effective steps taken by India under the Wildlife (Protection) Act 1972, implemented and enforced by the Indian Navy,

[165]E. Stuart and M. Cartin, (1995), Conservation of Sea Turtles at Two National Parks on the Andaman Sea Coast of Thailand, in Marine Turtle Newsletter, No. 67, p. 6.

[166]G. Hill, (1992), The Sustainable Sea Turtle, in Marine Turtle Newsletter, No. 58, p. 3. According to the United States, this publication also made clear that sea turtles were found in the "open sea" in Thailand, thus refuting a claim made by Thailand that sea turtles were found only in "coral reefs and grassy areas."

[167]H.O. Hillestad et. al., (1982), Worldwide Incidental Capture of Sea Turtles, Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., p. 491.

[168]P. Mohanty-Hejmadi, (1994), Biology of the Olive Ridleys of Gahirmatha, Orissa, India, in Proceedings of the Fourteenth Annual Symposium of Sea Turtle Biology and Conservation, p. 90.

[169]M.C. Dash and C.S Kar, (1990), The Turtle Paradise - Gahirmatha, Interprint, chapter 7; C.S. Kar and G.S. Padhi, (1992), Biology, Life History and Conservation Strategy of the Olive Ridley Sea Turtles in Orissa, Oriforest, Vol. 1, No. 2, pp. 36-40.

Indian Coast Guard and the various law enforcing agencies of the concerned State Governments, had largely controlled this greatest human related cause of sea turtle mortality gradually since the mid-1980s.[170] The Gahirmatha sea turtle population represented in total aggregate about 50 per cent of the total world population of olive ridley sea turtles, and numerically about 80 per cent of all sea turtles found in Indian territorial waters. In this context, India took exception to the effort of the United States to imply that India was only focusing its efforts on one species of endangered sea turtle on one beach. Of the five species of endangered sea turtles found in India, no commercial exploitation now existed in Indian territorial waters regarding the leatherback and the loggerhead sea turtles. With regard to the hawksbill sea turtles, trade had been eliminated several years ago. Even juvenile hawksbill turtles were recorded in different areas of the Orissa coast during the last ten years, indicating that feeding and developmental habitats existed for this species in areas of breeding grounds of olive ridleys, which were protected by law. Exploitation of green sea turtles had also been eliminated from the early 1980s. Thus, it would be clear to the Panel why India had chosen to focus on the only species of sea turtle which might appear relevant in this case, namely, the olive ridley sea turtle, which mainly nested on one area, Gahirmatha. Due to the conservation measures in India, two new mass nesting areas of olive ridley sea turtles (Devi and Rushikula rookeries) had been located recently. The breeding grounds in front of these rookeries had also been given legal protection. India's action was in accordance with the sea turtle conservation policy and action projects adopted in the Sea Turtle Conservation Strategy of the World Conference on Sea Turtle Conservation held from 26-30 November 1979 at Washington, D.C.

95. India submitted that the literature cited by the United States regarding the populations of sea turtles nesting on Indian beaches related to the situation in the late 1970s and contained no data from the period after 1980. No judgement could be made on population status unless data was obtained for all the species. Since there was no commercial exploitation of turtles in India any more, the populations might have improved instead of declining. The experts who had met at the Northern Indian Ocean Sea Turtle Workshop in January 1997 agreed that there was an urgent need for updating data on sea turtle populations in the Northern Indian Ocean. Further, recognising the status of sea turtles in Indian coastal waters, the Government of India and concerned State Governments had taken necessary protection and conservation measures for the eggs, hatchlings and adults covering all the stages of the life cycle. As an example, trade in tortoise shell relating to endangered hawksbill sea turtles had been totally stopped and after 1980 there had been no documented evidence of any trade of hawksbill sea turtles from India. The capture, killing and exploitation of green sea turtles in the local markets of Tamil Nadu State in India had been completely stopped, and there was no record of such exploitation after 1980. Since 1975, the protection of sea turtles in Gahirmatha had been extensively documented. Such protection had been extended even to the coastal estuarine tidal mangrove forest eco-systems, which were linked to the food chain of the sea turtles. The effectiveness of India’s conservation and protection measures had been proved and acknowledged.

96. India disagreed with the concern expressed by the United States regarding the absence of "large mass emergences" at Gahirmatha. The "authority" referred to by the United States had not done any work in India, and since she was not familiar with the mass nesting behaviour of the Gahirmatha population, she would not know that the lack of mass nesting behaviour in some years was a feature of the Gahirmatha olive ridley population. Scientific studies over the last two decades indicated that there had been no mass nestings in earlier years either, such as in 1981 -1982 and in 1987-1988. Although the reasons for such behaviour was not yet known, the fac t remained that this

[170]C.S. Kar and G.S. Padhi, (1992), Biology, Life History and Conservation Strategy of the Olive Ridley Sea Turtles in Orissa , Oriforest, Vol. 1, No. 2, pp. 36-40.

had not affected the population, as recorded in the literature referred to by the United States itself. [171] India would, therefore, not accept the veracity of the views contained in the affidavit referred to by the United States[172], especially since the authority quoted admitted herself that her views were based on her discussions with Indian sea turtle experts or published material. Further, India was not aware of any work done on Indian sea turtles by the expert referred to by the United States. The material provided by the United States on India was based on speculation by experts who had not done any work on Indian sea turtles. Therefore, such material could not be used as a factual basis for any determination. Moreover, India did not have any exclusive shrimp trawlers, as referred to by the authority quoted by the United States. The fishing vessels used in India for shrimp harvesting were quite different from the exclusive shrimp trawlers used in the United States. Therefore, the possibility of capture and death of thousands of sea turtles by a few vessels was unlikely. The information given by the United States regarding the recent building of a port adjacent to Gahirmatha was incorrect. What was referred to as a port was probably the Tachua Jetty, which had not been commissioned due to objections from Indian sea turtle experts and environmentalists. This demonstrated the importance the Government attached to environmental issues. India disagreed with the reference that there were no demonstrated recovering populations of olive ridleys anywhere, including in India. As demonstrated in a document produced by the United States [173], the olive ridley sea turtle population in Gahirmatha in India had in fact stabilized. India had one of the best records as far as conservation and preservation of all aspects of the life cycle of endangered sea turtles was concerned. In fact, India had taken a leading role in organizing national, regional and international meetings and conferences aimed at the protection and conservation of sea turtles. The affidavit submitted by the United States should not be accepted by the Panel, since there was no record of the competent Indian authorities having agreed that TED was the best and only way to conserve sea turtles. In fact, TEDs had not been sufficiently tested in Indian territorial waters to judge their effectiveness, and it would be incorrect to argue that competent Indian authorities had already agreed that these were the best and only way to conserve sea turtles. The demonstration of TEDs referred to by the United States in paragraphs 3.61 and 3.112 could not be taken as adequate, since the demonstration was at sea, had been limited in duration to a single day, which could not be scientifically used to come to the conclusion reached by the United States that TEDs were found to be as effective as when towed in US waters. On the contrary, it established that: (i) TEDs had to be adapted to Indian conditions; (ii) TEDs needed to be tested for a sufficient length of time in Indian waters before India could make any claims regarding their effectiveness; (iii) TEDs were still at an experimental stage in India.

97. India noted that the study prepared by IUCN (World Conservation Union) purporting to show that TEDs were required to protect sea turtles in India had actually been co -sponsored by the US Marine Fisheries Service and had been issued following a workshop held in India in January 1997, which was more than seven months after the embargo had been imposed. Thus, it was apparent that views presented in this paper and at the workshop had not been relevant to the US decision to impose the embargo and represented nothing more than a post hoc rationalization to justify the US measures. India disagreed with the US statement that "that document, in addition to recommending the use of TEDs in trawl fisheries where necessary, confirmed the 'alarming decrease' in each of the nesting species". In this context, India was of the view that the United States had combined two different

[171] P. Mohanty-Hejmadi, (1994), Biology of the Olive Ridleys at Gahirmatha, Orissa, India, Proceedings of the Fourteenth Annual Symposium of Sea Turtle Biology and Conservation, p. 90.

[172] Affidavit of Pamela Plotkin, Ph. D, 22 July 1997, document submitted by the United States to the Panel.

[173] P. Mohanty-Hejmadi, (1994), Biology of the Olive Ridleys of Gahirmatha, Orissa, India, Proceedings of the Fourteenth Annual Symposium of Sea Turtle Biology and Conservation, p. 90.

ideas from two different sections of a document [174], one regarding the recommendations about TEDs, and the other from the introduction, thereby conveying an unfortunate and inappropriate cause-and-effect impression. India noted that under the section "[r]esearch and [m]onitoring" of the IUCN study, 10 issues had been identified, of which the first one was "[i]ncomplete data on turtle nesting and feeding habitats in 9 NIO countries". Similarly, the tenth issue was "[i]ncomplete data on accidental mortality in fishing gear, including trawl nets, long lines, drift nets, purse -seines, gill nets and other fishing methods such as dynamite fishing". It might be noted that there was incomplete data to come to any conclusion about the need for TEDs. Moreover, it was under the tenth issue that 6 recommendations had been adopted. The first recommendation was "[a]ssess mortality of sea turtles interacting with high seas long line fisheries, assess turtle by catch by artisanal fisheries and assess the degree to which trawlers and long liners threaten turtles in an NIO". It was only the fifth recommendation that spoke of promoting the use of TEDs for trawl fisheries where necessary.

98. Malaysia replied that the portion of the report cited by the United States [175] to argue that nesting of sea turtles in Malaysia occurred "throughout the year" applied only to green turtles and not to all species. Sea turtle nesting in Malaysia being seasonal, Malaysia reiterated that limiting the shrimp trawling season in Terengganu to the months of November to February when turtles had left the Malaysian waters to return home to their distant feeding grounds was effective in protecting sea turtles, as clearly shown in the document cited by the United States. [176] Malaysia also disagreed with the US contention that sea turtles remained in Malaysian coastal waters at the end of the nesting season; it was a basic fact in sea turtle biology that after the completion of the nesting season, turtles performed long-distance migrations to return to distant feeding grounds where they took residence until the next breeding season. The scientific literature cited by the United States to show that trawling was a significant source of mortality for sea turtles was quoted out of context: trawl nets referred to in these studies [177] were mainly fish trawls and not shrimp trawls. This had been confirmed by a later survey whose results showed "driftnets, with mesh sizes exceeding 18 cm (or locally known as "pukat pari"), to be most destructive to marine turtles compared to four other types of fishing gears". [178] The 1992 Malaysia Fisheries Statistics referred to by the United States were for the whole of Peninsular Malaysia, i.e. both east and west coast. The study cited [179] addressed incidental captures in Terengganu, located on the east coast of Peninsular Malaysia, where shrimp catch was very seasonal (from October to February) as shown by the 1994 Annual Fisheries Statistics of Malaysia. Data showed that nesting of green turtles, leatherbacks and olive ridleys in Terengganu

[174]IUCN (World Conservation Union), (1997), A Marine Turtle Conservation Strategy and Action Plan for the Western Indian Ocean, pp. 1 and 11.

[175]H.C. Liew, (1995), Country Report for Malaysia, paper presented at the Northern Indian Ocean Workshop and Strategic Planning Session, Bhubaneswar, Orissa, India.

[176]E.H.Chan, H.C. Liew and A.G. Mazlan, (1988), The Incidental Capture of Sea Turtles in Fishing Gear in Terengganu, Malaysia, Fisheries and Marine Science Center, Universiti Pertanian Malaysia, Table 2.

[177]E.H. Chan et. al, (1988), The Incidental Capture of Sea Turtles in Fishing Gear in Terengganu, Malaysia, Biological Conservation, No. 43, pp. 1-7; S.K. Tow and E. Moll, (1995), Status and Conservation of Estuarine and Sea Turtles in West Malaysian Waters, Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., pp. 339-347.

[178]I. Kamarrudin et. al., (1996), Status of Nesting Population and Related Research on Marine Turtles in Peninsular Malaysia, Paper presented at the First SEAFEDC Workshop on Marine Turtle Research and Conservation, 15-18 January 1996, Kuala Terengganu, Malaysia, p. 17.

[179]E.H.Chan, H.C. Liew and A.G. Mazlan, (1988), The Incidental Capture of Sea Turtles in Fishing Gear in Terengganu, Malaysia, Fisheries and Marine Science Center, Universiti Pertanian Malaysia.

was very seasonal.[180] The United States had therefore erroneously cited figures for one location and imposed it upon another location where conditions were different. Finally, studies had shown that incidental captures of green turtles in Malaysia in shrimp trawl nets did not occur all year round.[181] Malaysia further submitted that the United States misquoted information from published sources in several occasions. For instance, the study which, according to the United States, discussed the "high rates of incidental sea turtle capture in Malaysia's shrimp trawl fishery"[182] actually showed that in the entire 5 year period, 1991-1996, a total of 37 strandings of turtles had been reported, of which 9 were had been attributed to trawl nets. The author of the paper considered it was a high number. To the United States, where hundreds of turtles stranded every year, 37 strandings over 5 years was also "high". Malaysia was of the view that the term "high" was a relative and subjective matter and pointed out that the United States had given a figure of 30 loggerhead turtles being caught annually in the groundfish otter-trawl fishery in the Gulf of Maine and the Mid-Atlantic Ocean; however, there was no mention of TED requirements in this fishery. The same study stated that "there are no specific studies on incidental capture of sea turtles under the impacts of fishing related activities". Another document which the United States submitted to demonstrate that shrimp trawlers were considered to capture and drown more sea turtles worldwide than any other form of incidental capture[183] came from an analysis of captures which did not cover Asian waters.

99. Malaysia also disagreed with the US assertion that coastal waters provided habitat to immature sea turtles, which were then at risk of being incidentally captured in shrimp trawl nets. No data supported such assertion; satellite tracking had demonstrated that green turtles embarked on long-distance migrations to their feeding grounds once the nesting season was over.[184] Malaysia maintained that loggerheads and Kemp's ridleys were the species most at risk with respect to shrimp trawls since they fed on shrimp and, therefore, lived on shrimping grounds.[185] Contrary to what the United States asserted, all sea turtles did not occupy shrimping grounds. Shrimp trawling had been identified as one of the major threats to the survival of loggerheads and Kemp's ridleys, but there was no mention of shrimp trawling as a major threat for green turtles, hawksbill and leatherbacks.[186] Finally, Malaysia, noted that the capture of a mature hawksbill in a TED equipped trawl, referred to by the United States, occurred during the course of an experiment conducted with the purpose of demonstrating the effectiveness of TEDs for conservation purposes. To this end, the experiment was carried out in Zone A (0-5 nautical miles from the shore), i.e. an area which was off limits to trawling and where the probability of catching sea turtles was higher. However, if the experiment had been

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[180]I. Kamarrudin et. al., (1996), Status of Nesting Population and Related Research on Marine Turtles in Peninsular Malaysia, Paper presented at the First SEAFEDC Workshop on Marine Turtle Research and Conservation, 15-18 January 1996, Kuala Terengganu, Malaysia.

[181]Ibid.

[182]M.S. Suliansa, et. al., (1996), Impact of Fishery Related Activities on Sea Turtles, Paper presented at the National Seminar/Workshop on Marine Turtle and Terrapin Management, 22-23 October 1996, Cherating, Malaysia. The study stated that "mortality of sea turtles is recorded to be high in the Turtle Islands Park of Sabah during the shrimping season from November to April".

[183]H.O. Hillestad et. al., Worldwide Incidental Capture of Sea Turtles (1982), Biology and Conservation of Sea Turtles, K.A. Bjorndal ed., pp. 489-495.

[184]H.C. Liew, E.H. Chan, F. Papi and P. Luschi, (1995), Long Distance Migration of Green Turtles from Redang Island, Malaysia: The Need for Regional Cooperation in Sea Turtle Conservation, Proceedings of the International Congress of Chelonian Conservation, 6-10 July 1995, Confaron, France.

[185]Malaysia referred to the following study: Kemp's Ridley Sea Turtle (Lepidochelys kempii) Status Report, (1996), Report of the Marine Turtle Expert Working Group".

[186]National Research Council, Academy of Sciences, (1990), Decline of the Sea Turtles: Causes and Prevention, Washington, D.C.

conducted in Zone B (5-12 nautical miles from the shore), where traw ling was legally permitted, it was highly unlikely that any sea turtle would have been caught. Malaysia maintained that it had taken adequate measures to protect sea turtles from trawling, by prohibiting trawling in certain zones and by establishing offshore refuges for sea turtles where all harmful gear were banned.

100. Pakistan maintained that Pakistani shrimpers left their nets in the water for a duration of approximately 30 to 60 minutes. These tow times were in line with the tow time restrictions applicable to US shrimpers that did not retrieve their nets by mechanical means. The United States referred to a statement made by Ms. Fehmida Firdous at the Northern Indian Ocean Turtle Workshop to the effect that tow times common in Pakistani shrimp industries were up to two hours. Pakistan noted that, after this statement was made, Ms. Firdous had been asked by the Chairman of Pakistan Sea Food Industries Association to substantiate the basis of her claim. Ms. Firdous advised the Chairman that she had not conducted a study on her own and was unable to provide any other substantiation. Pakistan added that it had a programme to monitor the rate of turtle drowning in connection with shrimp trawl operations. This programme, which was administered by the Sindh Wildlife Department, gave strong incentive to report sea turtle drowning in connection with shrimp trawling. The Sindh Wildlife Department offered a cash reward of Rs. 1000, i.e. almost 50 per cent of average monthly income of a fisherman in Pakistan, to fishermen who gave the tag number of sea turtle caught in the fishing net. Since the programme had started, no fisherman had claimed this reward; thus, the incidental catch rate of sea turtles in shrimp trawling operations was presumed to be de minimis.

101. Thailand maintained it had demonstrated that a combination of strict protection of nesting beaches and an egg retrieval, incubation and release programme had been successful in stabilizing nesting sea turtle populations in protected areas. Indeed, as noted in a document submitted by the United States with respect to the Khram Island area, "[t]he fact that the nesting beaches have been protected for more than four decades is the logical reason for the relatively high number of nesting females seen there today".[187] Malaysia had also found that an egg retrieval, incubation and release programme was successful in increasing the number of nesting sea turtles after a 15-year gap during which the green turtles grew to sexual maturity. Indeed, a 1989 study in Malaysia concluded that, "[t]oday the turtle population [in Sarawak sanctuary area] has reached an equilibrium level. It will remain at this level if we continue to hatch and release young turtles at a high rate ...".[188] Regarding the argument made by the United States that the Monitoring Surveys were not designed to provide information on incidental catch of inedible species but rather were designed to collect data on the harvesting of shrimp and other edible marine creatures, Thailand stressed that all forms of catch had been recorded on the original study worksheets, edible and inedible. While only the quantities of edible catch had been included in published tables, a note to those tables indicated that the catch of inedible species and things, such as sea cucumbers, jellyfish, sea urchins, sand dollars, corals and sponges, had also been recorded in the study. If sea turtles had been caught, this fact would have been noted under the same methodology. However, the study turned up no incidence of the catch of sea turtles over a thirty-year period. Thus, the United States appeared to have erroneously extrapolated from conditions found along the coast of the United States in demanding that Thailand and other Members, where conditions were quite different, expended scarce resources to install TEDs in shrimp trawl nets. Other alternative means, involving less cost and significantly less disruption to shrimp trawl fisheries, had proven effective in stabilizing sea turtle populations in the area.

[187]S. Settle, (1995), Status of Nesting Populations o f Sea Turtles in Thailand and Their Conservation, Marine Turtle Newsletter, No. 68.

[188]Leh, (1989), The Green Turtle, Chelonia Mydas (L.), in Sarawak: Is There a Future?, Annual Symposium of the Malaysian Society of Marine Science.

102. The United States considered it had submitted scientific studies to the Panel which did show that shrimp trawling was a significant cause of sea turtle mortality in Indian waters. [189] A document submitted by Malaysia reported more than 5,000 strandings of olive ridley turtles along India's Orissa coast "due to accidental capture in trawl nets". [190] Direct exploitation of sea turtles was perhaps once the largest cause of sea turtle mortality in India and elsewhere in the region, but shrimp trawling was today a significant cause of such mortality in India [191] and in the waters of the other complainants. The scientific literature submitted by the United States confirmed that each population of sea turtles in India other than the olive ridley at Gahirmatha was in serious decline, and that even that population was in jeopardy. Even several documents submitted by Malaysia criticized the sea turtle protection efforts that governments had taken to date in the region. The trawl gear used in the United States and in India, as well as in the other complainants' countries, were the same basic "otter trawl" design, i.e. a gear allowing a net to be dragged along the sea bottom and captured virtually everything it encountered, including sea turtles. The United States maintained that Dr. Plotkin, whose affidavit was rejected by India, was a true expert in the field of sea turtle conservation and had worked in India for the past 3 years. Dr. Plotkin contradicted several of India's assertions, noting in particular that "[a] declining trend in the Indian olive ridley nesting population appears imminent and is likely due to the indirect capture and mortality of turtles in fisheries, particularly the shrimp fishery (bottom trawling from mechanized vessels)". [192] As to Malaysia's argument that limiting shrimp trawling to certain times of the year prevented incidental mortality of sea turtles, the United States noted that a chart established by the Government of Malaysia and showing landings of "marine fish", including shrimp, by month through 1995, showed that the quantities of shrimp landings varied very little month by month for each shrimp species. This called further into question the seasonal restrictions on shrimping that Malaysia had supposedly introduced.

103. India replied that the data from Indian sources provided to the Panel showed that shrimp trawling was not a significant cause of sea turtle mortality in Indian waters. [193] Moreover, as India previously pointed out, there was no exclusive shrimp trawling by Indian fishermen, and thus any inferences by the United States linked to "shrimp trawling" would ipso facto not be applicable to India. Indian fishermen did not trawl exclusively for shrimp, but for all types of fish. Since the function of trawlers in Indian waters was different, it was logical that the design of Indian trawlers be different from shrimp trawlers used in the United States. Finally, the 5,000 strandings of olive ridley turtles did not occur due to trawl fishing activities, but were due to all types of fishing gear. Further, the figure of 5,000 deaths had to be seen in the context of a sea turt le population of 1.2 million olive ridleys, where direct exploitation of adults to the scale of 50,000 to 80,000 per year had been completely stopped. The effectiveness of India's sea turtle protection and conservation programmes had been acknowledged, inter alia, by the Director of National Marine Fisheries Service of the United States, the IUCN Marine Turtle Conservation Strategy and Action Plan for the Northern Indian

[189] B.C. Choudhury, (1997), Country Report: India - Sea Turtle Status, Conservation and Management in India, p. 2; P. Mohanty-Hejmade, (1994), Biology of the Olive Ridleys of Gahirmatha, Orissa, India, Proceedings of the Fourteenth Annual Symposium of Sea Turtle Biology and Conservation, p. 90; IUCN (World Conservation Union), (1997), A Marine Turtle Conservation Strategy and Action Plan for the Northern Indian Ocean, p. 11; Statement of Deborah Crouse, Ph.D. paragraph 8; Affidavit of Pamela Plotkin, Ph. D., 22 July 1997, document submitted to the Panel by the United States, paragraphs 6-10.

[190] B. Pandav, B.C. Choudhury and C.S. Kar, (1994), Olive Ridley Sea Turtle (Lepydochelys olivacea) and its Nesting Habitats Along the Orissa Coast - A Status Survey, Wildlife Institute of India, p. 29.

[191] See references indicated in footnote 189.

[192] Affidavit of Pamela Plotkin, Ph. D., 22 July 1997, document submitted to the Panel by the United States, paragraph 6.

[193] See above paragraph 68, and the references therein.

Ocean, the Mombasa, Kenya Meeting on Integrating Marine Conservation in the Indian Ocean, 1996 and Beyond.

104. Malaysia noted that the chart referred to by the United States to show that shrimp was landed throughout the year contained data for the whole of Malaysia, but not specifically for the east coast of Peninsular Malaysia.

4. Use of TEDs

105. The United States considered that a TED was a simple, cheap and highly effective solution to the problem of sea turtle mortality in shrimp trawl nets. TEDs had been first designed in the United States by the NMFS beginning almost 20 years ago. Since then, TEDs had become more effective and less expensive.[194] They had been developed and manufactured on a commercial basis in a wide variety of nations. TEDs ranged in price from US$75-500. A completely installed TED, i.e. a TED including the basic grid device, all webbing, flaps and flotation devices and which could be installed in the shrimp trawl net with a single simple cut, ranged in price form US$300-400. A TED that was installed by the fisherman cost about US$75-100. TEDs constructed in developing countries with local materials cost a great deal less. During the TED training workshops conducted by the United States in India, Indian participants had estimated the cost of constructing and installing a TED made from local materials as ranging from US$8-12. When the United States provided TEDs training, it included construction of a TED from locally available material as part of that training. TEDs were very easy to install: they were sewn into the trawl net, much the same way fishermen sewed other types of nets. Installation of a TED did not require fishermen to acquire new skills. Once installed, the TED did not affect the way in which the trawl was towed. Therefore, through a minimum of trial and error, shrimp fishermen who were new to TEDs could readily learn to use them properly.

106. The US Government had conducted a detailed, comprehensive study, involving thousan ds of hours spent by neutral observers aboard shrimp trawl vessels. Based on this study and its own exhaustive analysis, the US National Academy of Sciences concluded in 1990 that properly installed TEDs - of the sort required for use in the United States for more than seven years - were a practical and cost-effective way to minimize the unintentional drowning of sea turtles in shrimp trawl nets. Properly installed TEDs approached 97 per cent efficiency in allowing sea turtles to escape from shrimp trawl nets, while limiting shrimp loss rates to 1-3 per cent.[195] TEDs also released debris and other unwanted by-catch from shrimp trawl nets. TEDs were now widely used in shrimp trawl fisheries throughout the Western Hemisphere. More recently, African and Asian countries had begun requiring their use as well. Thailand had instituted a comprehensive TEDs programme in 1996. Also in 1996, a workshop organized by the government of Orissa in India recommended that the use of TEDs "should be made mandatory" throughout that region of the world.[196] Similarly, the Marine Turtle Conservation Strategy and Action Plans developed by IUCN (World Conservation Union) for the Western Indian Ocean, and the Northern Indian Ocean, endorsed the use of TEDs in that region.[197]

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[194]The United States noted that since TEDs had been first introduced to the US shrimp fishery in the late 1980s, research and development to improve TED performance has continued. Using SCUBA divers and video cameras attached to shrimp trawl nets under actual working conditions, NMFS gear researchers, working with shrimp fishermen and net manufacturers, had made improvements to TEDs, enhancing performance for both turtle exclusion and shrimp retention. Shrimp fishermen in the United States had contributed to improvement in TED design and techniques for handling TEDs at sea.

[195]National Research Council, National Academy of Sciences, (1990), Decline of the Sea Turtles: Causes and Prevention, p. 128. The United States also produced to the Panel a Statement of Scientists signed by 74 scientists attesting "to the extraordinary effectiveness of TEDs".

[196]Recommendations of the Training-cum-Demonstration Workshop on Turtle Excluder Device (TED), held at Paradeep, Orissa, from 11-14 November 1996.

[197]IUCN (World Conservation Union), (1995), A Marine Turtle Conservation Strategy and Action Plan for the Western Indian Ocean, p. 14, and IUCN (World Conservation Union), (1997), A Marine Turtle Conservation Strategy and Action Plan for the Northern Indian Ocean, p. 11.

107. India disagreed with the costs of TEDs indicated by the United States (US$75-500), and noted that costs had to be considered in context. While TEDs might be inexpensive by US standards, they were certainly not cheap to owners of fishing vessels in India. The average annual income of fishermen in India was only around US$300. Moreover, the US figure did not include the cost of installation and training, which would make any TEDs programme in India more expensive than projected by the United States. Thus, while TEDs might be cheap by US standards, they could not be considered cheap by Indian fishermen. The cost of a TED depended on its size and model. It was India's understanding that TEDs imported from abroad cost approximately US$200 per piece. Imported TEDs suitable for deep sea fishing vessels ranged in cost from US$500 to US$600 per piece. India questioned the cost indicated by the United States for TEDs made with local materials (US$8-12). The design of Indian trawlers was very different from US trawlers; therefore, NMFS gear specialists had found, during the preparation of the 1996 Orissa workshop that only one out of seven models of TED ("Georgia Jumper") was suitable. At the November 1996 workshop, the gear specialists had demonstrated the fabrication, installation and one time fishing in the sea. The TED was constructed from locally available steel rods but the floats, trimmings and angle meter had been brought from the United States. The cost of the steel rods alone was about US$60. With respect to other costs, India did not have relevant data regarding loss of shrimp/fish associated with the use of TEDs. Further, India did not have any information concerning the costs associated with training fishermen to use TEDs properly.

108. Another practical issue associated with Indian fisheries, which did not appear to be present in US fisheries, was that other fish caught in nets during trawling, in particular some large fish, were also sought for commercial purposes by Indian fishermen. However, such fish could pass through the grid of a TED and thus escape from the net. This resulted in an increase in catch loss, and corresponding increase in costs for Indian fishermen, which had not been taken into account by the United States in promulgating its TEDs requirements. Fishing methods in India and the United States were completely different and the United States had not so far demonstrated that TEDs could retain large fish in fishing trawl nets. At the Paradeep workshop, US experts had realized that enlarging the distance between the TED grills to retain large fish would result in entangling the heads of turtles within the grills, and thus, in human-induced mortality of sea turtles in TEDs. This practical problem had been noted by participants at the Cochin Workshop, including the US experts present, but no suggestions were provided concerning how to solve it. According to Indian experts, the effectiveness of the TED in Indian waters could only be ascertained after a detailed study covering a reasonable length of time. Issues such as the behaviour of certain models of TEDs and of the TED -equipped net while trawling, the loss of catch (shrimp and fish) while using TEDs, and the effectiveness of the various models under Indian conditions, had to be studied in detail for sufficiently long periods before the Government of India could decide on the suitability of the TEDs in Indian waters. Indian fishermen were apprehensive about the effect of TEDs on different target fish. In the United States, specific TEDs were designed for different types of fishing and, hence, in India only one TED would not be suitable for all types of fishing. The fabrication, installation and monitoring in mass scale had to be organized; the escape opening dimensions had to be determined (for example, it was different in the Gulf of Mexico and in the Atlantic). Therefore, TED technology transfer to suit local fishing was a long process and could not be implemented immediately. India also pointed out that it was still in the process of examining whether and where TEDs should be used to reduce incidental deaths of sea turtles. India stressed, however, that its sea turtles populations were not in danger, even without the use of TEDs.

109. With respect to whether TEDs were "simple" and "highly effective", India adopted Thailand's arguments (see paragraph 3.86). Regarding the TEDs workshop conducted in Orissa, in November 1996, i.e. after the embargo on Indian shrimp had been imposed, India noted that the participants at this conference, including US representatives from NMFS, expressed "deep concern at

the ban imposed by the US Government on shrimp imports". [198] India also noted that a notice published by the Sea Turtle Restoration Project of Earth Island Institute specifically addressed US enforcement problems. The notice stated: "citing the federal government's apparent inability to end the drowning deaths of thousands of endangered sea turtles every year in US waters, a coalition of over 45 environmental and animal protection organizations and concerned businesses has launched a consumer-powered campaign to end the slaughter". The notice further stated that, despite laws requiring US shrimpers to use TEDs, "in 1995 over 2,000 sea turtles washed up dead on US beaches. These high numbers support the widely-held belief that many US shrimpers, particularly in the Gulf of Mexico, are disabling their TEDs because they fear a reduced catch". [199]

110. Malaysia disagreed with the claim made by the United States that drowning of sea turtles in shrimp trawls could be virtually eliminated through the use of TEDs and noted that even in the United States the mandatory use of TEDs since 1992 had not resulted in the elimination of mortalities. For example, turtle stranding in the United States in May 1996 had been reported to be more than twice the five year historic average in several zones, while in 1993-94 Kemp's ridley mortalities had reached a record high. [200] Malaysia also considered that, contrary to what was asserted by the United States, the use of TEDs was not necessarily "widely used in shrimp trawls throughout the Western Hemisphere". Even in the United States, there had been non-compliance among local shrimpers. In 1994, large numbers of dead turtles had been washed ashore on Texas beaches, which was attributed to failures of NMFS to enforce the TED regulations. Many shrimpers had been found to have disabled or misinstalled TEDs in their nets. [201] As to the cost of TEDs, Malaysia said that a SEAFDEC-developed TED adapted to Malaysian trawls and its installation was between Ringgit 90 to 120. The practical aspects of using TEDs in Malaysia were: (i) the joint efforts under SEAFDEC resulted in further work [202] at localizing the SEAFDEC developed TED to Malaysian conditions and the introduction of the TED in an official launch in Sigari, Perak; (ii) practical difficulties were envisaged in the enforcement of the use of TEDs because local fishermen contended that in their fishing experience for shrimps, they rarely caught sea turtles; (iii) the reluctance of fishermen to volunteer information on the number of turtles caught.

111. Pakistan noted that on average Pakistani fishermen earned the equivalent of approximately US$60-700 per year. The United States had indicated that TEDs ranged in price from US$75-500. Even ignoring additional costs such as training and loss of catch, the United States estimate amounted to approximately 10 to 70 per cent of a Pakistani shrimper's annual income. Thus, while TEDs might be considered to be cheap for US shrimpers, they were not cheap for Pakistani shrimpers. Indeed, conditioning importation of shrimp upon the purchase of such expensive equipment was inconsistent with the language of the preamble of the WTO Agreement, which required Members to enhance the

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[198]Recommendations of the Training-cum-Demonstration Workshop on Turtle Excluder Device (TED), held ad Paradeep, Orissa, from 11-14 November 1996, p. 7.

[199]Earth Island Institute, Sea Turtle Restoration Project - First Dolphin-Safe Tuna, now Sea Turtle-Safe Shrimp?, on http://www.earthisland.org/ei/strp/first.htm1, on 7 July 1997.

[200]D. Crouse, Action alert!!, Center for Marine Conservation, 20 May 1996. A release to multiple recipents of list CTURTLE<CTURTLE@NERVM.NERDC.UFL.EDU>; and D. Crouse, U.S. TEDS still in limbo - believe it or not!!, 14 October 1996, Center for Marine Conservation. A release to multiple recipients of list CTURTLE <CTURTLE@NERVM.NERDC.UFL.EDU>.

[201]M. Weber, D. Crouse, R. Irvin and S. Iudicello, (1995), Delay and Denial: A Political History of Sea Turtles and Shrimp Fishing, Center for Marine Conservation, p. 12.

[202]A. Ali, S.S. Sayed Alwi and S. Ananpongsuk, Experiments on the use of Turtle Exclider Devices (TEDs) in Malaysian waters, paper presented at the regional workshop on Responsible Fishing, 24-27 June 1997, Bangkok, Thailand.

means for protecting and preserving the environment in a manner consistent with the Member's respective needs and concerns at different levels of economic development. Pakistan further noted that even in the United States, where shrimpers had been working with TEDs for more than ten years, improper use of TEDs had been proven to cause a high level of mortality among sea turtles. With regard to whether TEDs were a "simple" and "highly effective" solution, Pakistan adopted the arguments made by Thailand (see paragraph 3.86).

112. Thailand noted that while the cost of a single TED was relatively modest (the cost of the TED itself, plus installation, was US$100 per vessel), the consequential costs of TEDs use in Thailand had been enormous, principally in lost shrimp catch, estimated at 30 -40 per cent. Thailand estimated that the cost of TEDs purchase, installation, training and use (including lost catch to date) amounted to US$3,200 per vessel.[203] This cost would rise as TEDs use and corresponding loss of catch continued. Thailand argued that it was also inaccurate to suggest that TEDs were universally 97 per cent effective in preventing sea turtle deaths or that shrimpers could easily learn how to use this device. As recently as 1994, after several years of use in the United States, there were high numbers of dead sea turtles stranded along the coasts of Texas, Louisiana, Georgia and northeastern Florida. NMFS had found that the major cause of the strandings was the improper use of TEDs by shrimpers in the Gulf of Mexico.[204] Additionally, high numbers of strandings occurred in various locations during 1995 and 1996. NMFS stated that "[a]mong the identified causes of the continued strandings have been the improper use of TEDs and the use of inefficient TEDs by shrimp fishermen".[205] These findings belied US claims that through a minimum of trial and error, shrimp fishermen who were new to TEDs could readily learn to use them properly. In addition, the NMFS had determined that approval of the Morrision, Parrish, Andrews, and Taylor soft TEDs should be removed because those TEDs were ineffective.[206] NMFS noted that proper installation of soft TEDs was extremely difficult, that problems inherent in using soft webbing material as a turtle excluder device were serious and widespread and that the "Andrews soft TED, as presently designed, is ineffective at excluding turtles".[207] Although NMFS had made these determinations in December 1996, actual removal of the approval of these TED designs was not scheduled to take effect until December 1997. Specifically, in a Conference Report accompanying the Omnibus Consolidated Appropriations Act, 1997, the NMFS had been directed "not to decertify any turtle excluder devices until every effort has been made, working with industry and others, to improve or modify existing devices to increase turtle escapement".[208] NMFS had also found problems with certain bottom -opening TEDs. Specifically, tests in June 1996 revealed "previously unknown problems with turtle capture in straight -bar, bottom-opening TEDs installed at high angles and fitted with long webbing flaps".[209] Thus, it was not true that TEDs technology was tried, tested and effective as suggested by the United States. This technology was still very much under development.

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[203]K. Kwanming, (1997), Impacts of Shrimp Trawl Fishing from TTFD Installation, Fisheries Economic Division, Department of Fisheries.

[204]Sea Turtle Conservation; Revisions to Sea Turtle Conservation Requirements; Restrictions to Shrimp Trawling Activities, 61 Fed. Reg. 66, 933 (19 December 1996), p. 66, 935.

[205]Ibid., p. 66, 937.

[206]Ibid., p. 66, 933.

[207]Ibid., p. 66, 938.

[208]Ibid., p. 66, 935.

[209]Ibid., p. 66, 940.

113. The United States noted that none of the complainants had questioned the effectiveness of TEDs in allowing sea turtles to escape. Since the United States had begun requiring TEDs, populations of Kemp's ridley and loggerhead sea turtles found in the United States had stopped declining and were well on their way to recovery. Indeed, there was no other effective way known to protect sea turtles from drowning in shrimp trawl nets. As to the alleged "30-40 per cent" losses of shrimp from trawl nets equipped with TEDs, the United States noted the following. A very recent report on Experiments on the Use of Turtle Excluder Devices in Malaysian Waters[210] documented a total of 47 trawling experiments done in Malaysian waters to test the suitability of TEDs for Malaysian fishermen. The report concluded that, while a minimal amount (between 0.01 per cent and 7.7 per cent) of fish and "trash fish" might have escaped from the TED-equipped trawl nets, "the result showed that TEDs prevented marine turtles from being trapped in the net but did not affect the catch of fish and shrimp ... Therefore, the small and medium size of TEDs were found to be suitable for use by Malaysian fishermen".[211] This report also referred to another 1997 study prepared by C. Bundit et. al., on recent experiments conducted in Thailand on the "Thai Turtle Free Device". The Malaysian report cited the Bundit study as having found average escape rates of shrimp and fish from trawl nets equipped with the Thai Turtle Free Device as "1.8 per cent and 1.04 per cent for day and night time operation, respectively".[212] This finding disproved Thailand's assertions that TEDs caused shrimp losses of 30-40 per cent. The United States also referred to a document produced by Malaysia, which described the results of experiments with the "Super Shooter" TED and the Thai Turtle Free Device in Thai waters and indicated: "[a]fter the second experiment, results showed that by using [the] Super Shooter and [the] TTFD, the escape rate for the total catch [not just shrimp] was acceptable at a percentage range of 1.91 and 1.84, respectively".[213]

114. The United States disagreed with India's claim that NMFS gear specialists had found that only the "Georgia Jumper" TED was suitable for Indian waters off the coast of Orissa. In fact, the United States had never stated that any particular TED design was most appropriate. Rather, during training sessions, the United States often demonstrated the Super Shooter TED, and constructed a TED from locally available material. Both types of TEDs were left with the host country. In the particular case of India, the NMFS gear specialist had concluded that any type of TED would work in Indian waters off the coast of Orissa and had informed the Indian participants accordingly. Thailand's assertion that TEDs cost fishermen thousands of dollars did not withstand scrutiny. The cost of a TED to individual Thai fishermen had been zero because their government had supplied them TEDs free of charge. Moreover, Thailand tried to impute to its fishermen the cost to the government of implementing a TED programme. The United States also questioned the governmental costs claimed by Thailand in this respect, and noted that Thailand did not factor in the savings in sea turtles produced. The claims regarding the supposed loss of shrimp conflicted directly with studies of TEDs conducted in the United States, Malaysia, Thailand and elsewhere which showed that TEDs caused virtually no shrimp loss. Moreover, the documents submitted by Thailand purporting to show higher loss rates was based largely on interviews with shrimp fishermen, who had a strong incentive to overstate problems in using TEDs. Thailand had not submitted the same sort of evidence that the

[210]A. Ali, S.S. Sayed Alwi and S. Ananpongsuk, (1994), Experiments on the Use of Turtle Excluder Devices (TEDs) in Malaysian Waters, paper presented at the regional workshop on Responsible Fishing, 24-27 June 1997, Bangkok, Thailand.

[211]Ibid., p. 1.

[212]Ibid., p. 7. The United States also noted that, during a TEDs workshop held in Songkla, Thailand, officials from the US National Marine Fisheries Service pulled one TED-equipped trawl net along side a trawl net without a TED. The amount of shrimp caught by each was the same.

[213]TED gained Thai fisherment's acceptance, SEAFDEC Newsletter, July-September 1996.

United States had provided, i.e. scientific studies and data generated by neutral observers stationed aboard shrimp trawl vessels. Finally, TEDs could save shrimp fishermen money. TEDs excluded from the nets not only sea turtles but large debris, and thus allowed more shrimp to be caught in a given tow. TEDs prevented the shrimp in the nets from being crushed by the debris. TEDs also saved the fishermen time in sorting the catch at the end of the tow.

115. The United States disagreed with the assertions made by some of the complainants that it was not effectively enforcing the use of TEDs in US waters. The requirements with respect to US vessels were enforced vigorously and had achieved a high rate of compliance. The United States only asked that shrimp imported into its market be harvested in accordance with comparable standards. The United States considered that the complainants mischaracterized several elements of the US TEDs programme. The use of soft TEDs was already prohibited in much of US shrimp fishery, particularly in those areas designated as "Shrimp Fishery Sea Turtle Conservation Areas", where sea turtles faced the highest risk if incidental capture. TEDs were required in try nets in these areas as well. Moreover, the use of soft TEDs would be prohibited everywhere in US waters as of 19 December 1997. The United States conceded it experienced elevated levels of sea turtle strandings in 1994. Those sea turtles deaths had been attributed primarily to improperly installed TEDs and improperly floated TEDs. In response, the United States had increased enforcement and implemented an Emergency Response Plan. As a result, strandings had decreased significantly, demonstrating that TEDs, when used properly, were very effective in protecting sea turtles from mortality in shrimp trawls.

116. India could not agree with the United States that TEDs were simple: the simplicity of TEDs was still a matter of adapting their design to the local conditions. This was yet to be examined in India. Moreover, TEDs were expensive, as explained in paragraph 3.81. India was unable to accept the US estimate that the price of constructing a TED from locally available materials was approximately US$8-12. As noted earlier, TEDs were not in commercial use in India at the moment. From India's experience in fabricating TEDs locally, the cost varied from location to location, and would be higher than the figure given by the United States. The assertion that TEDs virtually eliminated sea turtle mortality in shrimp trawl nets could be true in the case of the United States, but was not applicable to India. This was so because in areas of high turtle congregation (i.e. in concentrated breeding and mating grounds) substantial mortality of adult turtles occurred by the slashing of propellers of all types of mechanized fishing vessels. Promoting trawling activity through the use of TEDs in such high turtle congregation zones might have an adverse impact by disturbing the mating pairs during the peak breeding season, thus in fact affecting the reproductive potential of the population as a whole. Therefore, India believed in giving full protection to this area by restricting fishing rather than allowing trawling with TEDs. Further, in such high turtle congregation areas, there was evidence that, during the peak breeding season, large numbers of adult turtles, including mating pairs and gravid females, very often got simultaneously entangled in fishing nets. In such situations, there was every possibility that the turtles would block the escape route of any TED which might be installed, resulting in the death of turtles as well as loss of fish catch. No study had been done so far regarding the effectiveness of TEDs in such situations.

117. Regarding the alleged recovery of the Kemp's ridley and loggerhead populations in the United States, Malaysia submitted that a study on Kemp's ridley indicated that the recovery of that population was due to egg protection and to protection of turtles at sea. [214] In the case of loggerheads, not all populations had shown recovery, as stated in a document submitted by the United States. [215]

[214] Kemp's Ridley Sea Turtle (Lepidochelys Kempii) Statut Report, (1996), Report of the Marine Turtle Expert Working Group.

[215] Status of the Loggerhad Sea Turtle Population (Caretta caretta) in the Estern North Atlantic, (1996), Report of the Marine Turtle Expert Working Group.

118. Thailand noted that the Bundit study[216] referred to by the United States had been conducted under conditions that did not replicate normal operating circumstances in the Thai shrimp fleet. Specifically, the study methodology explained that trawling occurred over a period of only one hour. Trawling over more representative periods increased the amount of debris caught in the TEDs, thereby increasing shrimp loss. The study already referred to by Thailand, representing actual operating experience, showed a much higher shrimp loss.[217] Moreover, reports published in the United States indicated that US shrimpers were routinely disabling their TEDs. It was unlikely that they would take the time and trouble to do this, as well as incurring the risks of detection, if they were not also experiencing losses of catch exceeding the very low rates indicated by the United States.

119. The United States replied that India offered no evidence to disprove that a TED made from local materials would cost from US$8 to 12. Second, it would be more meaningful to compare the cost of a TED to the total capital costs to an owner of a shrimp vessel of operating that vessel, rather than to the earning of an individual fisherman on the vessel. Even in developing countries, such a comparison would show that TEDs represented a very small fraction of such costs. Shrimp vessels in many developing nations, including Belize, Brazil, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Indonesia, Mexico, Nicaragua, Nigeria, Panama, the People's Republic of China, Trinidad and Tobago, and Venezuela were using TEDs in a cost-effective way. Tests on TEDs conducted in Malaysia and Thailand had proved their effectiveness in those waters.[218] India provided no evidence to show that shrimp trawling conditions in India were different than those in Malaysia and Thailand. The otter trawl gear used in India was the same as that used in most other places of the world, including the United States. Moreover, the United States and other nations had tested TEDs in all marine habitats where shrimp were found, including in the complainants' region during workshops, and had found no meaningful differences of conditions from those elsewhere in the world. As to the argument that pairs of mating turtles could block the escape route of a TED, the United States was not aware of any scientific data on the question and noted that if such sea turtles would definitely not escape from a trawl net without a TED, they might escape from a TED-equipped net.

5. International Environmental Agreements and the Use of TEDs

120. The United States considered that the use of TEDs had become a recognized multilateral environmental standard, fulfilling twin commitments on the part of the international community to conserve endangered species, such as sea turtles, and to minimize their unintentional mortality in fishing operations. The international community had long recognized the need to protect endangered species such as sea turtles. All species of sea turtles appeared on Appendix I to CITES, having first been placed on that Appendix in 1975. Under the terms of CITES, trade in these species must accordingly be subject to "particularly strict regulation in order not to endanger their survival and must be authorized only in exceptional circumstances".[219] As a consequence of their listing on

[216]B. Chokesanguan, et. al., (1997), The Experiments on Turtle Excluder Devices (TEDs) for Shrimp Trawl Nets in Thailand", South Asian Fisheries Department.

[217]K. Kwanming, Impacts of Shrimp Trawl Fishing from TTFD Installation, Fisheries Economic Division, Department of Fisheries.

[218]A. Ali, (1997), Experiments on the Use of Turtle Excluder Devices (TEDs) in Malaysian Waters, paper presented at the Regional Workshop on Responsible Fisheries, 24-27 June 1997, Bangkok, Thailand. SEAFDEC, (1996), TED Gained Thai Fishermen's Acceptance, SEAFDEC Newsletter, Vol. 19, No. 3, p. 11.

[219]CITES, Article II(1).

Appendix I to CITES, international trade in sea turtles, and in their eggs, parts and products, was virtually prohibited. As parties to CITES, the complainants were obligated under international law to impose import prohibitions as a means of conserving these sea turtles. The United States observed that by requiring its parties to prohibit international trade in sea turtles, CITES undoubtedly had advanced the cause of sea turtle conservation. By itself, however, this prohibition did nothing to address the incidental mortality of sea turtles in trawl nets, which for many years has constituted a far more serious threat to sea turtles than international trade. The CITES prohibitions, like the prohibitions on the intentional killing of sea turtles, had not prevented the continuing decline of sea turtles worldwide.

121. The international community had also long been aware of the threat to sea turtles and to other living resources as a result of their incidental mortality in marine fishing operations. The 1982 United Nations Convention on the Law of the Sea ("LOS Convention") generally required States, both within areas under their national jurisdiction and on the high seas, to ensure through proper conservation and management measures, that the maintenance of living resources was not endangered by over-exploitation. In taking such measures, States had to "take into consideration the effects on species [such as sea turtles] 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". [220] Since the adoption of the LOS Convention in 1982, the need for stricter regulation of bycatch had become increasingly critical. That was why Agenda 21 declared that it was necessary to "promote the development and use of selective fishing gear and practices that minimize ... bycatch of non-target species". [221] The United States further argued that this multilateral environmental standard to minimize bycatch had been strengthened further, and made a treaty obligation, in a new global convention regulating marine fisheries, the 1995 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 ("UN Fish Stocks Agreement"), whose Article 5(f) required Parties to "minimize ... catch of non-target species (both fish and non-fish species) ... and impacts on associated or dependent species, through measures including, to the extent practicable, the development and use of selective, environmentally safe and cost-effective fishing gear and techniques".

122. In 1993, the United States had joined with Mexico in leading negotiations toward a new multilateral agreement for the Western Hemisphere devoted specifically to protecting sea turtles from extinction. This three-year negotiating effort had concluded on 5 September 1996 with the adoption of the Inter-American Convention for the Protection and Conservation of Sea Turtles ("Inter-American Convention"). This new treaty required parties to take a variety of measures to protect and conserve sea turtles and their habitats, and stipulated, in particular that "[e]ach Party shall require shrimp trawl vessels subject to its jurisdiction that operate within the Convention Area [222] to use recommended TEDs that are properly installed and functional" [223] (Annex III, paragraph 3 of the

[220]United Nations Convention on the Law of the Sea, UN Doc.A.CONF.62/122, reprinted in 21 I.L.M. 1261 (1982), Article 61(2) & (4) and Article 119(1)(b).

[221]Report of the United Nations Conference on Environment and Development, Rio De Janeiro (3-14 June 1992), UN Doc. A/CONF.151/26, Agenda 21, paragraph 17.46(c).

[222]Article III of the Inter-American Convention defined the "Convention Area" to comprise "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".

[223]Inter-American Convention, Annex III, paragraph 4. The United States noted that the Inter-American Convention also required parties, inter alia, to prohibit the intentional take of sea turtles (except for limited subsistence use by traditional communities), to ban domestic as well

Convention). The countries in the Western Hemisphere understood that, because of the highly migratory nature of sea turtles, a treaty that afforded protection to sea turtles in only one region of the world would not succeed unless countries in other regions adopted comparable measures. For this reason, Article XX of the Inter-American Convention encouraged its parties to negotiate complementary protocols to that treaty with states in other regions in order to promote the protection and conservation of sea turtles outside the Western Hemisphere.

123. The United States submitted that, following the conclusion of negotiations on the Inter-American Convention in the latter part of 1996, its Government had proposed to the governments of certain Asian nations, including those of the four complainants, the negotiation of such a protocol or other international agreement for sea turtle protection that would apply to the Asian region. The Governments of India, Malaysia, Pakistan and Thailand had declined to accept the offer of multilateral negotiations. Despite the fact that these governments had not, to date, agreed to negotiate a multilateral agreement for the protection of sea turtles in the Asian region, the required use of TEDs, both in Asia and throughout the Western Hemisphere, had become a multilateral environmental standard. Today, at least the following nations required TEDs on shrimp trawl vessels subject to their jurisdiction: Belize, Brazil, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Indonesia, Mexico, Nicaragua, Nigeria, Panama, the People's Republic of China, Thailand, Trinidad and Tobago, the United States and Venezuela. Other nations in Asia and Africa had informed the United States of their intention or desire to establish TEDs programmes.

124. With respect to the assertion by the United States that the use of TEDs had become a multilateral environmental standard, India referred to the argument made by Thailand in paragraphs 3.101 to 3.104. India further responded that prior to the introduction of the embargo, the United States had not made any effort to initiate negotiations of an international agreement on the protection of sea turtles. Subsequent to the consultations held under the WTO dispute settlement mechanism in Geneva in November 1996, a proposal had been made by the United States to India to enter into a regional agreement on the lines of the Inter-American Convention. However, this proposal was conditional upon India abandoning the proceedings in the WTO. India had been unable to respond positively to the US proposal in view of the fact that India had been subject to trade restrictions which were inconsistent with the GATT and were not in conformity with CITES. In addition, India had declined the US proposal based on the fact that any proposal for a regional agreement on the protection and conservation of endangered species of sea turtles should, in India's view, emanate from the countries of the region in question. Regarding CITES, India added that the only trade restrictions which CITES obliged parties to take concerned the endangered species specified in the relevant Annexes to the Convention. Shrimps were not covered as an endangered species under the provisions of CITES, and therefore could not under those provisions be put under an import prohibition. Since the Unites States was of the view that the CITES prohibitions had not prevented the continuing decline of sea turtles worldwide, it had to address what it perceived as a problem facing endangered species of sea turtles in the forum of the CITES, which was the international agreement competent to deal with such a problem relating to sea turtles, and not to introduce discriminatory trade restrictions on shrimps in disregard of its WTO obligations.

125. Malaysia refuted the claim that the required use of TEDs had become a multilateral environmental standard or a standard that was acceptable to all countries. Although signatories to the Inter-American Convention for the Protection and Conservation of Sea Turtles recognized TEDs,

(..continued)

as international trade in sea turtles and in their eggs, parts and products, to reduce the incidental capture, injury and mortality of sea turtles associated with all commercial fisheries, and to cooperate in international scientific research for the purpose of protecting sea turtles.

there were still many countries which did not recognize the use of TEDs. [224] In that regard, Malaysia noted that Indonesia had banned trawling in 1980; this contradicted the US assertion that TEDs use was required in that country. The various treaties and multilateral agreements mentioned by the United States promoted conservation through multilateral mutual agreements and not by the imposition of import prohibitions. They made reference to the use of selective, environmentally safe and cost-effective fishing gear and not to the use of TEDs specifically. Furthermore, Agenda 21 provided for the need to develop agreed criteria and not unilateral measures. Malaysia observed that multilateral environmental treaties like the Convention on Biological Diversity (CBD), the United Nations Convention on Climate Change (UNFCC) and CITES shared the same principles, i.e. the principle of international cooperation and that of national sovereignty. [225] It was only through this process that a measure would become a multilateral environmental standard. Malaysia declared that no sincere or serious effort had been made by the United States in establishing a arrangement similar to the Inter-American Convention with certain Asian countries. The import prohibition had been imposed on Malaysia on 1 May 1996. The only approach by the US Embassy in Malaysia had been to give a copy of the Inter-American Convention on an informal basis to the Ministry of International Trade and Industry of Malaysia in December 1996, i.e. two months after the consultation procedures between the United States and Malaysia had started in WTO. Since then, there had been no approach or indication, whether on an official or unofficial basis, that the United States intended to negotiate or discuss any arrangement. Malaysia further stated that the United States had not exhausted the bilateral and multilateral channels foreseen in Section 609 (a) (1) to negotiate and cooperate with Malaysia for the purpose of conserving sea turtles. The drastic measures taken by the United States in imposing the import prohibition had made that provision redundant.

126. With respect to the assertion by the United States that TEDs had become a multilateral environmental standard, Pakistan referred to the arguments made by Thailand in paragraphs 3.101 to 3.104. Pakistan further responded that it was unaw are of any efforts made by the United States to initiate negotiations and/or reach bilateral or multilateral agreements on the protection of sea turtles relevant to the issues at stake in this proceeding.

127. Thailand responded that if the use of TEDs had become a multilateral environmental standard, this was largely due to the effectiveness of US coercion applied through the trade measure in dispute in this case. Certainly this was true of Thailand. Based on the evidence at Thailand's disposal, TEDs were not a cost-efficient means of avoiding sea turtle mortality in Thai waters and would not continue to be required in the absence of Section 609 and the consequences of abandoning TEDs use for Thailand's exports to the United States. The international conventions and conferences cited by the United States evidenced general international agreement that each State had the right to determine its own conservation measures. These conventions further evidenced a consensus that conservation issues relating to shared resources should be resolved through international cooperation, not unilateral action. Under CITES, Thailand and the other signatories had agreed that sea turtles were in need of protection and that "trade in these species must be subject to particularly strict regulation in order not to endanger further their survival". [226] However, parties to CITES had not agreed to trade limitations on species not listed in the Appendices, such as shrimp. Nor did CITES

[224] In commenting on Annex JJ of the United States (see below Section III.D), Malaysia noted that the Inter-American Convention had been cited as an important milestone in the global recognition of TEDs. Nevertheless, very few countries had actually ratified it. As of February 1997, only six countries of the entire region had signed the Convention, i.e. two short of the minimum number required to put this instrument into force.

[225] Malaysia referred, in particular, to Articles XIII and XIV of CITES, Article 3 and 5 and the Preamble of the CBD, Articles 3 and the Preamble of the UNFCC.

[226] Article II:1 of CITES.

authorize signatories to take action against other signatories which did not limit bycatch by means specified by one signatory to the treaty as being essential or necessary. In fact, the preamble to CITES recognized that "peoples and States are and should be the best protectors of their own wild fauna and flora" and that "international cooperation is essential for the protection of certain species of wild fauna and flora against over-exploitation through international trade". CITES represented an international consensus concerning what each State had to do to protect endangered or threatened species. By reverse inference, because the measures adopted by the United States were not authorized by CITES, there was no international consensus on their necessity or desirability. If the United States believed that other nations needed to take specific actions to protect sea turtles within their jurisdiction or on the high seas, the answer was to seek amendment to CITES or to negotiate other consensual international agreements to address the problem.

128. Thailand further argued that the 1982 United Nations Convention on the Law of the Sea ("LOS Convention")[227] recognized the sovereignty of States over their territorial waters and exclusive economic zones. Specifically, Article 2 provided that the sovereignty of a coastal State extended, beyond its land territory and internal waters and in the case of an archipelagic State, its archipelagic waters, to an adjacent belt of sea, described as the territorial sea. In addition, Article 56 provided that a coastal State had sovereign rights in its exclusive economic zone for purposes of exploring and exploiting, conserving and managing natural resources, whether living or non-living. The concept of sovereignty and the right to exercise jurisdiction over a State's own nationals was also set forth with respect to shared resources on the high seas. Specifically, Article 117 provided that "all states have the duty to take, or to co-operate with other States in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas". Article 62 of the LOS Convention provided that nationals of other States fishing in the exclusive economic zone of a State had to comply with the conservation measures and with the other terms and conditions established in the laws and regulations of the coastal State, including laws relating to the types, sizes and amount of gear used. While, as noted by the United States, this Article also provided that proper conservation and management measures should be taken, the Article provided the coastal State with the authority to make a determination as to which measures were necessary and appropriate.

129. Thailand recalled that, with respect to shared resources such as stocks occurring within the exclusive zones of two or more coastal States or highly migratory species, Articles 63 and 64 of the LOS Convention provided that states which fish for such shared resources should seek, directly or through appropriate sub-regional or regional organizations, to agree on measures necessary to ensure conservation and should cooperate directly or through appropriate international organizations with a view to ensuring conservation and promoting the objective optimum utilization of such species. With respect to the conservation of shared living resources on the high seas, Article 118 of the LOS Convention provided that "States shall cooperate with each other in the conservation and management of living resources in the areas of the high seas. States whose nationals exploit identical living resources, or different living resources in the areas, shall enter into negotiations with a view to taking the measures necessary for the conservation of the living resources concerned. They shall, as appropriate, co-operate to establish sub-regional or regional fisheries organizations to this end".

130. Thailand further mentioned that Principle 2 of the 1992 Rio Declaration provided that "States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental polices, and the responsibility to ensure that activities within their jurisdiction or control do not cause

[227]United Nations Convention on the Law of the Sea, UN Doc. A.CONF.62/122, reprinted in 21 I.L.M. 1261 (1982).

damage to the environment of other States or of areas beyond the limits of national jurisdiction". [228] Principle 12 of the Rio Declaration provided that "States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. ... Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an international consensus". In the preamble to the Inter-American Convention for the Protection and Conservation of Sea Turtles, the drafters recognized that the protection and conservation of sea turtles required cooperation and coordination among States within the range of such species. Thus, the Agreements cited by the United States did not authorize or anticipate the unilateral regulation or determination of conservation policies with respect to shared global resources. To the contrary, the agreements demonstrated that there was an international consensus that such measures should be avoided in favour of international cooperation and regional or multilateral agreement with respect to conservation of shared global resources.

131. Thailand argued that the US offer to enter into multilateral negotiations for the protection of sea turtles had taken place after the embargo had been put in place and after the first round of WTO consultations. A copy of the Inter-American Convention had been submitted to the Thai authorities as a proposed model for the negotiations; however, that agreement required the use of TEDs. In addition, Thailand had been asked to abandon the WTO proceeding. In January 1997, the Thai Department of Fisheries responded to the US letter with a series of questions about the model agreement which were never answered. It then did not appear that the offer of negotiations had been seriously put forward by the United States or that the United States was open to any negotiated outcome other than one requiring TEDs to protect sea turtles. As to CITES, which required parties to take action to protect animals in other jurisdictions, Thailand conceded that parties could multilaterally agree to a derogation to GATT rights. Moreover, CITES required that action be taken with respect to the importation, sale, handling or exportation of the endangered species itself once it came within the jurisdiction of the party. The measure at issue in this dispute, in contrast, sought to bar access to the US market for imports of a species that was not endangered - shrimp - and represented a unilateral determination of the appropriate means to conserve resources outside the jurisdiction of the United States.

132. As to the argument that CITES represented an international consensus concerning what each State had to do to protect endangered or threatened species and that, by reverse implication, there was no international consensus on the need for TEDs, the United States replied that CITES only addressed international trade in endangered species, not other threats to these species. CITES did not purport to limit other measures that its Parties might take to protect endangered species. In fact, CITES expressly reserved the rights of its Parties to take such other measures. Moreover, since CITES required countries, including the complainants, to restrict trade in endangered species located in the jurisdiction of other countries, CITES helped to show that there was no general principle of international law prohibiting countries from taking measures to conserve endangered species located in the jurisdiction of other countries. Regarding Principle 12 of the Rio Declaration, the United States noted that the Rio Declaration did not mandate cooperation; rather, it only stated that "unilateral actions ... should be avoided". This was language of exhortation, not obligation. The United States further noted that the United Nations Convention on Climate Change referred to by Malaysia also stated that "[m]easures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on trade".

[228] Adoption of Agreements on Environment and Development, The Rio Declaration on Environment and Development, A/Conf.151/5/Rev. 1, 13 June 1992, reprinted in 31 I.L.M. 876.

This Convention explicitly acknowledged that countries could take so-called "unilateral" actions in order to prevent harm to the environment. The United States maintained that the US government was quite serious in proposing to the complainants the negotiation of a multilateral agreement to protect sea turtles, and that it remained serious in extending this offer. The United States regarded the Inter-American Convention for the Protection and Conservation of Sea Turtles as a model of international cooperation and hoped that similar agreements could be concluded for other regions, including Asia. Regarding the assertion by Malaysia that Indonesia had banned trawling in 1980 and thus had no TEDs programme, the United States maintained that Indonesia had an operative TEDs programme since 1982. On the invitation of the Indonesian Government, the United States Government had recently conducted a TEDs training seminar in Indonesia to assist them with continued implementation of its TEDs programme for its shrimp trawl fishery, which did exist. Indonesian representative also attended a TEDs workshop held by the United States in Thailand.

6. Transfer of TEDs Technology

133. The United States considered that one reason why TEDs use had become so widespread was that the United States Government had undertaken extraordinary efforts to transfer TEDs technology to governments and industries in other countries, particularly in developing countries. Since 1983, when gear specialists from NMFS first began working with foreign government officials, the United States had conducted more than 50 workshops on the design, construction, installation and use of TEDs, both in the United States and in other countries. These workshops usually lasted one week, beginning with classroom lectures and videos and continuing with a hands-on programme on the construction and installation of TEDs. Many workshops also involved fishing vessel demonstrations and evaluations at sea. Through these workshops and related efforts, the United States had transferred TEDs technology to at least the following countries: Australia, Belize, Brazil, Brunei, Colombia, Costa Rica, Ecuador, El Salvador, Eritrea, Guatemala, Guyana, Honduras, India, Indonesia, Japan, Kenya, Mexico, Madagascar, Malaysia, Mozambique, Nicaragua, Panama, the People's Republic of China, the Philippines, Singapore, Suriname, Tanzania, Thailand, Trinidad and Tobago, and Venezuela. In many cases, the United States has provided multiple TEDs workshops in a given country. Recently, the United States had intensified its TEDs technology transfer efforts. In 1996 alone, the United States conducted TEDs training workshops in Mombasa, Kenya; in Songkla, Thailand; in Tegal, Indonesia; in Guayaquil, Ecuador; and in Orissa, India. The workshop in Thailand had been particularly well-attended, including participation by fisheries managers and shrimp fishermen from Australia, Brunei, Japan, Malaysia, the Philippines, Singapore and Thailand. In 1997, to date, the United States had held TEDs workshops in Mombasa, Kenya (for the second time); in several locations in Australia; in Cochin, India; and in Chittagong, Bangladesh. Thus, through the efforts of the United States Government and other governments, in cooperation with industry and environmental groups, TEDs had become a true environmental success story.

134. India submitted that prior to the introduction of its import restriction, the United States had not made any effort to transfer TED technology to the Government of India or, to India's knowledge, to any industries in India. Since the introduction of the embargo, the US NMFS had organized two workshops in India in collaboration with the authorities of two of India’s coastal States, and concerned Indian agencies. While TEDs were demonstrated at the workshops, India did not believe such demonstration constituted a transfer of TED technology. In fact, at the Cochin workshop, officials from the United States had demonstrated TEDs brought by NMFS experts from the United States. Although the US experts participating were shown TEDs fabricated by the Central Institute of Fisheries Nautical and Engineering Training (CIFNET), Cochin, these Indian-fabricated TEDs were not used by the participants in the workshop during demonstration sessions. Consequently, the TEDs demonstrated during this workshop were made in the United States, and were not specifically

designed for the use in Indian waters. Recommendations issued after the Paradeep workshop called for further work on the possible use of TEDs in India. No recommendations were issued at the end of the Cochin workshop. During these two workshops, there was no indication given by US experts regarding the sharing of any new TED technology with India.

135. Malaysia responded that there had been no transfer of TED technology to its Government or to industries in Malaysia. No workshop had been conducted by the United States in Malaysia itself apart from the participation by Malaysia in a 1996 regional workshop organized by the Thai Department of Fisheries in cooperation with the Department of Foreign Trade and NMFS. Two experiments had also been carried out with TEDs, one prior to the workshop, and the other after the workshop. It was to be noted that whilst the cooperation extended by NMFS involved an NMFS official giving a talk on the use of TED, the experiments did not involve any US participation at all. Malaysia noted, furthermore, that the conservation strategies and TEDs workshops mentioned by the United States recommended and endorsed the use of TEDs through bilateral collaboration and friendly technology transfer. Much more could be achieved for sea turtles in this manner as opposed to the imposition of the import prohibition.

136. Pakistan responded that it was unaware of any efforts made by the United States, either before or after the imposition of the embargo, to transfer TEDs technology to Pakistan. The United States itself had recognized that there were serious costs and implementation issues associated with the manner in which the embargo had been implemented. In addition, a document submitted by the United States indicated that "in most countries there is a shortage of personnel adequately trained and supported to design and carry out research and conservation programmes, liaise with diverse sectors of society ... and enforce laws and regulations related to the conservation of sea turtles and the habitats on which they depend".[229] Nor had the United States conducted any TEDs training workshops in Pakistan.

137. Thailand noted that the United States met twice with Thai officials for the purpose of transferring technology. In the first instance, one gentleman from the US embassy visited Thai officials in February 1996 and provided a diagram of a TED together with indications where TEDs could be purchased in the United States. In the second instance, a four -person team from the NMFS attended a four day workshop in October 1996, for Thai fishermen. This workshop was financed and organized by the Thai Department of Fisheries and Department of Foreign Trade. The US representatives made some introductory comments concerning TEDs installation and use, and showed a video which described how TEDs were used in the United States. The video also briefly described how to install a TED. The major focus of the workshop was to convey the results of TEDs experiments and experience in Thailand, Australia, Malaysia and the Southeast Asian Fisheries Development Center (SEAFDEC).

138. The United States replied that Malaysia had attended a TEDs training workshop in Songkla, Thailand, held on 7-10 October 1996. More than 200 hundred participants were present, including 88 Thai fishermen and officials from Malaysia, Singapore, Brunei, The Philippines, Australia and Japan. This workshop included class training, a demonstration on the installation of TEDs and actual use of TEDs in Thai shrimp trawl nets. Moreover, the government of Malaysia had invited the US NMFS to conduct a workshop in Malaysia, but had withdrawn the invitation at the last minute. Pakistan had never asked for a TEDs workshop to be conducted in Pakistan and the Government of that country had recently declined an invitation to attend a TEDs workshop in Chittagong, Bangladesh. If Pakistan or any other country needed further information on TEDs, the United States would be glad to provide

[229]IUCN (World Conservation Union), (1997), A Marine Turtle Conservation Strategy and Action Plan for the Western Indian Ocean.

it. Two TEDs training sessions had been held in India. The TEDs workshops conducted by the United States provided comprehensive training in the design, construction, installation and use of TEDs. The workshop usually lasted for 3-4 days, starting with classroom lectures and video instruction, and continuing with hands-on demonstrations in which the participants themselves installed a TED in a net. US gear technicians usually constructed at least one TED from local materials and provided training in the construction of TEDs using those materials. During the October 1996 workshop conducted in Songkla, Thailand, US officials had constructed seven TEDs from local materials. The workshops concluded with a full-day demonstration of the proper way to use a shrimp trawl net with a TED installed. The at-sea sessions repeated the instruction on the installation of a TED, and also provided direction on deploying, retrieving and handling a TED. US officials accompanied shrimp fishermen on two or three vessel trips to nearby fishing grounds for the purpose of further teaching them the practical aspects of using TEDs in the local fishing conditions. The United States left the TEDs it constructed, along with instruction manuals, free of charge, once the training was completed. The United States also invited foreign fisheries officials and fishermen to visit the NMFS harvesting systems laboratory in Pascagoula, Mississipi for further training. Representatives from many nations had responded favourably to these invitations, including a delegation from the Thai Department of Fisheries, who had come to the laboratory in mid-July 1996. On that visit, the Thai delegation had also invited a TEDs manufacturer and had observed trawl operations with TEDs in the Gulf of Mexico. The United States remained ready and willing to provide technical assistance to make TED technology available to any nation that requested it.

7. Scope and purpose of Section 609

139. India, Pakistan and Thailand stated that pursuant to Section 609, nations had been forced to quickly adopt TEDs requirements or lost the right to trade with the United States. The US Government had recognized during the litigation before the CIT that "[e]ven assuming the willingness of affected nations to comply with Section 609, a May 1, 1996 compliance date will achieve no conservation benefit". Specifically, a memorandum filed by the US government during the course of that litigation stated:

> "Even assuming the willingness of affected nations to comply with Section 609, a May 1, 1996, compliance date will achieve no conservation benefit. Significant training and practice in the construction, installation and maintenance of TEDs are required before TEDs can be effective in protecting sea turtles. ... In fact, the National Marine Fisheries Service ("NMFS") still engages in numerous training workshops for domestic fishermen, though the TEDs requirement has been in place for nearly a decade. ... For this reason, it is unlikely that shrimp fishermen will be able to use TEDs effectively in the short term to protect sea turtles. ... Immediate implementation of this Court's order, therefore, will not result in any benefit to sea turtles in those nations newly covered, because fishermen with no experience in TEDs use are not likely to be able to use them effectively in the near term to protect sea turtles. ... Furthermore, there are difficulties inherent in the implementation of a TEDs programme that will be exacerbated by the short time period imposed by the Court's order. These include limitations on funding for the adoption of a TEDs programme, acceptance by the affected industry of newly imposed requirements and loss of shrimp associated with the improper use and installation of TEDs. ... Without the time needed to resolve these problems, and the benefit of a cooperative training programme, these countries may abandon initial attempts at compliance, resulting in a net loss to sea turtle conservation". [230]

[230]United States Court of International Trade, Earth Island Institute v. Warren Christopher and National Fisheries Institute, Inc ., Memorandum in Support of Defendants' Motion for Modification of 29 December 1995, Order, pp. 11-12.

While the stated goal of Section 609 may have been to promote the protection and conservation of sea turtles, India, Pakistan and Thailand were of the view that, as recognized by the US Government, Section 609 as applied did not accomplish this goal.

140. India, Pakistan and Thailand further argued that this case was not about preventing imports of "turtle-unsafe" shrimp into the United States. Current US regulations provided that shrimp caught in trawl nets equipped with TEDs might not be imported into the United States unless the exporting nation was certified under Section 609. In order to be certified, a country had to show that all shrimp, whether consumed domestically, exported to the United States, or exported to other Members, was harvested using TEDs.[231] Thus, the purpose of the shrimp embargo was not simply to prevent importation into the United States of shrimp caught with technologies that might or might not pose a threat to sea turtles, it was to dictate the environmental policy that was to be followed by other Members with respect to all shrimp caught within their jurisdiction if they wished to export any shrimp to the United States.

141. The United States responded that, contrary to what the complainants asserted, the US Administration had never claimed that the applicability of Section 609 to shrimp harvested by nations outside the Wider Caribbean/Western Atlantic region would not promote sea turtle conservation. Section 609 initially applied only to shrimp harvested in the Wider Caribbean/Western Atlantic region. On 29 December 1995, the CIT determined that Section 609 applied on a global basis as of 1 May 1996. The US Administration asked that court to delay the effective date of its ruling by one year. In support of that request, it noted that most of the newly affected countries would be unlikely to adopted comprehensive TEDs programmes by 1 May 1996. However, the United States had never stated that the application of Section 609 to shrimp harvested in nations outside the Wider Caribbean/Western Atlantic region would not promote sea turtle conservation once these nations adopted comprehensive TEDs programmes. Despite the arguments of the US Administration, the Court had denied the request to delay the effective date of its ruling, which prompted the US Administration to redouble its efforts to provide TEDs technology to the newly affected countries, particularly in the South Asia region, so as to maximize their access to TEDs and to decrease the amount of time it would take them to adopt effective TEDs programmes. The United States further argued that the complainants appeared to seriously misapprehend the scope of Section 609; they appeared not to understand the categories of shrimp and products of shrimp to which the statute applied. The complainants accurately recognized that Section 609 did not apply to (and thus did not affect the importation of) shrimp or products of shrimp harvested by aquaculture ("aquaculture shrimp"). Aquaculture shrimp constituted the large majority of shrimp harvested in each of these nations. What the complainants appeared not to understand was that Section 609 also did not apply to (and thus did not affect the importation of) shrimp or shrimp products harvested by other means that were not harmful to sea turtles, which, for ease of discussion, could be referred to as "TED-caught shrimp", "artisanal shrimp", and "cold-water shrimp", respectively.[232]

142. The United States believed that some of the misunderstanding may have its origins in the issuance of two rulings on this point by the CIT in Earth Island Institute v. Christopher on 8 October

[231] India, Pakistan and Thailand referred here to wild shrimp caught by mechanical means in warm waters.

[232] The United States referred here to "shrimp harvested exclusively by means that do not involve the retrieval of fishing nets by mechanical devices or by vessels using gear that, in accordance with the US programme described above, would not require TEDs" and to "species of shrimp, such as the pandalid species, harvested in areas in which sea turtles do not occur" (1996 Guidelines, 61 F.R. 17343). The United States noted that the term "artisanal shrimp" in this situation actually covered a wide variety of shrimp harvested with gear that did not harm sea turtles, including certain kinds of modern trawl gear in which sea turtles did not get caught. Similarly, the term "cold-water shrimp" in this situation covered shrimp harvested in all environments in which sea turtles did not occur; e.g. in fresh water.

and 25 November 1996. The effect of those two rulings had been to reaffirm that Section 609 did not apply to aquaculture shrimp, artisanal shrimp or cold-water shrimp. These rulings had, however, determined that Section 609 did apply to TED-caught shrimp. The US Administration believed the ruling on TED-caught shrimp to be in error and had appealed it to the US Court of Appeals for the Federal Circuit. The United States noted, however, that the outcome of this appeal would appear to have no bearing on the four complainants since Thailand had adopted a comprehensive requirement for TEDs use in 1996 - and was accordingly certified pursuant to Section 609 - while the other three complainants had not instituted any TEDs requirements at all.

C. TRADE IMPACT

143. India explained that, as a result of its large size and a coastline extending more than 8,085 kilometres, it had a well-developed but fragmented fishing industry. The number of mechanized vessels in India was estimated to be 47,000. Most of these vessels were rudimentary. In addition to the mechanized vessels, there were approximately 200,000 traditional boats. India submitted that the United States began enforcing the embargo on shrimp consignments in October 1996. Since that time, there had been a variety of adverse effects on India's once -thriving shrimp industry. The discriminatory effects of the embargo imposed by the United States had led to a dramatic decline in India's shrimp exports to the United States. Two major Harmonized Tariff Schedule (HTS) categories of shrimp had been affected by the embargo: HTS 0306.13.00, Shrimps and Prawns, Not Frozen and HTS 1605.20.10, Other Prepared Shrimp and Prawn Products.

144. India noted that the data from US imports statistics clearly demonstrated that the rapid decline in India's shrimp exports was proximately caused by the embargo. US import data indicated that the value of imports of fresh shrimp from India classified in HTS category 0306.13.00 fell from US$10.9 million to US$6.8 million, a decline of nearly 60 per cent, from October to November 1996. While shipments had begun to increase slightly in January 1997, they would not reach the levels that would be possible, absent the embargo. The decline in Indian shrimp sales classified under HTS 1605.20.10 had been even more dramatic, falling from approximately US$1.6 million in October 1996 to only US$935,500 in November 1996 and only US$750,500 in December 1996. This rapid decline in shipments had hurt the Indian shrimp industry, which was already suffering on the account of a disease that struck some of India's coastal districts during 1995 and 1996.

145. India argued that the US embargo had had a ripple effect on the entire Indian shrimping industry. For example, because shrimp raised in aquaculture was allowed to be shipped to the United States, a larger proportion of the total share of farm -raised shrimp was now being exported to the United States, denying local and other export markets the benefits of aquaculture shrimp. This had harmed India's commercial shrimp vessels, as the foreign demand for wild harvested shrimp had fallen. The US action had also had the effect of causing a great deal of uncertainty within the Indian shrimp industry. The socio -economic condition of the coastal community in India was closely linked with fishing and the embargo had adversely affected their livelihood. The embargo had also created great difficulties to many processing units in India. There were a number of collection centres where raw materials from various sources were collected, iced and sent to the processing units for processing. The embargo had forced these centres to maintain separate tubs and storage facilities for material from different sources, which had lead to considerable waste of time and under -utilization of facilities already created. The US actions had also had additional extraterritorial effects on India's shrimping industry. For example, because a certification form had to accompany an export of shrimp, the Government of India had had to implement a system to enable government inspectors to sign the Shrimp Exporter's Declaration. In a country the size of India, this had proved to be very difficult.

Moreover, many shrimpers had been inconvenienced since it was time-consuming for exporters to prepare the necessary forms and obtain the required authorization from the competent Indian authorities.

146. Malaysia argued that its exports of shrimps to the US market - its fifth largest importer of that product - constituted about 5.6 per cent of its total export of shrimp in 1995. Malaysia contended that the enforcement by the US of Section 609 had significantly affected the shrimp export industry in Malaysia. In 1995 the total value of exports of shrimp to the US was US$9.1 million. In 1996, it was US$4.86 million. Exports had fallen from US$2.87 million (May -October 1995) to US$1.8 million in the corresponding months of 1996 which amounted to a drop of 38 per cent. The import prohibition had affected most of the exporters who had ceased their exports of shrimp to the United States after the import prohibition came into effect in May 1996. The company Great Ocean Seafood Sdn. Bhd. had their last consignment exported on 8 August 1996. As of September 1996 the company Rex Canning Sdn. Bhd. was the only exporter of shrimp to the United States since 60 per cent of its shrimp came from aquaculture. Several exporters had ceased exporting to the United States and were now exporting to other markets. Most of Malaysia's exports of shrimps to the United States were from the States of Sabah and Sarawak. The export from these two states constituted about 92.6 per cent of the total of Malaysia's shrimp export to the United States for 1995 and 87.8 per cent (January-October) for 1996. About 95 per cent of the shrimp exported to the United States were wild harvested.

147. Pakistan argued that the shrimp embargo had dramatically decreased shrimp exports to the United States and disrupted Pakistan's domestic shrimp market. There had been an adverse effect on Pakistan's shrimp industry since October 1996, when the United States began enforcing the embargo against Pakistan. Even though shrimp was harvested in Pakistan exclusively by manual means, the United States insisted that Pakistan implement a programme requiring the use of TEDs. Because Pakistan remained uncertified, it had led to a dramatic impact on shrimp sales to the United States. The embargo had decimated Pakistan's exports to the United States. Pakistan noted that, according to US import data, the value of imports of fresh shrimp from Pakistan classified in HTS category 0306.13.00 fell from US$1.8 million in October 1996 to US$707,000 in November and only US$115,000 in December. Pakistan's export statistics showed a similar trend. Obviously, this steep decline in shipments had had a negative impact on Pakistan's fishermen and shrimp industry. Moreover, the US embargo had had, and continued to have, a negative psychological effect on Pakistan's shrimp industry. It had been quite difficult attempting to disseminate the details concerning the US embargo to the small fishing villages located on Pakistan's coast. Simply put, the US action had caused a great deal of uncertainty in Pakistan's shrimp industry. The US actions had also had additional extraterritorial effects. For example, because a certification form had to accompany an export of shrimp, the Government of Pakistan had had to train government officials and to implement a system to enable government inspectors to sign the Shrimp Exporter's Declaration. Moreover, many shrimpers had been greatly inconvenienced since they had to worry about filling out US government forms proving their method of fishing.

148. Thailand submitted that the US shrimp embargo imposed pursuant to Section 609, effective on 1 May 1996, had resulted in a loss of trade for Thailand. Statistics prepared by the Global Trade Information Service compiled from official US import statistics, showed that between May 1996 and December 1996, the period during which Thailand was not certified, exports of shrimp from Thailand to the United States had declined by approximately 18 per cent from the same period in 1995. On 8 November 1996, the United States had certified Thailand pursuant to Section 609. The State Department had not previously certified Thailand because "the Government of Thailand had not required all commercial shrimp trawl vessels subject to its jurisdiction that operated in waters where there is a likelihood of intercepting sea turtles to use turtle excluder devices at all times". However,

Thailand's present and future ability to export wild-harvested shrimp to the United States was conditioned on maintaining its status as a certified country. Certification could be revoked at any time, as illustrated by the cases of Ecuador and Colombia which had been decertified on 1 May 1997 because an on-site investigation conducted by US officials had indicated that there had been wide-spread non-compliance with each country's law requiring the use of TEDs. Certification was therefore dependent on US review of the measures which had been taken by Thailand in order to achieve certification (i.e. requiring TEDs use on its shrimping vessels and maintaining a credible programme of enforcement).

149. The United States argued that the measures at issue in this dispute had not disrupted the importation of shrimp into the United States. Those measures went into effect with respect to the complainants and other shrimp harvesting nations outside the Wider Caribbean/Western Atlantic region on 1 May 1996.[233] Even though the measures were in effect throughout the last two thirds of 1996, 1996 US shrimp imports in 1996 were within 1 per cent of the average annual level from 1993-1995. Furthermore, were the US measures at issue in this dispute truly disruptive of trade, one would expect that a restriction in supply would have resulted in a corresponding increase in the price of shrimp imports into the United States. The opposite had occurred. The average unit value of US shrimp imports had declined between 1995 and 1996, falling from US$9.52 per kg to US$9.30 per kg. The United States further argued that US shrimp imports from India had increased since 1 May 1996, rising by 7.85 per cent in value terms and 6.9 per cent in volume terms. Comparing the eight month period from May-December 1996 with the same period in 1995 revealed an even more startling increase: US imports of shrimp from India had risen 27.1 per cent in value terms, and its share of total US shrimp imports had also increased by 29.4 per cent. India's exports of shrimp to the United States had also increased since 1 May 1996 relative to the average of the three preceding years. Finally, virtually none of these increases was attributable to an increase in the per unit price of India's shrimp exports, which had gone up less than 1 per cent during this period. Similarly, US imports of shrimps from Pakistan had increased by 8.3 per cent from 1995 to 1996. A comparison of the May-December periods in 1995 and 1996 showed an increase of 19.7 per cent in value terms, 5.7 per cent in volume terms. As with India, virtually none of these increases was attributable to an increase in the per unit price of Pakistani shrimp exports to the United States, which had increased only 4 cents per kg (from US$5.76 to US$5.80).

150. India Pakistan and Thailand maintained that their exports of shrimp and shrimp products to the United States dropped substantially after the imposition of the embargo. The fact that total imports into the United States had not decreased did not mean that the measure had not disrupted trade, it simply meant that the measure had resulted in preference for countries that had been certified and that other nations had had to alter trading patterns by sending only exempted shrimp to the United States.

[233] The United States noted that the measures did not, however, affect importation of shrimp harvested in these nations and shipped to the United States before 1 May 1996, even if such shrimp did not actually reach the United States until after 1 May 1996.

151. India added that the reported increase in the India's exports from May to December 1996 could only have occurred because of an increase in the exportation to the United States of shrimp harvested in India by non-mechanical artisanal means or by aquaculture farming. Thus, even assuming that the Panel chose to overlook the decline in India's exports to the United States, the very fact that India had to shift its exports based on method of harvest and country of destination, and then incur administrative expenses associated with ensuring that only non-mechanical artisanally harvested shrimp and aquaculture shrimp was exported to the US market, while mechanically harvested shrimp was exported to other countries, meant that the embargo affected trade. India noted that figures provided by the United States indicated that imports from India in May-December 1996, totalling US$1.821 million, was in fact lower than imports from India during the same period in 1995, totalling US$1.856 million.[234] India refuted the US assertion that imports in volume terms from India during the calendar year 1996 were higher than in the calendar year 1995. In volume terms, figures from the United States[235] showed clearly that the embargo had affected general shrimp exports from India to the US market, with the worst effect on HTS 0306.13.00, which had declined from a level of 2,165,110 kgs in September 1996 to 1,544,510 kgs in October 1996, and had continued to decline steadily thereafter to register 1,134,930 kgs in November and 1,113,639 kgs in December 1996. This declining trend was significant in comparison to the upward trend in India's export of this product to the United States during the same October-December period both in 1995, when India's overall shrimp exports were adversely affected by a disease that struck India's coastal districts where shrimp was harvested, and in 1994. In 1995, exports in the month of November were 1,282,511 kgs and in December 1,686,536 kgs. In 1994, corresponding figures were for November 1,538,009 kgs and for December 2,039,976 kgs.

152. Malaysia stated that, although the import prohibition had not disrupted the volume of import of shrimp into the United States, exporting countries affected by the import prohibition suffered a loss of market share. The US market share which was held by exporting countries now affected by the import prohibition (uncertified countries) had been taken over by certified countries. Thus, even if the total imports had not been affected, it did not necessarily mean that exports of countries affected by the action had not been adversely affected by the import prohibition. In the case of Malaysia there had been a decline in the export of shrimp and shrimp products to the US as previously indicated.

153. For Pakistan, the fact that total US shrimp imports had remained relatively constant since the imposition of the embargo and that US shrimp import prices had dropped slightly, demonstrated only that US shrimp demand was fairly constant, not that the embargo had had no effect on trade. The US analysis failed to consider the impact of the embargo on exporting countries, such as a shift in markets for non-certified countries (as was the case for Pakistan), or an increase in market share for certified countries.

154. Thailand submitted that, according to information received by the Thai Department of Fisheries, in the spring of 1996, the imminent embargo and unknown form that the US regulations would take created such uncertainties in the marketplace that middlemen told Thai shrimp fishermen they could not continue to pay the market price and take the risk that the shrimp they purchased could not be sold in the United States. The price charged by the Thai shrimpers dropped accordingly. At least part of this decline was then passed on to customers in the United States on shrimp that could still be exported to the US market with a declaration that such shrimp had been caught by a vessel deploying a TED (this particular form of declaration was ruled unlawful by the CIT in October 1996).

[234]Data derived from official US Department of Commerce statistics in four HTS tariff categories (03061300, 03062300, 16052005 and 16052010).

[235]Bureau of Census (IM-145) # 723948.

In short, the embargo had two adverse trade effects: it reduced the total volume and the average unit value of shrimp exported to the United States. The embargo had resulted in a substantial amount of uncertainty in the industry even before its imposition. For example, in March 1996, when exporters of Thai shrimps were aware of the possibility of the embargo, it was unclear whether the embargo would apply to both aquaculture and wild-harvested shrimp. Many exporters did not want to export shrimp due to the perceived risk of absolute loss. There was also a sharp decline in prices associated with this uncertainty: the middlemen claimed they could not pay prevailing prices due to the uncertainty regarding the ability to export to the United States. Finally, the embargo resulted in a loss to Thailand of US market share. For instance, from May-December 1995, imports of shrimp from Thailand under the 0306 HTS heading accounted for 31 per cent of total imports to the United States. However, during May-December 1996, Thai fishermen accounted for only 27 per cent of total imports to the United States, a decrease of 4 per cent.[236] Thailand had therefore been forced to explore the possibility of increasing exports to other markets, which had resulted in the expenditure of both time and money.

D. COMMUNICATIONS RECEIVED FROM NGOs

155. The Panel received two amicus briefs submitted by non-governmental organizations (NGOs). The first one was submitted on 28 July 1997 jointly by the Center for Marine Conservation (CMC) and the Center for International Environmental Law (CIEL); the second one, submitted by the World Wide Fund for Nature (WWF), was received by the Panel on 16 September 1997. The Panel acknowledged receipt of the two amicus briefs. The NGOs concerned had also sent copies of these documents directly to the parties to the dispute. In a letter dated 1 August 1997 and at the second substantive meeting of the Panel, India, Malaysia, Pakistan and Thailand requested the Panel not to consider the content of the amicus briefs in its examination of the matter under dispute. At the second substantive meeting of the Panel, the United States, stressing that the Panel could seek information from any relevant source under Article 13 of the DSU, urged the Panel to avail itself of any relevant information in the two amicus briefs, as well as in any other similar communications. Taking the view that it had not requested such information under Article 13 of the DSU, the Panel informed the parties to the dispute that it did not intend to take these documents into consideration. The Panel observed, however, that if any of the parties to the dispute wanted to put forwards these documents, or part of them, as part of their own submission to the Panel, they were free to do so; the other parties would then have two weeks to respond to the additional material. The United States availed itself of this opportunity by designating Section III ("Statements of Facts") of the amicus brief from CMC and CIEL, as Exhibit JJ to its second submission to the Panel (hereinafter "Exhibit JJ").

156. Regarding the procedural aspects, India noted that the Panel had acted in an appropriate manner under the provisions of Article 13 of the DSU by refusing to accept the amicus brief submitted by the Centre for Marine Conservation, a non -governmental organization. In India's view, by adopting the "factual portions" of the amicus brief, as an attachment to its oral statement made at the second substantive meeting of the Panel, the United States had acted against the provisions of paragraph 1 of Article 12 and paragraph 7 of Appendix 3 of the DSU, especially since the latter clearly stipulated that the purpose of the second substantive meeting was for formal rebuttals to be made. The United States had decided to attach the "factual portions" of the amicus brief to its oral statement only at the end of the second substantive meeting of the Panel with the parties, after the

[236]Thailand indicated that these percentages were based on US import statistics which showed total value of shrimp imports under the 0306 Harmonized Tariff Schedule heading of approximately US$1,872,708,000 in 1995 and US$1,726,520,000 in 1996; imports under the same heading from Thailand were approximately US$571,717,000 in 1995 and US$469,891,000 in 1996.

formal rebuttal statements had been made and the question-and-answer session completed. Therefore, the attachment of this material in this manner could not be considered as an integral part of the United States' formal rebuttal, especially since the United States, as the party complained against, had exercised its right to take the floor first, and in its oral statement formally rebutted the written rebuttals submitted to the Panel by the co-complainants, including India. In this oral statement, the United States had not indicated that the "factual portion" of the amicus brief would be attached to its oral statement. In fact, the United States' oral statement made the following reference to the amicus brief: "Under Article 13 of the DSU, the Panel may seek information from any relevant source ... We submit that the Panel should avail itself of any relevant information in the Centre for Marine Conservation communication, as well as in any other similar communications". It was therefore clear that the amicus brief, either in its entirety or in its "factual portions", was not an integral part of the formal rebuttal made by the United States under the DSU procedures. Indeed, if any portion of the amicus brief, including its "factual portion", were an integral part of the oral statement made by the United States, then the oral statement made at the commencement of the second substantive meeting of the Panel should have referred to such portions in order to provide the necessary linkage between Exhibit JJ and the specific arguments made by the United States in its statement. In the absence of any such reference, this Exhibit could not be considered to be relevant to any specific arguments contained in the US formal rebuttal. India would therefore submit that all the information contained in Exhibit JJ attached to the oral statement of the United States should be rejected on these procedural grounds by the Panel.

157. Malaysia recalled that, by a letter dated 1 August 1997 addressed to the Chairman of the Panel, Malaysia and the other complainants had objected to the consideration of the amicus brief. This objection was based on Article 13 of the DSU which did not permit anyone to make unsolicited submissions. Article 13 merely provided that the Panel itself might seek information and technical advice from any individual or body which it deemed appropriate. It was to be noted that the amicus brief comprised not only technical advice but also legal and political arguments. Thus, the brief did not fall within the purview of Article 13. Malaysia wished to seek clarification from the Panel as to the position of the amicus brief vis-à-vis the parties. There was no legal premise upon which the Panel could rule that a party was free to adopt the arguments of the amicus brief and have it endorsed as part of their submission. Article 13 did not allow for the acceptance of an amicus brief from NGOs. The only instance where a non-party to a dispute could appear before the Panel or gain access to it was through Article 10 of the DSU, which provided third parties an opportunity to be heard by the Panel or to make a written submission.

158. Thailand objected to the participation in this dispute by the Center for Marine Conservation or by any other non-governmental organization through the filing of briefs or oral presentations. The WTO dispute settlement procedures nowhere provided that parties which were not Members could participate in the proceedings. Under Article 13 of the DSU, the panel itself could seek information or technical advice from any individual or body within the jurisdiction of a Member.

159. Pakistan endorsed the comments made by India, Malaysia and Thailand.

160. The Panel noted that the arguments presented in Exhibit JJ are in essence the same as those put forward by the United States and reflected in Section III.B of this Report. In their responses to Exhibit JJ, India, Malaysia, Pakistan and Thailand maintained their arguments as developed in Section III.B.

E. LEGAL ARGUMENTS

1. Articles I, XI and XIII of GATT

161. India, Pakistan and Thailand argued that the embargo on shrimp and shrimp products was inconsistent with the most-favoured-nation ("MFN") principle embodied in Article I:1 of GATT 1994 because physically identical shrimp and shrimp products from different nations were treated differently by the United States upon importation based solely on the method of harvest and the policies of the foreign government under whose jurisdiction the shrimp were harvested. Imports of shrimp and shrimp products from some shrimp harvesting nations were denied entry into the United States while imports of like shrimp and shrimp products from other nations were permitted entry into the United States. Further, even assuming, arguendo, that the method of harvest did affect the nature of the shrimp, the embargo violated Article I:1 because, pursuant to the embargo, wild shrimp harvested by use of TEDs were forbidden entry into the United States if harvested by a national of a non-certified country, while shrimp harvested by the same method by a national of a certified country would be permitted entry into the United States. The embargo, as applied, was also inconsistent with Article I:1 of the GATT 1994 because initially affected nations had been granted a phase-in period of three years, while newly affected nations had not been given a similar phase-in period. Thus, initially affected nations had been given the opportunity to implement the required use of TEDs without substantially interrupting shrimp trade to the United States. Products from these countries had therefore been given an "advantage, favour, privilege or immunity" over like products originating in the territories of other Members.

162. India, Pakistan and Thailand submitted that Article XI:1 of GATT 1994 provided for the general elimination of quantitative restrictions on imports and exports. The scope of Article XI:1 was comprehensive, applying to all measures instituted or maintained by a Member prohibiting or restricting the importation, exportation or sale for export of products other than measures that took the form of duties, taxes or other charges.[237] Measures prohibited by Article XI:1 included outright quotas and quantitative restrictions made effective through import or export licenses.[238] The US embargo on imports of shrimp and shrimp products pursuant to Section 609 violated Article XI:1 of the GATT. The embargo constituted a prohibition or restriction on the importation of shrimp and shrimp products from the complainants. Further, the embargo plainly was not in the nature of "duties, taxes or other charges". The fact that Thailand was now certified and therefore was not presently subject to the embargo did not alter the fact that Section 609 violated Article XI:1. Certification was contingent on the country in question acting in conformity with the certification requirements of US law and, as evidenced by the recent de-certification of Ecuador and Colombia, could be revoked at any time. The Tuna I[239] and Tuna II[240] Panel Reports involved a measure virtually identical to the restriction on shrimp imports at issue in this dispute. These two Panels reviewed primary and secondary embargoes maintained by the United States on tuna imported from nations that had not implemented conservation programmes "comparable" to those in effect in the United States to protect

[237]Panel Report on Japan - Trade in Semi-conductors, adopted 4 May 1988, BISD 35S/116, paragraph 104.

[238]See for instance the Panel Report on Thailand - Restrictions on Importation of and Internal Taxes on Cigarettes, adopted 7 November 1990, BISD 37S/200.

[239]Panel Report on United States - Restrictions on Imports of Tuna, circulated 3 September 1991, not adopted, BISD 39S/155.

[240]Panel Report on United States - Restrictions on Imports of Tuna, circulated 16 June 1994, not adopted, DS29/R.

dolphins incidentally taken by commercial fishermen harvesting tuna. In both cases, they found that the restriction constituted a violation of Article XI.[241]

163. India, Pakistan and Thailand further argued that Section 609 was inconsistent with Article XIII:1 of GATT 1994 because it restricted the importation of shrimp and shrimp products from countries which had not been certified, while "like products" from other countries which had been certified could be imported freely into the United States. The United States permitted or denied entry of shrimp and shrimp products based on the method of harvest. However, the method of harvest did not affect the nature of the product, as noted by the Tuna II Panel. Indeed, all foreign shrimp and shrimp products had the same physical characteristics, end-uses, and tariff classifications and were perfectly substitutable.[242] Thus, shrimp products which may be imported into the United States pursuant to Section 609 were "like" shrimp products from non-certified countries which were denied entry. The differential treatment of "like products" from certified and non-certified countries violated Article XIII:1 of the GATT.

164. Even assuming, arguendo, that the method of harvest did affect the nature of the product, the embargo violated Article XIII:1 because, pursuant to the embargo, wild shrimp harvested by use of TEDs were forbidden entry into the United States if harvested by a national of a non-certified country, while shrimp harvested by use of TEDs by a national of a certified country would be permitted entry into the United States. In other words, the identical product (shrimp caught by use of TEDs) was permitted entry if imported from a certified country and denied entry if imported from a non-certified country.

165. India, Pakistan and Thailand further argued that the embargo as applied, was inconsistent with Article XIII:1 because newly affected nations had received only four months notice before shrimp and shrimp products harvested without use of TEDs would be refused entry into the United States, while initially affected nations had been granted a three-year phase-in period. Thus, importation of like products from initially affected nations was not "similarly" prohibited. Finally, the fact that Thailand had been certified and therefore was not presently subject to the embargo did not alter the fact that the embargo violated Article XIII:1. Certification was contingent on the country in question acting in conformity with the certification requirements of US law, such as requiring a declaration form to accompany all shipments and, as evidenced by the recent de-certification of Ecuador and Colombia, could be revoked at any time.

166. Malaysia argued that the import prohibition imposed by the United States under Section 609 on the importation of shrimp and shrimp products was contrary to Article XI of GATT 1994. The United States intended to coerce other nations to follow its regulatory programme and deemed that

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[241] Panel Report on United States - Restrictions on Imports of Tuna, circulated 16 June 1994, not adopted, DS29/R; Panel Report on United States - Restrictions on Imports of Tuna, circulated 3 September 1991, not adopted, BISD 39S/155. See also Panel Report on United States - Prohibition of Imports of Tuna and Tuna Products From Canada, adopted 22 February 1982, BISD 29S/91.

[242] India, Pakistan and Thailand referred to the Panel Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/9, paragraph 6.9 ("Chemically identical imported and domestic gasoline by definition have exactly the same physical characteristics, end-used, tariff classification, and are perfectly substitutable and are therefore like products").

other nations' conservation efforts were totally inadequate to ensure the survival of sea turtles. The policy requirement was that exporting countries had to ensure that their fishermen use TEDs approved in accordance with US standards while trawling for wild harvested shrimp. It was a policy condition as there were definitely other conservation methods or practices which were equally effective if not better to ensure the survival of sea turtles. As explained in Section B, Malaysia was practising effective turtle conservation policies. Therefore the import prohibition was arbitrary, discriminatory and was nothing else but a disguised restriction on international trade with a view to protecting their domestic shrimp industry with a total disregard to international law. The import prohibition was not in the nature of "duties, taxes, or other charges" and therefore was inconsistent with Article XI:1

167. Malaysia submitted that Article XI provision had been previously considered in Tuna I and Tuna II. In Tuna I, the panel had found that the direct import prohibition and the provisions of the Marine Mammal Protection Act ("MMPA") under which it was imposed were inconsistent with Article XI:1. In Tuna II, the panel had found that the embargoes imposed by the United States were prohibitions or restrictions in the terms of Article XI as they banned the import of tuna or tuna products from any country not meeting certain policy conditions, and were not duties, taxes or other charges. In the present case Malaysia contended that Section 609 was contrary to the US obligations under the General Agreement. The import prohibition imposed by the United States fell under Article XI as it banned import of shrimp or shrimp products from any country not meeting certain policy conditions under Section 609. Malaysia submitted that the findings of Tuna I and Tuna II were equally applicable to the facts of this case and therefore urged the Panel to find that the import prohibition was inconsistent with Article XI. Malaysia further argued that the import prohibition imposed by the United States was not justified under paragraph 2 of Article XI since that paragraph referred to situations of "critical shortages of foodstuffs or other essential products" (paragraph 2(a)) or "the application of standards and regulations for the classification, grading or marketing of commodities in international trade", (paragraph 2(b)). Nor is paragraph 2(c) applicable, since it refers solely to "restrictions".

168. Malaysia further submitted that nations within the wider Caribbean regio n had been allowed three years to adopt a programme after the publication of the US requirement, while newly affected nations had received only four months notice (29 December 1995 to 1 May 1996) before being subject to the embargo. Malaysia itself had had only three months to comply before the import prohibition came into effect, as shown by a letter dated 22 January 1996 from the US Embassy in Kuala Lumpur to the Department of Fisheries, Ministry of Agriculture which stated that "the United States Department of State must receive from your government all necessary information for a certification by April 1, 1996". Malaysia argued that this differential treatment was discriminatory and inconsistent with Article XIII:I of GATT 1994.

169. With regard to the violation of Articles I, XI and XIII of GATT 1994 alleged by the complainants, the United States submitted that the complainants had the burden of proving the violation.[243] Since under Article XX nothing in the GATT 1994 was to be construed to prevent the adoption or enforcement of the measures at issue, there was little practical significance to attempts by the complainants to establish an inconsistency between these measures and other provisions of GATT 1994 and the United States did not need to address GATT Articles I, XI and XIII. The United States noted it did not dispute that, with respect to countries not certified under Section 609, Section 609 amounted to a restriction on the importation of shrimp within the meaning of Article XI:1

[243] Appellate Body Report on United States - Measure Affecting Imports of Woven Wool Shirts and Blouses from India , adopted 23 May 1997, WT/DS33/AB/R, p. 16 ("[A] party claiming a violation of a provision of the WTO Agreement by another member must assert and prove its claim").

of GATT 1994. However, the United States did not agree with complainants' claims under Articles I and XIII (particularly since the US measures applied equally to all harvesting nations), but if the Panel made a finding with respect to Article XI there would be no need to reach Articles I or XIII.

2. Article XX of GATT

(a) Preliminary observations

170. India, Malaysia, Pakistan and Thailand submitted that, according to dispute settlement practice, the burden of demonstrating that a measure fell under one of the general exceptions provided for in Article XX was on the party invoking that provision. Noting that the United States invoked in this case paragraphs (b) and (g) of Article XX, the complainants argued that the United States was not able to demonstrate that the measure at issue fell within the scope of either of these two exceptions.

171. The United States argued that this dispute concerned the measures it took to protect and conserve sea turtles, an endangered natural resource that all parties to this dispute had agreed needed to be protected and conserved. There had never been a clearer or more compelling case presented to the WTO for the conservation of an exhaustible natural resource or the protection of animal life or health than this dispute. The United States required its shrimp fishermen to harvest shrimp in a manner that was safe for sea turtles. In this case, the United States only asked that shrimp imported into the United States should be harvested in a comparable manner. In this way, the US market would not cause a further depletion of endangered sea turtle species and the United States was not forced to be an unwilling partner in the extinction of sea turtles. This dispute dealt with issues that were central to how the rules of the multilateral trading system interacted with the ability of Members, both individually and collectively, to meet critical environmental objectives. The United States considered that, in assessing the facts presented by the parties to this dispute, the Panel was not called on to undertake a study of the most effective methods for sea turtle conservation. Rather, the Panel needed only consider whether the United States had met its burden of showing that the US measures complied with the relevant requirements of Article XX.

172. The United States noted that the World Trade Organization Agreement ("WTO Agreement"), which was the first multilateral trade agreement concluded after the UN Conference on Environment and Development, provided that the rules of trade must not only promote expansion of trade and production, but must do so in a manner that respects the principle of sustainable development and protects and preserves the environment. Yet, the complainants claimed that in becoming a Member of the World Trade Organization, the United States had agreed to accept imports of shrimp whose harvest and sale in the US market might mean the extinction from the world of sea turtles for all time. This was not true. The WTO promised that nothing in the GATT 1994 might be construed to prevent the adoption and enforcement of measures "necessary to protect human, animal or plant life or health" and of measures "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production and consumption", subject to the requirement that "such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade". These provisions of the GATT 1994 promised that Members' measures to conserve natural resources and to protect animal life and health took precedence over any provisions of that instrument to the contrary. The United States noted that the first Appellate Body decision under the WTO also emphasized that the GATT 1994 allowed WTO Members to adopt measures to conserve and protect the environment. [244] As stated by the Appellate

[244]The United States referred to the Appellate Body Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/9, p. 18 ("Article XX of the General Agreement contains provisions designed to permit important state interests - including the protection of human health, as well the conservation of exhaustible natural resources - to find expression. The

Body, Article XX contained requirements designed to safeguard against measures that were intended to serve protectionist ends, rather than the important and legitimate policy objectives within the intended scope of Article XX. The record in this dispute established that the United States measures under Section 609 were bona fide measures to protect and conserve an exhaustible natural resource. The measures at issue were clearly within the scope of Article XX paragraphs (g) and (b) of GATT 1994 and thus fully consistent with US obligations.

173. The United States concluded that the right of WTO Members to take measures under Article XX of GATT 1994 to conserve and protect natural resources was reaffirmed and reinforced by the Preamble to the WTO Agreement. The first clause of the Preamble recognized that international trade and economic relations under the WTO Agreements should allow for "optimal use of the world's resources in accordance with the objective of sustainable development", and should seek "to protect and preserve the environment". In sum, the WTO Agreement stated affirmatively that protection and conservation of the environment were essential objectives that were to be supported by the WTO regime.

174. India, Pakistan and Thailand stressed that this case was not about conservation; it was about the imposition of unilateral trade measures designed to coerce other Members to adopt environmental policies that mirrored those in the United States. The US claim that, if not allowed to maintain the measure at issue, the United States would be "forced to be an unwilling partner in the extinction of sea turtles" was a dramatic overstatement. First, because of the conservation measures implemented in India, Pakistan and Thailand respectively, the risk of extinction had abated. Second, the United States had the option to work with other nations on additional measures that could be taken to conserve sea turtles without unilaterally imposing its own solutions to the problem. Third, it was curious that, if universal TEDs usage was the only means of protecting sea turtles from extinction, the United States did not approach the complainants about an agreement on this issue until November 1996, long after the embargo had been put in place, and, indeed, after they had notified the United States and the Members of their intention to bring this dispute to the WTO for resolution.

175. India, Pakistan and Thailand noted that the United States referred to, but did not quote in its entirety, the Preamble of the WTO Agreement which recognized the goal of "sustainable development ..., seeking both to protect and preserve the environment". However, the Preamble went on to state that efforts to preserve the environment were to be accomplished by each Member "in a manner consistent with their respective needs and concerns at different levels of economic development", and simply invoking environmental concerns did not guarantee "safe harbour" within the narrow exceptions contained in Article XX. The US measures were therefore inconsistent with the Preamble when that language was considered in its entirety. Specifically, the United States had failed to demonstrate that the environmental policies it was insisting that other countries should adopt as a condition of access to the US market were either necessary to ensure sustainable development or consistent with the respective needs and concerns of Members at different levels of economic development. Moreover, the Preamble did not, by itself, add to or subtract from the obligations of Members under the GATT 1994. As noted by the Appellate Body in the Gasoline case, "[t]he provisions of Article XX were not changed as a result of the Uruguay Round of Multilateral Trade Negotiations". Since the language of Articles XI, I, XIII, and XX did not change between the GATT 1947 and the GATT 1994, there was no basis to conclude that Members intended any different

(..continued)
provisions of Article XX were not changed as a result of the Uruguay Round of Multilateral Trade Negotiations ... WTO Members have a large measure of autonomy to determine their own policies on the environment (including its relationship with trade), their environmental objectives and the environmental legislation they enact and implement. So far as concerns the WTO, that autonomy is circumscribed only by the need to respect the requirements of the General Agreement and the other covered agreements.")

interpretation of those provisions than that found by previous panels in their interpretations of the GATT 1947.

176. India further agreed with the United States that the Panel was not called on to undertake a study of the most effective methods for sea turtle conservation. India requested the Panel to focus on the trade measures introduced by the United States, namely the import prohibition on certain shrimp and shrimp products from India.

177. Malaysia submitted that the United States gave only a partial citation of the Preamble to the WTO Agreement. The Preamble recognised that the rule of trade was to promote expansion of trade and production in a manner that respected the principle of sustainable development and protected and preserved the environment, but it also specified that such protection and preservation of the environment and the enhancement of the means to do so had to be done in a manner consistent with each Member's respective needs and concerns at different levels of economic development.

178. According to the United States, the issue was whether the US measures to conserve endangered sea turtles were consistent with WTO rules or, as the complainants claimed, whether those rules required the United States to participate in the extinction of sea turtles. But the complainants' arguments - such as their request that the Panel impo se a jurisdictional limitation on Article XX (see sub-section (b)(i)) - had much greater implication. If accepted, GATT 1994 would forbid WTO Members, both individually and collectively, from adopting trade measures needed to conserve the environment. The United States believed that such a severe limitation was not only inconsistent with the text of Article XX, but would be the exact wrong direction for the developing jurisprudence under the WTO, DSU and GATT 1994. The international community was increasingly aware of growing threats to the world environment. Moreover, the Preamble to the WTO explicitly provided that the rule of trade had to be applied in a manner that protected and preserved the environment. The far-reaching limitations to Members' rights suggested by the complainants did not even have support in the language of the Agreement. The GATT 1994, and in particular Article XX, could hardly be more clear in allowing Members to adopt trade measures to promote conservation goals. It was these rules, as written in the Agreement, that had to govern the resolution of this dispute, and not complainants' redrafting of these rules.

179. The United States did not agree with India, Pakistan and Thailand that the Preamble to the WTO Agreement should not be considered by the Panel. The United States noted that the complainants' premised their argument on the Appellate Body's statement in the Gasoline case that the "provisions of Article XX were not changed as a result of the Uruguay Round". However, the United States had never stated that Article XX had "changed". To the contrary, as shown by the plain text of the Agreement, the circumstances of the drafting of Article XX, and the subsequent practices of the contracting parties, Article XX had never included the jurisdictional limitation claimed by the complainants (see below the arguments made by the United States under sub-section (b)(i)). The United States further argued that India, Pakistan and Thailand misconstrued the statement of the Appellate Body in the Gasoline case. The Appellate Body, in its sentence immediately following the statement that Article XX "has not changed" proceeded to look at the Preamble as an aid in interpreting Article XX. The Panel should do the same here. Although Article XX did not "change" between the GATT 1947 and the GATT 1994, a Panel construing the GATT 1994 should look to the Preamble of the WTO Agreement as an aid to interpreting the GATT 1994. Indeed, under the principles of the Vienna Convention, the Preamble of a treaty was part of the "context" to be examined in interpreting the treaty's substantive provisions.

180. The United States noted that India, Malaysia, Pakistan and Thailand complained that the United States had not discussed the preambular language regarding sustainable development, nor the

language regarding the needs and concerns of Members at different levels of economic development. However, the United States had already addressed both these issues at length. Contrary to what was argued by India, Pakistan and Thailand, the Preamble did not indicate, when referring to sustainable development, that the United States had to demonstrate that the US measures were necessary to ensure sustainable development. Rather, the Preamble stated that international trade relations should "allow[] for the optimal use of the world's resources in accordance with the objective of sustainable development". The US measures were fully consistent with this objective: shrimp fishing practices which led to mass extinction of sea turtles were not consistent with the objective of sustainable development. Conversely, by not allowing its shrimp consumption to contribute to the endangerment of sea turtles, the US measures fostered the objective of sustainable development. Furthermore, the United States had also showed that its measures were consistent with the objective of respecting the "needs and concerns [of countries] at different levels of economic development". In particular, the United States had shown that TEDs were relatively inexpensive, could be fabricated from indigenous materials, and had been successfully adopted by many countries, including developing countries.

181. India, Pakistan and Thailand replied that in requesting the Panel to find an implied jurisdictional limitation in Article XX(b) and (g), they were not asking the Panel to legislate, but to interpret the language of Article XX in light of the understanding of its original drafters and the structure of the Agreement (see below the arguments made by India, Pakistan and Thailand under sub-section (b)(i)). Important, indeed overriding, objectives of the GATT would be undermined if one party was given the power, under the rubric of natural resource conservation, to dictate the environmental policies that had to be followed by other governments. The interpretation proposed by the complainants would, however, not prevent WTO Members from collectively adopting trade measures necessary to conserve the environment. As found in Tuna II, Members could agree among themselves to waive GATT rights and Members as a whole could, of course, amend the agreement. India, Pakistan and Thailand also noted they did not request the Panel to ignore the Preamble to the WTO Agreement, but they asked the Panel to consider that the Preamble did not, by itself, confer any rights or exemptions from GATT obligations and that the language of Article XX remained unchanged from the GATT 1947 to the GATT 1994. The complainants also requested that the Panel consider the Preamble in its entirety.

182. Malaysia replied that in Malaysia trawling for shrimp did not result in extinction of sea turtles and Malaysia had adequate conservation and protection measures with respect to sea turtles which were consistent with the concept of sustainable development, as recognised in the first preambular provision of the WTO Agreement. Malaysia further did not agree that the US measures were consistent with the objectives of respecting the "needs and concerns [of countries] at different levels of economic development". The principle of sustainable development in the WTO Preamble meant that each country had a right to determine its own level of development commensurate with its needs and concerns.

(b) Jurisdictional application of Article XX(b) and (g)

(i) Text of Article XX

183. India, Pakistan and Thailand argued that Article 3.2 of the DSU directed Panels to apply customary rules of interpretation of public international law when interpreting the provisions of the GATT. The rules of interpretation set forth in the Vienna Convention on the Law of Treaties ("Vienna Convention") constituted customary rules of interpretation of public international law within the meaning of Article 3.2 of the DSU. Article XX did not expressly limit its coverage to the humans, animals or plants located within the jurisdiction of the Member taking the measure. Nor did Article

XX(b) expressly permit a Member to take measures concerning humans, animals or plants located within the jurisdiction of another Member. The language of Article XX(b), when construed in accordance with its ordinary meaning, was ambiguous on this point. However, the terms of a treaty were not to be interpreted in a vacuum. Rather, pursuant to Article 31(c) of the Vienna Convention, "relevant rules of international law applicable in the relations between the parties" shall be taken into account together with the context of the terms. Rules of international law applicable in relations between the parties included Articles 1.2, 2.1 and 2.7 of the Charter of the United Nations, which recognized the sovereign equality of states and the principle of non -interference in the internal affairs of another state. In light of these general rules of international law, it should be presumed that Article XX(b) did not extend to measures taken by one Member that affected the life or health of the people, animals and plants within the jurisdiction of another Member, absent specific treaty language to the contrary. Regarding Article XX(g), India, Pakistan and Thailand further argued that the language of that provision was silent as to whether the exception covered only exhaustible natural resources located within the jurisdiction of the Member enacting the measure, or whether it extended to all natural resources, wherever located. However, as previously discussed, the terms of a treaty were not to be interpreted in a vacuum and the "relevant rules of international law applicable to the relations between the parties" had to be taken into account together with the context of the terms. In addition, Article 32 of the Vienna Convention stipulated that the drafting history of a provision could be resorted to in order to resolve the ambiguity.

184. Malaysia argued that Article XX had to be read with due consideration to the general principles of international law governing the issue of jurisdiction, as stipulated by Article 3.2 of the DSU which made it mandatory for the DSB to apply customary rules of interpretation of public international law.

185. The United States argued that the argument made by India, Pakistan and Thailand that a jurisdictional limit should be imposed on Articles XX(b) and XX(g) was entirely without merit, and should be rejected by the Panel. The United States noted first that the sea turtles protected and conserved by the US measures in fact did not fall exclusively within the complainants' respective jurisdiction. To the contrary, sea turtles were a shared global resource. They had ranges extending thousands of kilometres, and navigated through the coastal waters of many countries. If any one country in the range of a sea turtle population adopted practices resulting in high sea turtle mortality, the population would be endangered throughout its entire range. Thus, even if India, Pakistan and Thailand could support their proposal for a jurisdictional limitation on Article XX (and they could not) such a limitation would not apply to sea turtles, as their ranges extended throughout the high sea and waters under the jurisdiction of many nations, including the United States.

186. The United States further argued that Article XX paragraph (b) and (g) were not ambiguous with regard to their jurisdictional scope. Nothing in the language of these two paragraphs raised any question with regard to a possible limitation on the jurisdiction in which the animals or other natural resources were located. Contrary to what was asserted by India, Pakistan and Thailand, the absence of an explicit statement of inclusion did not create an ambiguity. For example, Article XX(b) also did not explicitly state that the animals could be found on the land or in water - but certainly no one would claim that Article XX(b) was "ambiguous" with regard to coverage of both terrestrial and aquatic animals because the language did not explicitly include them. In short, Articles XX(b) and XX(g) were clear on their face: they unambiguously applied to "animals" and "natural resources", without any limitation to the location of the animals or natural resources. In addition, the interpretation proposed by India, Pakistan and Thailand was not supported by past adopted panel reports. Nowhere in the U.S.-Canada Tuna, Herring and Salmon, or Gasoline decisions had the

panels first analysed whether the resource to be protected was outside the jurisdiction of the country taking the measure.[245]

187. The complainants' proposed jurisdictional argument was not supported by the Charter of the United Nations and the principles embodied therein concerning "the sovereign equality of States and the principle of non-interference in the internal affairs of another state". General sovereignty principles in the Charter of the United Nations did not address whether endangered species located in one country could be the subject of concern of another country. And, in fact, Malaysia stated in this case that "the concept of permanent sovereignty had not prevented international law from treating conservation issues within a state's territory as a question of common concern in which the international community possesses a legitimate interest" (see below paragraph 3.274). Moreover, CITES, to which each of the four complainants was a party, did explicitly address this issue. As noted above, CITES prohibited the trade in certain endangered species - including endangered species located in the jurisdictions of all other countries - even in countries not parties to CITES. Thus, under CITES, each of the complainants currently was obligated to take trade measures to conserve natural resources located in the jurisdiction of other countries. This showed that, contrary to what was argued by the complainants, there was no general principle of international law prohibiting countries from taking measures to conserve endangered species located in the jurisdiction of other countries. Further, the GATT itself refuted any argument that trade measures generally should not have effects on the internal affairs of exporting countries. For example, Article VI allowed for the imposition of countervailing duties in response to internal subsidies granted by exporting countries, and Article XX(e) provided that measures may be taken with regard to the products of prison labour. [246] Moreover, the Gasoline Panel had had no difficulty accepting that the United States, in its desire to conserve clean air pursuant to Article XX(g), was entitled to apply requirements that affected refineries located in Venezuela and owned by the Venezuelan State. [247]

188. The United States believed that India, Pakistan and Thailand also confused the extrajurisdictional application of a country's laws with the application by a country of its laws, within its own jurisdiction, in order to protect resources located outside its jurisdiction. In determining that shrimp was produced in a manner that undermined the conservation of sea turtles, the United States

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[245]Panel Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/R; Panel Report on Canada - Measures Affecting Exports of Unprocessed Herring and Salmon, adopted 22 March 1988, BISD 35S/98; Panel Report on United States - Prohibition of Imports of Tuna and Tuna Products from Canada, adopted 22 February 1982, BISD 29S/91.

[246]The United States noted that, as the Panel stated in Tuna II, measures "could in principle be taken under other paragraphs of Article XX and other Articles of the General Agreement with respect to things located, or actions occurring, outside the territorial jurisdiction of the party taking the measure. An example was the provision in Article XX(e) relating to the products of prison labour". Panel Report on United States - Restrictions on Imports of Tuna, circulated 16 June 1994, not adopted, DS29/R, paragraph 5.16.

[247]Panel Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/R, paragraph 3.14.

did not require any country to follow the US conservation policy nor did the United States undermine the sovereignty of other nations. Countries remained free to use any methods they considered appropriate in harvesting shrimp. However, if those countries chose harvesting methods that threatened sea turtles and that would undermine US conservation measures, those countries could not expect the United States to accept shrimp produced by those methods. This was no different than, for example, permitting WTO Members to refuse to support prison labour by prohibiting imports of products produced by prisoners.

189. India, Pakistan and Thailand responded that Article XX was silent on whether human, animals and plant or the natural resources could be protected or conserved by means of measures that would otherwise violate provisions of the GATT, included resources outside the jurisdiction of the party imposing the measure. However, this provision had to be interpreted in light of relevant rules of international law. The Charter of the United Nations was relevant to the interpretation of Article XX because it illustrated a fundamental rule of international law that individual nations had the sovereign right to regulate persons, animals or things within their jurisdiction. In light of this rule, it would be illogical to conclude the drafters of the GATT intended to permit contracting parties, under Article XX, to adopt trade measures for the purpose of coercing other contracting parties to modify their policies affecting human, animals, plants or natural resources within their jurisdiction (broadly defined), including within their territorial waters or exclusive economic zones.

190. India, Pakistan and Thailand considered that, contrary to what the United States claimed, CITES did not establish a rule of international law allowing states to impose trade measures to conserve natural resources located outside of their jurisdiction. The United States did not - and could not - show that CITES authorized an import embargo on a non-endangered species - shrimp - in order to protect or conserve an endangered species - sea turtles. Nor were the complainants "currently [is] obligated to take trade measures to conserve natural resources located in the jurisdiction of other countries". The only action that was in fact required or authorized under CITES was the prohibition of trade in, or possession of, certain endangered species themselves (Article VIII - Measures to be Taken by the Parties); i.e. CITES required that action be taken with respect to the importation, sale, handling or exportation of the endangered species itself once it came within the jurisdiction of the party. Therefore, CITES did not authorize the US action in this dispute nor did it illustrate why this Panel should find that the US action fell within one of the general exceptions to the GATT. CITES only demonstrated that for exceptions to these general principles of international law to be tolerated by the international community, there had to be international agreement.

191. The reference made by the United States to GATT provisions - Article VI and Article XX(e) - to suggest that all other provisions of Article XX should be interpreted to permit Members to take trade measures affecting the internal affairs of an exporting country was without merit. The imposition of countervailing duties under Article VI was a remedial measure expressly permitted in the GATT. The additional duty was intended to offset the effect of a subsidy on products imported into the Member imposing the measure; Article VI did not depend for its effectiveness on changes in the behaviour or policies of the exporting country. Under Article XX(e), a signatory might prohibit or otherwise regulate trade in products of prison labour. In this case, a very specific form of labour exploitation was targeted for special treatment in the GATT. The fact that these provisions were targeted at policies or practices outside of the jurisdiction of the country imposing the measure said nothing about the intended reach of Article XX(g) or (b). In fact, the presence of these very specific measures pointed to the opposite conclusion. When Members intended to allow a country to take actions which involved matters generally considered to be under the control of another country, the actions that could be taken were plainly described and the foreign policies or practices were highlighted. That was not the case here. (Indeed, to the extent that a goal of Article XX(e) was to protect the life and health of prisoners, the exception would be unnecessary if Article XX(b) were applicable to all measures taken to protect the life and health of people, animals and plants, regardless

of location.) Article XX(b) was intended to protect sanitary measures from GATT scrutiny and Article XX(g) was intended to permit Members to place limits on exports of finite, physical resources within their jurisdiction so as to reserve them for later domestic use.

192. India, Pakistan and Thailand submitted that the location of the resource to be protected had not been raised by the parties in any of the three disputes cited by the United States. In addition, the natural resource at issue in the Gasoline dispute was clean air in the United States, not in Venezuela. India, Pakistan and Thailand were of the view that the "policy concerns" raised by the Tuna I Panel Report were probative of the issues before this Panel. Contrary to what was suggested by the United States, India, Pakistan and Thailand were not issuing an invitation to the Panel to legislate, but were asking the Panel to interpret the words of the Agreement itself. In doing so, the Panel had to be mindful of the consequences of its interpretation on the core obligations protected by the GATT. If Article XX(g) was interpreted as proposed by the United States, there would be a serious erosion of GATT rights in which the exception swallowed the rule.

193. The United States replied that the US measures in no way violated the principle, found in the Charter of the United Nations or in other agreements, such as the UN Convention on the Law of the Sea, that nations had the sovereign right to regulate persons, animals, or things within their jurisdiction. The only "regulation" imposed by the US measures was on the importation of shrimp into the jurisdiction of the United States; the United States did not and could not impose its sea turtle conservation measures on persons within the jurisdiction of other countries. In fact, under general principles of sovereignty, nations had the right to regulate imports into their jurisdictions. The question here, which the United Nations Charter did not answer because it did not mention trade at all, was whether WTO Members had agreed to let products into their jurisdiction if to do so would contribute to grave environmental harm. The answer to this question was found in the WTO Agreement itself: Article XX provided that no other provision of the GATT might prevent a Member from adopting measures under Article XX(g).

194. The United States further argued the US measures were not taken pursuant to CITES. CITES involved trade in endangered species, their parts and their products. It neither authorized or prohibited the sea turtle conservation measures of the United States which were at issue in this dispute. However, the complainants were wrong when they characterized CITES as not allowing states to impose trade measures to conserve natural resources located outside their jurisdiction. CITES restricted trade not only in live endangered species, but also in dead specimens, as well as in "any readily recognizable part or derivative thereof" (Article I(b)). For example, CITES restricted trade in rhinoceros horn powder, as well as in live rhinoceroses. The exhaustible natural resource to be conserved - the living members of endangered species - did never need to enter the jurisdiction of a CITES member for the CITES trade restrictions to apply. In short, there was no way around the fact that complainants, as parties to CITES, were obligated to take trade measures to protect exhaustible natural resources located outside their jurisdiction. Thus, CITES conclusively rebutted the complainants' claim that "general international law principles" forbade measures having the purpose of conserving resources outside a nation's jurisdiction.

195. The United States addressed the policy concerns raised by the complainants in support of their argument on jurisdiction, in particular that without a jurisdictional limitation on Article XX(g), there would be a "serious erosion of GATT rights in which the exception would swallow the rule". The United States noted that it was not the role of Panels under the DSU to conduct a general policy review of the GATT. Nevertheless, the United States stressed three points regarding the complainants' arguments. First, by assuming the conclusion - i.e. that the US measure violated US obligations under the GATT - and then arguing that a ruling in favour of the United States would

further "erode" these obligations, the complainants were making a completely circular argument. The central question in this case was whether or not the GATT imposed on the United States the obligations claimed by the complainants. More specifically, the question was whether the United States had the obligation to accept imports of shrimp regardless of the resulting impact on the environment, or whether the United States had retained the right to limit such imports in furtherance of a bona fide conservation measure. Since the inception of the GATT, the United States, as well as many other nations, including the complainants under CITES, had continued to hold and to exercise the right, as preserved by Article XX, to regulate trade for the purpose of conserving exhaustible natural resources outside their jurisdiction. Second, the WTO Agreements did not provide for unfettered trade at all costs. Rather, the WTO Agreement, in both the Preamble and GATT Article XX, recognized that the rule of trade had to allow Members to pursue valid conservation goals. Third, the arguments that the Panel needed to impose a jurisdictional limitation on Article XX - despite an absence of textual support - in order to prevent abuses of Article XX exceptions was contrary to the reasoning of the Appellate Body in Gasoline. In that case, the Appellate Body explained that the very purpose of the Article XX chapeau was to prevent abuse of the Article XX exceptions by excluding measures applied in a discriminatory manner that would constitute arbitrary or unjustifiable discrimination, or disguised restrictions on trade. Finally, the complainants' argument that Article XX incorporated a jurisdictional limitation was contradicted by the position they had taken in the negotiation of the draft decision on Domestically Prohibited Goods (DPGs). [248] That draft decision, unequivocally supported by all the complainants, expressly provided that a country could ban exports of a product when necessary to protect the health of persons located in another country. Exports restrictions being generally prohibited under GATT Article XI, it would appear that the negotiators had relied implicitly on the applicability of Article XX to export restriction under the draft DPGs decision. In other words, the GATT consistency of the DPGs decision implicitly relied on the protection of persons located outside the country imposing the measure. Yet, neither complainants, nor any other country, ever raised an issue concerning the GATT consistency of the DPGs decision due to some sort of jurisdictional limitation on Article XX.

196. India, Pakistan and Thailand replied the US response to the complainants' policy concerns was just as circular. Notwithstanding the results reached by Tuna I and Tuna II, the United States assumed that it had always retained the right to hold its market hostage to changes in other Members' environmental measures and then asserted that there was therefore no erosion in GATT rights threatened by upholding this asserted "right". Second, the WTO Agreement did not permit unfettered resort to Article XX(g) to justify unilateral trade embargoes of non-endangered natural resources. Third, the Appellate Body never considered in Gasoline whether a measure of this type exceeded the implied jurisdictional limitation in Article XX(g) because the natural resource to be protected in that case was clean air in the United States, not in Venezuela. The reference made by the complainants to the Charter of the United Nations and the Law of the Sea intended to show that the United States did not have jurisdiction over the method of harvest of shrimp in the complainants' territorial waters or exclusive economic zones, or on the high seas where US nationals and vessels were not involved. The purpose was to demonstrate that, by enacting this measure, the United States was seeking to influence the regulation of persons or things over which it had no internationally recognized jurisdiction. More specifically, the principles embodied in the UN Charter were pertinent because they established that each nation was sovereign within its jurisdiction and that no nation had the right to interfere in the sovereign affairs of another state. This fundamental understanding, adopted in the United Nations Charter contemporaneously with the drafting of the GATT 1947, informed the drafters' conception of the scope of measures that could be taken under Article XX(g) to "conserve natural resources". The drafters would not have presumed to give one contracting party the power to

[248] Working Group on Exports of Domestically Prohibited Goods and Other Hazardous Substances, Report by the Chairman of the Working Group, L/6872, 2 July 1991.

insist that its preferred environmental strategies be adopted by all other contracting parties as a condition of exercising normal GATT rights to free trade in non-endangered species. The drafters' understanding on the scope of the exemption being given to individual contracting parties in 1947 could be given effect by this Panel by finding an implied jurisdictional limitation in Article XX(g).

197. While CITES required parties to take action to protect anima ls in other jurisdictions, the complainants conceded that parties could multilaterally agree to a derogation of GATT rights existing between them. However, in the absence of a multilateral agreement by all affected parties, attempts to regulate persons, things or activities taking place outside the legal jurisdiction of the party seeking to impose such regulation was inconsistent with international law. CITES required that action be taken with respect to the importation, sale, handling or exportation of the endangered species itself, once it came within the jurisdiction of the party. Moreover, CITES was a multilateral agreement evidencing broad consensus regarding appropriate measures that should be taken to protect and conserve endangered species. The measure at issue in this dispute, by contrast, sought to bar access to the US market for imports of a species that was not endangered - shrimp - and represented a unilateral determination of the appropriate means to conserve resources outside the jurisdiction of the United States. Article XX was not available to protect a GATT-inconsistent measure that affected trade in a non-endangered species, nor was it available to insulate from GATT liability measures taken to force other Members to change environmental policies within their sole discretion and control. The decision on Domestically Prohibited Goods, which had not yet been finalized, would have represented an agreement by all parties to the GATT, and therefore would have represented a subsequent modification to Article XI. Members could agree among themselves to derogations of GATT rights and all of the Members could amend the agreement.

198. India, Pakistan and Thailand concluded that if the unfettered right to ignore GATT obligations in the pursuit of an environmental objective were secured by Article XX, there would be no limit to the types of goods that could be embargoed in the name of environmental aims. It would not be necessary to limit one's measure to things that were harvested in the same net. Under its understanding of Article XX, the United States could freely choose to embargo computer chips if it thought that such an embargo would be more effective in securing action by the complainants to implement a TEDs programme in shrimp trawl fisheries. In other words, there was no necessary connection, under the US view of Article XX(g), between the article subject to the embargo and the conservation of an endangered species. The United States could even embargo imports of prepared foods in order to secure adoption of a favoured US timber conservation programme. By imposing an embargo on one product in order to achieve the conservation of another, the United States had broken the link between the measure and the thing to be conserved. If that link could be freely broken under Article XX, there was no limit to the types and kinds of GATT-inconsistent measures that could be maintained in the name of conservations. Abuse of the GATT system in the name of conservation could only be prevented by refusing to give "safe harbour" to unilateral trade measures that affected trade in resources whose conservation was not the object of the measure.

199. The United States stressed the limited purpose for examining general principles of international law in the resolution of this dispute. The Panel's terms of reference were to examine the complainants' claim in light of the obligations of the United States under the "relevant provisions of the covered agreements", in this case the provisions of GATT 1994. The relevant provisions of GATT 1994, in particular Article XX, did not incorporate general rules of international law. Thus, general rules of international law were only relevant in so far as they served as aids to interpreting the text of the GATT, pursuant to Article 31(3)(c) of the Vienna Convention. However, as already explained, Articles XX(g) and (b) were clear on their face. The text did not mention any limitations based on the jurisdiction in which the persons, animals or other natural resources to be conserved or

protected were located. In fact, the term "jurisdiction" was not even used in Article XX. In short, the complainants asked the Panel not to use rules of international law to interpret any particular language in Article XX, but rather asked the Panel to redraft Article XX by incorporating an entirely new limitation based on complainants' purported rules of international law.

200. Regarding CITES, the United States noted that the complainants acknowledged that CITES required parties to take action to protect animals in other jurisdictions. This aspects of CITES, to which the complainants are parties, disproved their theory that general rules of international law forbade countries from taking such action. Moreover, the complainants' response to this point - i.e. that parties could multilaterally agree to a derogation of GATT rights that existed between them - did not even address the point that the existence of CITES disproved their theory. Rather, the complainants' response regarding mutually agreed derogations was addressed to a different issue - the relationship between multilateral environmental agreements and a GATT Article XX rewritten to include the complainants' proposed jurisdictional limitation. Specifically, the complainants were responding to the point of the United States that under the complainants' proposed jurisdictional limitation, no multilateral environmental agreements calling for trade measures would be allowed under Article XX. The complainants failed to rebut this point. Trade measures under CITES, for instance, applied even to countries that were not parties to CITES, and thus to countries that had not agreed to any "derogations" of their rights under the GATT.

201. The complainants' response regarding the draft D PGs decision departed from historical facts. Pursuant to Article XXV:1 of the GATT 1947, the DPGs Working Group was meeting to "give effect to" provisions of the Agreement, with a view to "facilitating the operation and furthering the objectives of the Agreement". The DPG Working Group never proposed or considered any amendment to the GATT 1947, nor any derogations from GATT rights and obligations. The draft instrument prepared by the Working Party would have been a decision of the CONTRACTING PARTIES, not an amendment or waiver, and as such could not change or derogate from the GATT 1947. In short, the draft decision reflected the understanding of all delegations that measures for the protection of persons outside of a party's jurisdiction would be consistent with the GATT.

(ii) Drafting History of Article XX

202. India, Pakistan and Thailand argued that the preparatory work of Article XX(b) which, pursuant to Article 32 of the Vienna Convention could be consulted "... in order to confirm the meaning resulting from the application of Article 31 or to determine the meaning when the interpretation according to Article 31:(a) leaves the meaning ambiguous or obscure ...", also supported an interpretation whereby Article XX(b) could not be invoked to justify measures applying to animals outside the jurisdiction of the country enacting the measure. The drafting history of Article XX(b), revealed that the contracting parties' intent was to protect sanitary laws from GATT challenge. The drafting history confirmed therefore that it was the contracting parties' intent to insulate from GATT challenge only those measures designed to protect human, animal or plant life or health within the jurisdiction of the party taking the measure. The conclusion of the Tuna I Panel Report was fully supported by the drafting history.[249] Throughout the drafting process, several delegates had provided examples of the measures at issue. All of these examples involved sanitary measures to protect human, animal or plant life or health in an importing country from exposure to infected or pest -ridden imports.[250] Recourse to the supplementary means of interpretation therefore demonstrated that Article XX(b) was intended to apply only to measures necessary to protect the life and health of humans, animals or plants located within the jurisdiction of the Member enacting the measure.

203. This interpretation was further confirmed by US government publications released concurrently with the conclusion of the General Agreement in 1947 and with the adoption of amendments to the General Agreement in 1955. In Analysis of General Agreement on Tariffs and Trade, Department of State Publication 2983, Commercial Policy Series 109 (released November 1947), the following explanation of Article XX of the GATT was provided:

> "Article XX contains a number of exceptions which customarily appear in international commercial agreements, together with certain other exceptions growing out of the economic conditions peculiar to the transitional post -war period. Among the customary exceptions are those permitting the application of measures to protect human, animal or plant life or health (sanitary regulations); measures to protect public morals; measures relating to international movements of gold or silver; measures to enforce the customs laws and prevent deception or fraud; measures to conserve exhaustible natural resources, if made effective in conjunction with restrictions on domestic production or consumption; and measures applied under approved international governmental commodity agreements".[251]

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[249] India, Pakistan and Thailand referred the Panel Report on United States - Restrictions on Imports of Tuna, circulated 3 September 1991, not adopted, BISD 39S/155 paragraph 5.26.

[250] India, Pakistan and Thailand referred to E/PC/T/A/PV/25, p. 21 (during the Second Session of the Preparatory Committee, the Chairman of the commission drafting the exception discussed the level of proof necessary when "a country refuses to import a product in order to protect domestic animals, ..."); E/PC/T/A/PV/30, p. 8 (Chairman of Commission A of Second Session of the Preparatory Committee discussed level of proof necessary when "a country decides to restrict the importation of goods in order to protect its human, animal or plant life or health"); p. 11 (US delegate to Commission A noted that the safeguard taken at the time of importation to "protect yourself" from a disease such as bubonic plague was exclusion); and p. 13 (French delegate to Commission A discussed misuses which had been made in the past of "sanitary regulations" and the damages caused in this way to "exporting countries").

[251] India, Pakistan and Thailand also referred to The General Agreement on Tariffs and Trade (GATT), An Explanation of Its Provisions and the Proposed Amendments, Department of State Publication 5813, Commercial Policy Series 147 (Released April 1955), p. 16 ("Among the customary exceptions listed in Part I of this Article [Article XX] are measures to protect public morals or human, animal, and plant life (sanitary regulations)..."). (emphasis added)

204. Further, the drafting history of other provisions contained in the original text of the General Agreement confirmed that this exception applied only to sanitary regulations. Article XXII of the original text of the General Agreement provided as follows:

> "Each contracting party shall accord sympathetic consideration to, and shall afford adequate opportunity for consultation regarding, such representations as may be made by another contracting party with respect to the operation of customs regulations and formalities, anti-dumping and countervailing duties, quantitative and exchange regulations, subsidies, state-trading operations, sanitary laws and regulations for the protection of human, animal or plant life or health, and generally all matters affecting the operation of this Agreement". [252]

This language appeared in the original (30 October 1947) GATT Article XXII, as adopted by the CONTRACTING PARTIES. In 1955, Article XXII was amended to exclude the list of subjects to which the right of consultation applied. [253] However, this had been done in order to expand the scope of the provisions pursuant to which consultation could be requested, not to alter the meaning and scope of the particular exception provided by Article XX(b).

205. India, Pakistan and Thailand argued that there were compelling systemic considerations which supported this interpretation. As noted in the Tuna I Panel Report:

> "Article XX(b) allows each contracting party to set its human, animal or plant life or health standards. .... The Panel recalled the finding of a previous panel that this paragraph of Article XX was intended to allow contracting parties to impose trade restrictive measures inconsistent with the General Agreement to pursue overriding public policy goals to the extent that such inconsistencies were unavoidable. The Panel considered that if the broad interpretation of Article XX(b) suggested by the United States were accepted, each contracting party could unilaterally determine the life or health protection policies from which other contracting parties could not deviate without jeopardizing their rights under the General Agreement. The General Agreement would then no longer constitute a multilateral framework for trade among all contracting parties but would provide legal security only in respect of trade between a limited number of contracting parties with identical internal regulations". [254]

206. These same systemic concerns were echoed in a 1992 report on trade and the environment issued by the GATT Secretariat. The report noted that a country had a right, consistent with GATT rules, "to protect its own environment against damage from either domestic production or the consumption of domestically produced or imported products". [255] However, the report further opined that:

> "[w]hen the environmental problem is due to production or consumption activities in another country, the GATT rules are more of a constraint, since they prohibit making market access dependent on changes in the domestic policies or practices of the exporting country. The rationale for this is that to do otherwise would invite a flood of import restrictions as countries

[252] GATT, (1995), Analytical Index: Guide to GATT Law and Practice, Vol. 2, p. 621 (emphasis added).

[253] Ibid.

[254] Panel Report on United States - Restrictions on Imports of Tuna, circulated 3 September 1991, not adopted, BISD 39S/155, paragraph 5.27 (citing Panel Report on Thailand - Restrictions on Importation of and Internal Taxes on Cigarettes, adopted 7 November 1990, BISD 37S/200, 222-223, paragraphs 73-74).

[255] GATT, (1992), International Trade 1990 -91, Vol. 1, p. 23.

> (especially those with large markets) either attempted to impose their own environmental, economic and social policies on other countries, or use such an attempt as a pretext for reducing competition from imports". [256]

After noting that GATT rules could not be used to block the adoption of environmental policies which had broad support in the world community because the GATT contracting parties could either amend the rules or grant a waiver, the report noted that the real danger was the use of unilateral trade measures: "If the door were open to use trade policies unilaterally to offset the competitiveness effects of different environmental standards, or to attempt to force other countries to adopt domestically-favoured practices and policies, the trading system would start down a very slippery slope".[257] To avoid this threat, the exception contained in Article XX(b) should not be read to permit measures taken by one Member which affected the life or health of animals located within the jurisdiction of another Member.

207. Regarding Article XX(g), India, Pakistan and Thailand argued that the drafting history also supported that fact that this provision did not apply to natural resources located beyond the jurisdiction of the contracting parties enacting the measures. A review of the drafting history of the ITO Charter demonstrated that the purpose of Article XX(g) was to allow a contracting party to impose limits on the exportation of scarce natural resources located within its jurisdiction. For example, during discussion of the draft Charter provision containing the same exception set forth in Article XX(g), the following discussion occurred:

> "Mr. Johnsen (New Zealand) pointed out in reference to [Article XX(g)] that it would not be advisable to differentiate between natural and manufactured products that were exhaustible. A country might have valid reason for desiring to curtail the exportation of manufactured products in short supply ... but he felt that it should be specifically laid down that no Member country should be compelled to export both manufactured and natural products which it wished to conserve for domestic purposes. It was obvious that no country would restrict its export trade except for valid reasons. He therefore proposed to amend the wording of [Article XX(g)] ... to read: "relating to the conservation of exhaustible natural or other resources ..."
>
> "Mr. Ganguli (India) ... He proposed deletion of [Article XX(g)]. He felt that his country might have to conserve for domestic use its exhaustible and scarce resources, even if such a measure was not "pursuant to international agreements", [a phrase originally included within the Charter article which became Article XX(g), but which was subsequently deleted] or was not "made effective in conjunction with restrictions on domestic production or consumption".[258]

During a subsequent discussion, the Brazilian delegation suggested that "export restrictions should be permitted for the preservation of scarce natural resources even if there is no restriction on domestic

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[256] Ibid., p. 22.

[257] Ibid.

[258] E/PC/T/C.II/50, p. 4-5 (emphasis added).

consumption ...".[259] The drafting history therefore supported the interpretation that Article XX(g) applied only to natural resources located within the jurisdiction of the Member applying the measure.

208. The decision of the Tuna II Panel that Article XX(g) could be applied to measures relating to resources located outside of the jurisdiction taking the measure was not instructive because it failed to take this drafting history into account. Further, in reaching its decision, the Tuna II Panel also relied, in part, on the fact that "two previous panels have considered Article XX(g) to be applicable to policies related to migratory species of fish, and made no distinction between fish caught within or outside the territorial jurisdiction of the contracting party that had invoked the provision".[260] However, the Tuna II Panel's reliance on the two prior Panel decisions was misplaced because this precise question was never directly addressed by either of the panels referred to.[261]

209. Moreover, there were compelling systemic considerations which supported this interpretation. As noted in the Tuna I Panel Report:

> "[A]rticle XX(g) allows each contracting party to adopt its own conservatio n policies. The conditions set out in Article XX(g) which limit resort to this exception, namely that the measures taken must be related to the conservation of exhaustible natural resources, and that they not "constitute a means of arbitrary or unjustifiable discrimination ... or a disguised restriction on international trade" refer to the trade measure requiring justification under Article XX(g), not, however, to the conservation policies adopted by the contracting party. The Panel considered that if the extrajurisdictional interpretation of Article XX(g) suggested by the United States were accepted, each contracting party could unilaterally determine the conservation policies from which other contracting parties could not deviate without jeopardizing their rights under the General Agreement. The consideration that led the panel to reject an extrajurisdictional application of Article XX(b) therefore apply also to Article XX(g)".[262]

These same systemic concerns were echoed in the 1992 report on trade and the environment issued by the GATT Secretariat, referred to above in paragraph 180. In light of these concerns, Article XX(g) should be interpreted to apply only to measures relating to the conservation of exhaustible natural resources located within the jurisdiction of the party enacting the measure.

210. The United States argued that, since the language of Article XX(b) and Article XX(g) was not ambiguous with respect to the jurisdictional scope, there was no need to resort to Article 32 of the Vienna Convention as a supplementary means of interpretation to see that there was no mention of, let alone differentiation based upon, the location of the animal whose life or health was protected, or of the natural resource to be conserved. Nonetheless, if the Panel did examine the historical record concerning the language in Article XX(b) and Article XX(g), that record did not support the argument for imposition of a jurisdictional limitation. India, Pakistan and Thailand relied for their claim on, and

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[259] E/PC/T/C.II/QR/PV/5, p. 79 (emphasis added). India, Pakistan and Thailand also referred to E/PC/T/A/PV/25, p. 29 (Indian delegate to the Second Session in Geneva noted that the easiest and most effective way to conserve a mineral for beneficial and planned later use was through limiting exports); E/PC/T/A/PV/30, p. 6 (Australian delegate discussed imposition of export quotas or prohibitions).

[260] Panel Report on United States - Restrictions on Imports of Tuna, circulated 16 June 1994, not adopted, DS29/R, paragraph 5.15.

[261] Panel Report on Canada - Measures Affecting the Exports of Unprocessed Herring and Salmon, adopted 22 March 1988, BISD 35S/98; Panel Report on United States - Prohibition of Imports of Tuna and Tuna Products from Canada, adopted 22 February 1982, BISD 29S/91.

[262] Panel Report on United States - Restrictions on Imports of Tuna, circulated 3 September 1991, not adopted, BISD 39S/155, paragraph 5.32.

adopted wholesale, the reasoning of the unadopted Tuna I panel report, which found that Article XX(b) and Article XX(g) did not allow measures to protect animal life or health outside the jurisdiction of the country taking the measure. However, that finding of the Tuna I panel was without solid support in the text or the drafting history and that panel had not thoroughly analyzed contemporaneous and subsequent practice regarding legitimate exceptions to prohibitions on quantitative restrictions. Moreover, India, Pakistan and Thailand failed to note that the Tuna II panel flatly rejected the finding of the Tuna I panel that a jurisdictional limit should be read into Articles XX(b) and XX(g).[263]

211. With regard to the drafting history of Article XX(b), the United States argued that the arguments made by India, Pakistan and Thailand proceeded from just one small part of the history, reached faulty conclusions even in the context of that one small part, and disregarded the remainder of that history. Contrary to what was asserted by the three complainants, the proposal for Article XX(b) did not date from the Draft Charter of the International Trade Organization (ITO) proposed by the United States, but had a much longer and richer heritage that contradicted the reading of that provision as proposed by India, Pakistan and Thailand. The complainants' reading of the drafting history of Article XX(b) was narrow and fragmentary, and even this narrow treatment of only one part of the historical record contained a number of leaps of logic. The fact that Article 37(b) of the New York Draft of the ITO Charter referred to "corresponding domestic safeguards under similar conditions exist[ing] in the importing country" did not itself indicate that the measures under that Article were only those to safeguard life or health of humans, animals or plants within the jurisdiction of the importing state. In fact, the opposite inference could be drawn: this language would have required a country to put equivalent domestic safeguards in place when it applied measures to protect resources outside its jurisdiction. The sources referred to by India, Pakistan and Thailand) merely indicated that Article XX included sanitary regulations, but in no way did they indicate any limita tion. Further, as discussed below, the history of Article XX(b) covered far more than just sanitary regulations. Similarly, the 1947 version of Article XXII (Consultations) of the GATT, subsequent to its amendment in 1955, did include a reference to sanitary laws and regulations, but, contrary to what was asserted by the three complainants did not even refer to Article XX, and in no way indicated that Article XX(b) was limited to sanitary regulations. The history thus indicated that Article XX(b) was broader in scope than just sanitary measures.[264] In fact, there was little doubt that Article XX(b)

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[263]Panel Report on United States - Restrictions on Imports of Tuna, circulated 3 September 1991, DS21/R; Panel Report on United States - Restrictions on Imports of Tuna, circulated 16 June 1994, not adopted, DS29/R. The United States noted that in Tuna II, it was argued that "Article XX(b) could not justify measures taken to protect living things located outside the territorial jurisdiction of the party taking the measure." In rejecting this argument, the Panel explained as follows (paragraphs 5.31 and 5.32).

> "The Panel recalled its reasoning under Article XX(g). It observed that the text of Article XX(b) does not spell out any limitation on the location of the living things to be protected. It noted that the conditions set out in the text of Article XX (b) and the Preamble qualify only the trade measure requiring justification ("necessary to") or the manner in which the trade measure is applied ("arbitrary or unjustifiable discrimination", "disguised restriction on international trade"). The nature and precise scope of the policy area named in the Article, the protection of living things, is not specified in the text of the Article, in particular with respect to the location of the living things to be protected.
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> "The Panel further recalled its observation that elsewhere in the General Agreement measures according different treatment to products of different origins could in principle be taken with respect to things located, or actions occurring, outside the territorial jurisdiction of the party taking the measure. It could not therefore be said that the General Agreement proscribed in an absolute manner such measures".

[264]The United States noted that, at Havana, the Third Committee stated concerning the corresponding provision in the Charter: "[t]he Committee agreed that quarantine and other sanitary regulations are a subject to which the Organization should give careful attention with a view to preventing measures "necessary to protect human, animal or plant life or health" from being applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade and to advising Members how they can maintain such measures without causing such prejudice". The fact that quarantine and other sanitary regulations were singled out for careful attention under this provision indicated that the provision was intended to cover more than sanitary measures.

covered such measures as those prohibiting the importation of weapons. [265] These were not sanitary measures. Accordingly, it was wrong to conclude that Article XX(b) was limited to sanitary measures, let alone that it was limited to sanitary measures to safeguard life or health of humans, animals or plants within the jurisdiction of the importing state. Furthermore, it did not follow that "focusing" on a particular set of measures was equivalent to concluding that a provision was exclusive of other measures.

212. The United States further argued that the historical analysis of India, Pakistan and Thailand was not only illogical, it was also based on an incomplete history of the provision. As one commentator stated:

> "[D]rawing a conclusion from the ITO deliberations alone would neglect the historical background that so clearly shaped Article XX(b). The reason why there was no comprehensive debate on the scope of this exception at the U.N. Conference is that the debate had already taken place — twenty years earlier. Since the exception in the ITO Charter was equivalent to what the 1927 Convention [for the Abolition of Import and Export Restrictions] and many bilateral treaties had, there would be little point in rehashing the obvious". [266]

213. The language in Article XX(b) had not been newly invented for the ITO Charter, but rather was standard language in trade agreements. The 1927 Convention for the Abolition of Import and Export Prohibitions and Restrictions ("1927 Prohibitions Convention") required that the parties thereto eliminate all quantitative restrictions, but permitted them to retain certain enumerated types of quantitative restrictions taken for non-protectionist purposes. The list of permitted legitimate restrictions, in Article 4 of the 1927 Prohibitions Convention, provided for restrictions to protect animal and plant life or health; the exception in question was phrased in language nearly identical to that later used for Article XX(b). It was clear that this exception permitted the protection of life or health of plants and animals outside the jurisdiction of the contracting party maintaining the measures. The language adopted in the ITO Charter was first debated in the discussions regarding Article 4 of the 1927 Prohibitions Convention. [267] The same language adopted in that Convention was then used in many subsequent bilateral agreements.

214. The 1927 Prohibitions Convention was considered to be the first multilateral trade agreement. Article 4 of the 1927 Prohibitions Convention stated, in relevant part:

> "The following classes of prohibitions and restrictions are not prohibited by the present Convention, on condition, however, that they are not applied in such a manner as to constitute a means of arbitrary discrimination between foreign countries where the same conditions prevail, or a disguised restriction on international trade:

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[265] Measures restricting the importation of dangerous weapons were notified to the GATT since at least 1950. (GATT/CP/93/Add.1, "Quantitative Import and Export Restrictions Addendum: Note by the Executive Secretary on the statements submitted by contracting parties in response to GATT/CP/93"). In the negotiations on the draft text regarding sanitary and phytosanitary measures in the Uruguay Round governments recognized that Article XX(b) covered more than just sanitary and phytosanitary measures.

[266] S. Charnovitz, (1991), Exploring the Environmental Exceptions in GATT Article XX, Journal of World Trade, Vol. 25, No. 5, p. 37, 44.

[267] 97 L.N.T.S. 393.

(4) Prohibitions or restrictions imposed for the protection of public health or for the protection of animals or plants against disease, insects and harmful parasites".[268]

The scope of Article 4(4) was clarified by the drafters of the Prohibitions Convention in an accompanying Protocol. This Protocol stated that "[t]he protection of animals and plants against disease also refers to measures taken to preserve them from degeneration or extinction and to measures taken against harmful seeds, plants, parasites and animals". [269] All nations that signed the Convention also signed the Protocol. Furthermore, the Draft Convention made separate reference to public health and the protection of plants and animals:

"The following classes of prohibi tions and restrictions are not prohibited ... :

2. Prohibitions or restrictions on the grounds of public health;

3. Prohibitions and restrictions having in view the protection of animals and plants against disease, degeneration and extinction". [270]

215. Thus, the language used in the 1927 Prohibitions Convention (virtually identical in key respects to the language used in the ITO Charter and in GATT Article XX(b)) included protection against extinction, and thus was not limited to purely domestic concerns or to sanitary measures alone. This interpretation of the Prohibitions Convention was bolstered by the drafters' perceptions of the provision and by practice at the time. The United States had numerous environmental statutes in effect at the time of drafting, none of which was challenged during treaty negotiations. [271]

216. The United States further submitted that many of the national conservation laws in force at the time of the Prohibitions Convention contained import and export restrictions for solely conservation purposes. For example, the Alaska Fisheries Act, as amended in 1926 [272], prohibited domestic salmon fishing in certain waters and during certain times of the year for the preservation of salmon stocks. It also prohibited the importation of "salmon from waters outside the jurisdiction of the United States taken during any closed period provided for by this Act". The Lacey Act of 1900 prohibited the importation of wild animals and birds without a special permit. [273] Other laws included

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[268] 97 U.N.T.S. p. 405.

[269] Ibid., Section III(a).

[270] Preliminary Draft Agreement Established by the Economic Committee.

[271] The United States noted that it was the understanding of the US delegation that these existing statutes were not abrogated by the provisions of the Abolition Convention. Shortly before the United States signed the Convention, a representative of the United States Tariff Commission informed the US negotiator that:

> "The import prohibitions and restrictions now in force in the United States are entirely, as was frequently made clear in the course of the debates, of a non-economic nature. They consist of measures for the protection of public health and public morals, for safeguarding plants and animals against disease and extinction, and of measures which are intended to apply to imports and exports the same control as is applied to corresponding commodities in domestic trade.
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> "Our right to maintain these prohibitions and restrictions would in no way be affected by our signing the Convention. We have abundant evidence, both in the debates in plenary sessions and in committees, that the right of any country to maintain such measures of control would not be infringed".

[272] Act for the Protection of the Fisheries of Alaska, sec. 1, 69 Cong. 1st sess., ch. 621, p. 752.

[273] 31 Stat. 187-88 (1900)(56th Cong. Sess. 1, ch. 553).

the Underwood Tariff of 1913, prohibiting the importation of certain feathers and plumes of wild birds. In addition to these national laws, there were also several multilateral treaties for purposes of conservation in existence at the time of the Abolition Convention. Two such treaties included a 1911 Convention for Preservation and Protection of Fur Seals and a 1916 Convention for the Protection of Migratory Birds. Both of these treaties contained trade restrictions.

217. During the period between the 1927 Prohibitions Convention and the negotiation of the ITO Charter and the GATT, governments used varying formulas in providing for exemptions for conservation and sanitary measures. For example, the 1927 Prohibitions Convention exempted "prohibitions or restrictions imposed for the protection" of plant and animal life or health. [274] Some bilateral trade treaties to which the United States was a party exempted prohibitions or restrictions "imposed for protection of" plant and animal life or health, while others exempted prohibitions or restrictions "designed to protect" plant and animal life and health. [275] Bilateral commercial treaties between other countries contained similar language. A commercial agreement between Australia and the Belgo-Luxemburg Economic Union exempted all prohibitions or restrictions "imposed for the protection of animals and plants". [276] A commercial convention between Estonia and France allowed for "import and export prohibitions to the following cases: war time measures, measures imposed for reasons of health or public security, the protection of animals or plants...". [277] The British government, in an exchange of notes with Brazil constituting a temporary agreement regarding commercial relations, exempted "prohibitions or restrictions upon imports into the United Kingdom for the purpose of protecting animals and plants (that is to say, protection against disease, degeneration or extinction, as well as measures taken against harmful seeds, plants and animals)". [278] The existence of these laws and agreements at the time of the drafting of the Prohibitions Convention demonstrated that Article 4(4) indeed was intended to encompass measures that protected both domestic and non-domestic animal and plant life and health.

218. The United States argued that the practice of governments since the entry into force of the GATT 1947 further supported that Articles XX(g) and (b) were not subject to a jurisdictional limit. Treaties that protected plants and animals outside the territory of the parties existed in 1947, and more were agreed afterward. These treaties included both sanitary measures and conservation measures, and provided for trade restrictions and measures which protected the environment beyond the territories of the parties thereto. At no time were these treaties challenged as being inconsistent with the GATT because they protected plants and animals extraterritorially, or because they imposed trade

[274] International Convention for the Abolition of Import and Export Prohibitions and Restrictions, 97 L.N.T.S. 393 (signed 8 November 1927).

[275] The United States mentioned, inter alia, the Trade Agreement Between the United States and Canada, Article XII(2)(b), 199 L.N.T.S. 92 (1940), ("designed to protect" life and health) (signed on 17 November 1938, ratifications exchanged 19 June 1939); Trade Agreement Between the U.S. and the U.K., 200 L.N.T.S. 294 (1940) ("imposed for protection" of life and health) (signed on 17 November 1938, ratifications exchanged 24 November 1939); Commercial Agreement Between the U.S. and Republic of Nicaragua, Article VI(2)(a)(3), 1936 L.N.T.S. 142 ("designed to protect" life) (signed 11 March 1936, entered into force 1 October 1936); Commercial Agreement Between the United States and Switzerland, 1936 L.N.T.S. 232 ("designed to protect" life or health) (signed 9 January 1936, ratifications exchanged 7 May 1936).

[276] Provisional Commercial Agreement Between the Commonwealth of Australia and the Belgo-Luxemburg Economic Union, Article VII, 1937 L.N.T.S. 272 (signed 3 October 1936, entered into force 1 January 1937).

[277] Commercial Convention Between Estonia and France, Article 6, 1937 L.N.T.S. 43 (signed 16 October 1937, entered into force 1 December 1937).

[278] Exchange of Notes Between the Brazilian Government and His Majesty's Government in the United Kingdom Constituting a Temporary Agreement Regarding Commercial Relations Between the Two Countries, 1936 L.N.T.S. 274, 277 (signed 10 August 1936, entered into force 10 August 1936).

restrictions for non-economic reasons. For example, the Convention Relative to the Preservation of Fauna and Flora in their Natural State provided that "the import of trophies which have been exported from any territory to which the present Convention is applicable in full, whether a territory of another Contracting Government or not, shall be prohibited". [279] Similarly, the Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere stated that "[e]ach Contracting Government shall take the necessary measures to control and regulate the importation, exportation and transit of protected fauna and flora or any part thereof". [280] The International Convention for the Protection of Birds prohibited "the import, export, transport, sale, offer for sale ... of any live or dead bird or any part of a bird killed or captured in contravention of the provisions of the Convention". [281] The Agreement on Conservation of Polar Bears stated that "[a] Contracting Party shall prohibit the exportation from, the importation and delivery into, and traffic within, its territory of polar bears or any part or product thereof taken in violation of this agreement". [282] The Convention on Conservation of North Pacific Fur Seals required that each party "prohibit the importation and delivery into and the traffic within its territories of skins of fur seals taken in the area of the North Pacific Ocean mentioned in Article III [which includes the high seas] ...". [283] The Convention on the Prohibition of Fishing with Long Drift Nets in the South Pacific, which allowed each party to "prohibit the landing of driftnet catches within its territory ..., prohibit the importation of any fish or fish product, whether processed or not, which was caught using a driftnet". [284]

219. The United States added that the practice of governments in this area continued today. In recent years, nations had negotiated a number of multilateral treaties for the purpose of protecting the environment and conserving living and natural resources. [285] Most of these treaties had extraterritorial ramifications for the nations party to the treaties, and many of the treaties included trade measures. In drafting these treaties, governments had been cognizant of the requirements of the GATT and had perceived that Article XX would permit them to implement the trade measures. [286] The Montreal

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[279] Article 9(3). Article 9(1) of the Convention stated that: "[e]ach Contracting Government shall take the necessary measures to control and regulate in each of its territories the internal, and the export and export, traffic in ... trophies ... with a view to preventing the import or export of, or any dealing in trophies other than [in accordance with the laws of the territory]". Animals protected under the treaty included "all vertebrates and invertebrates ... their nests, eggs, egg-shells, skins and plumage". This included highly migratory species. Ibid., Article 2(3). Adopted 8 November 1933, entered into force 14 January 1936. Parties included Belgium, Egypt, India, Italy, Portugal, South Africa, Sudan, United Kingdom and United Republic of Tanzania.

[280] Article IX ("fauna and flora" included migratory species). Adopted 12 October 1940, entered into force 30 April 1942. Parties included: Argentina, Brazil, Chile, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Mexico, Nicaragua, Panama, Peru, Trinidad and Tobago, the United States, Uruguay, and Venezuela.

[281] Article 3. Adopted 18 October 1950, entered into force 17 January 1963. Parties included Belgium, Iceland, Italy, Luxembourg, Netherlands, Spain, Sweden, Switzerland, Turkey and Yugoslavia.

[282] Article V. Adopted 15 November 1973, entered into force 26 May 1976. Parties, limited to signatories, included Canada, Denmark, Germany, Norway, USSR (current status unknown), USA.

[283] Article VIII. Adopted 7 May 1976, entered into force 10 December 1976. Parties, limited to signatories, include Canada, Japan, USSR (current status unknown), USA.

[284] Article 4(2). Adopted 23 November 1989.

[285] The United States referred in particular to the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer; the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal; the London Guidelines for the Exchange of Information on Chemicals in International Trade; Convention on International Trade in Endangered Species of Wild Fauna and Flora; the Framework Convention on Biological Diversity.

[286] The United States referred to the Report of the Fifth Meeting of the Open Ended Working Group of the Parties to the Montreal Protocol, paragraph 14, U.N. Doc. UNEP/OzL.Pro/WG.1/5/3 (1990): "[t]he Working Group concluded that there appeared to be no conflict between

Protocol on Substances that Deplete the Ozone Layer provided one example of nations seeking to protect life and health of humans, animals and plants without regard to their location. [287] The Montreal Protocol required, inter alia, that countries restrict production and consumption of ozone-depleting substances and implement trade restrictions against countries that did not institute such a restriction. There was no specific reference to, and no distinction within, the Protocol for protection of life or health within a country's jurisdiction and protection of life or health outside the country's jurisdiction. As noted above, CITES imposed trade restrictions for the purpose of conserving endangered species, regardless of where those species were located. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal prohibited the import and export of hazardous waste to ensure the environmentally sound disposal of that waste. In 1995, at the third Conference of Parties to the Basel Convention, an amendment to the Convention was adopted, with the support of the complainants, to ban trade in hazardous wastes between developed and developing countries. This ban extended, inter alia, to exports of valuable recyclable wastes from developed country parties to developing countries that were not parties to the agreement.

220. The United States was therefore of the view that, as could be seen from the actions engaged in by governments, there had been a long-standing practice, continuing through today, of contracting parties maintaining measures to protect and conserve animal and plant life and health outside their jurisdiction. There had never been a historical distinction between the protection of domestic plants and animals and non-domestic plants and animals. Rather, the obligation of a contracting party had been to ensure that the burden imposed by any such measure was placed equitably on domestic and foreign products. The territorial limitation called for by India, Pakistan and Thailand regarding the scope of Article XX would call into question a broad range of agreements entered into by governments. If India, Pakistan and Thailand sought such a limitation, it should negotiate with other governments, not request the Panel to legislate such a limitation and proclaim that it had lain hidden within the GATT for decades. This analysis indicated that, in order to accommodate multilateral treaties relating to the environment, nations had interpreted Article XX to allow for global -territorial and extraterritorial- protection of life and health.

221. Regarding the drafting history of Article XX(g), the United States noted that the only examples of drafting history cited by India, Pakistan and Thailand were statements by three delegations indicating that export restrictions should be included within the scope of measures covered by Article XX(g). Nothing in these examples indicated that Article XX(g) measures should be limited to measures involving the export of natural resources within a country's jurisdiction. In fact, the text of Article XX showed that when the drafters intended to limit Article XX exceptions so that only export restrictions would be permitted thereunder, they did so explicitly. Article XX(i) covered measures necessary to ensure adequate supplies of domestic materials during periods when a stabilization plan was in effect, and Article XX(i) was explicitly limited to restrictions "on exports". Article XX(g) contained no similar limitation, and India, Pakistan and Thailand provided no rationale for reading such a limitation into the text of the GATT.

222. The United States submitted that the argument made by India, Pakistan and Thailand to request this Panel to construct a jurisdictional limitation to Articles XX(b) and XX(g) [288] because if

(..continued)
GATT rules and Article 4 ... and other articles of the Montreal Protocol. The Working Group further concluded that no specific conflict between GATT rules and Article 4 ... could be identified".

[287] Adopted 16 September 1987, entered into force 1 January 1989. The United States noted that more than 75 countries were party to the Montreal Protocol.

[288] The United States noted that the complainants did not address whether their argument would also apply to all of Article XX, for example Article XX(e) relating to products of prison labour. If not, then it was unclear how other provisions could be distinguished.

there would be no jurisdictional limitation, "... each contracting party could unilaterally determine the international life and health protection policies from which other contracting parties could not deviate without jeopardizing their rights under the General Agreement" amounted to urging the Panel to legislate and to requesting for a policy review of the GATT 1994. Nowhere did the complainants demonstrate that the drafters of the GATT had these particular policy concerns in mind, either in the drafting history or the text of the GATT. As demonstrated above, the GATT was drafted to permit countries to take action to protect animal and plant health both within and outside their borders. The three complainants' arguments amounted to a post hoc "bootstrap" for an erroneous proposition. Their concern was that additional conditions were needed on Article XX(b) and XX(g) to protect them from their spectre of "unilateralism". Additional conditions to deal with policy concerns were the province of negotiations, not panel proceedings. The complainants did not explain how these conditions were to suddenly appear in the GATT 1994 as a result of this proceeding.

223. The United States further argued that the rationale of India, Pakistan and Thailand was circular in nature. They argued that without a jurisdictional limitation, the "rights" of other Members under the GATT 1994 would be jeopardized. This reasoning, however, assumed that those "rights" of other Members were such as to be infringed in the absence of a jurisdictional limitation, and then deduced that a jurisdictional limitation was needed in order to ensure that the rights were not infringed. This became an interesting exercise in tautology, but hardly shed any light on Article XX. Instead, the interpretation proposed by India, Pakistan and Thailand would attempt to dictate to importing contracting parties that their markets must be available as an incentive for the destruction of exhaustible natural resources. Contracting parties over the years since the inception of the GATT had adopted and enforced a number of measures, both required by their obligations under other international agreements and not so required, to protect the environment. There had been no questioning of the ability of these parties to adopt these measures consistent with their obligations under the GATT, since Article XX provided for them. However, the interpretation of Article XX proposed by the complainants would mean that suddenly a broad range of legitimate environmental protection measures would be thrown into question under the GATT 1994. The practices of the contracting parties before and after the GATT 1947 demonstrated that there was no perceived limitation under the GATT on the ability of contracting parties to take these trade measures for conservation and plant and animal protection purposes. It did not make sense to suggest that the GATT 1994 now should be interpreted to create difficulties for these measures. A Panel should hesitate before accepting an interpretation of the GATT that would have such broad-ranging implications for a large number of important measures maintained by contracting parties - including those pursuant to other international obligations - particularly where that interpretation was unsupported by the plain language of the Agreement.

224. India, Pakistan and Thailand maintained that the drafting history of Article XX(g) supported the inference of a jurisdictional limitation, and rejected the US assertion that the language of Article XX(g) was ambiguous on its face regarding the presence or absence of a jurisdictional limitation. As an initial matter, the complainants noted that Tuna I had concluded there was a jurisdictional limitation inherent in Article XX(g). That panel must have concluded therefore either that the language was ambiguous in this respect or that the language was unambiguous but nevertheless supported a jurisdictional limitation. Moreover, using a primary means of treaty interpretation (i.e., relevant rules of international law applicable in relations between the parties), India, Pakistan and Thailand had demonstrated that the best interpretation of Article XX(g) was that it did not apply to measures taken to coerce other nations to adopt policies to conserve natural resources under their jurisdiction. To the extent that this interpretation was or could be in conflict with other possible interpretations of the language of Article XX(g), resort to the drafting history was appropriate. That history confirmed the interpretation defended by the three complainants.

225. The US attempts to minimize the impact of the drafting history by suggesting that India, Pakistan and Thailand quoted selectively from the history was unavailing. The US had not, and could not, point to any drafting history to show that the negotiators intended to include import restrictions within the scope of Article XX(g). Rather, the history clearly showed that the negotiators thought of Article XX(g) as applying to exempt certain export restrictions from normal GATT disciplines. Indeed, even the single statement cited by the United States in support of its interpretation of the term "exhaustible" showed the intent of the drafters that export restrictions aimed at conservation of scarce or valuable domestic resources be exempted from GATT obligations under Article XX(g) (see paragraph 3.243). Moreover, inclusion of the term "export" within Article XX(i) did not mean, as claimed by the United States, that the drafters used the word "expor t" whenever they intended to limit Article XX exceptions to export restrictions. Article XX(i) covered measures "involving restrictions on exports of domestic materials necessary to ensure essential quantities of such materials to a domestic processing industry during periods when the domestic price of such materials is held below the world price as part of a governmental stabilization plan; ..." Since it would not make sense to impose import restrictions to ensure essential quantities of a domestic material, it was illogical to claim, as did the United States, that the term "export" was included within Article XX(i) for purposes of limiting the scope of the exception.

226. India, Pakistan and Thailand argued that the agreements referred to by the United States to suggest that Tuna I did not thoroughly analyze or take into account contemporaneous and subsequent practice regarding legitimate exceptions to prohibitions on quantitative restrictions did not represent an appropriate means of interpretation of the GATT. The US criticism therefore was wholly without merit. Prior treaties were not generally relevant to construction of a treaty under the general rules of interpretation set forth in the Vienna Convention. [289] Moreover, because none of these treaties could be construed as establishing the agreement of "all" of the parties to the GATT regarding interpretation of the GATT, such agreements did not constitute an appropriate means of interpretation of the GATT. The US arguments were equally unpersuasive with respect to the agreements which the United States claimed constituted subsequent practice. First, it was not clear why the United States had included the Convention Relative to the Preservation of Fauna and Flora in their Natural State or the Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere as "subsequent practice" since that agreement had entered into force on 14 January 1936 and 30 April 1942, respectively. Moreover, with respect to those agreements that were "subsequent" to the GATT, the United States had provided no evidence that they established the agreement of the parties regarding the interpretation of the GATT 1994. As noted by Tuna II, agreements of this kind did not constitute appropriate secondary means of interpretation. [290]

227. India, Pakistan and Thailand argued that Tuna II, contrary to statements made by the United States in this proceeding, never expressly found that a Member could impose measures respecting persons or things outside of its jurisdiction under Article XX(g). While the panel found in response to an argument made by one of the parties that there was no territorial limitation inherent in Article XX(g), the permissible actions or permissible regulation of persons or things outside of the territory of a Member discussed by the Panel were all premised on some other basis for the exercise of legal jurisdiction by the Member imposing the measure. The Tuna II Panel Report stated, in its concluding remarks on the jurisdictional issue, that:

[289] Inasmuch as the United States had failed to provide any evidence that US domestic legislation had any persuasive value in interpreting the GATT 1994, India, Pakistan and Thailand noted they would not address the US domestic legislation cited as evidence of "contemporary" practice.

[290] Panel Report on United States - Restrictions on Imports of Tuna, circulated 16 June 1994, not adopted, DS29/R, paragraph 5.20.

> "... under general international law, states are not in principle barred from regulating the conduct of their nationals with respect to persons, animals, plants and natural resources outside their territory. Nor are states barred, in principle, from regulating the conduct of vessels having their nationality, or any persons on these vessels, with respect to persons, animals, plants and natural resources outside their territory. A state may in particular regulate the conduct of its fishermen, or of vessels having its nationality or any fishermen on these vessels, with respect to fish located in the high seas.
>
> "In view of the above, the Panel could see no valid reason supporting the conclusion that the provisions of Article XX(g) apply only to policies related to the conservation of exhaustible natural resources located within the territory of the contracting party invoking the provision. The Panel consequently found that the policy to conserve dolphins in the eastern tropical Pacific Ocean, which the United States pursued within its jurisdiction over its nationals and vessels, fell within the range of policies covered by Article XX(g)". [291]

228. The Panel never stated or concluded that, under Article XX(g), a contracting party could adopt a measure related to the conservation of natural resources wholly outside its legal jurisdiction, territorial or otherwise. Rather, the panel moved on to other issues and ultimately found that Article XX(g) did not apply because the measure in question did not "relate to" the conservation of dolphins. Thus, Tuna II did not reach the issue raised by India, Pakistan and Thailand in this proceeding. The complainants' claim was not that there should be a territorial limitation read into Article XX(g), it was that there should be a jurisdictional limitation such that the Member imposing the measure had some legitimate claim of jurisdiction over the persons or things it was seeking to regulate or conserve and was not impinging upon the regulatory prerogatives of other Members. Nothing in the Tuna II Panel Report was inconsistent with the complainants' position that the US measure at issue in this case was beyond the scope of Article XX(g) because it was addressed to the conservation of natural resources exploited in the complainants' territorial waters or exclusive economic zone by their vessels and nationals over which the United States had no legitimate claim of jurisdiction.

229. Regarding the drafting history of Article XX(b), India, Pakistan and Thailand declared that the United States had pointed to nothing which demonstrated that the parties intended it to apply to measures to protect the life or health of people, animals, or plants outside of the jurisdiction of the Member applying the measure. The one example cited by the United States, prohibitions against the importation of weapons, was also directed at protecting the life and health of citizens of the Member applying the measure. Contrary to the US assertions, the 1927 Convention for the Abolition of Import and Export Prohibitions and Restrictions was not relevant to this Panel's inquiry. First, inasmuch as it had entered into force prior to the GATT 1947, it constituted neither subsequent agreement nor subsequent practice pursuant to Article 31 of the Vienna Convention. Nor had the United States suggested that the provisions of that Convention rose to the level of relevant rules of international law applicable in the relations between the parties. Moreover, as noted by the Tuna II Panel in response to almost identical arguments by the United States, this agreement did not constitute supplementary means of interpreting the GATT 1994. [292] Finally, the language of the 1927 Convention cited by the United States did not even support the proposition that the provision cited

[291] Ibid., paragraphs 5.17, 5.20 and 5.33 (emphasis added).

[292] Ibid., paragraph 5.20.

was intended to apply outside the jurisdiction of the party enacting the prohibition or restriction. [293] If any conclusions could be drawn from the cited provision, it was that conservation measures relating to animals should be analysed pursuant to Article XX(b). [294] If the US interpretation were to be accepted, the United States could decide, for instance, that it was in a better position than Thailand to determine how clean the air should be that Thai citizens breathed. It might then undertake to prohibit the importation of products made in factories that did not follow US mandated air emissions standards. Or, the United States might decide that water quality was of importance to the life and health of freshwater fish in China and might then ban the importation of goods that were manufactured by water polluting industries. Who could deny that clean air and clean water were necessary to the health of living things? The issue was who had the right to decide; who had the right to make the trade-off between additional environmental protection and economic growth. The drafters of the GATT clearly never intended to hand to a contracting party the right to make market access contingent upon the adoption of that party's preferred environmental policies in the territory or under the jurisdiction of another contracting party. Only by finding an implied jurisdictional limitation in Articles XX(b) and (g) could the GATT and this Panel definitely avoid reaching this absurd result.

230. The United States maintained that all the multilateral trade agreements cited above, adopted before and after the GATT 1947, in which the Parties agreed to trade measures for the conservation of natural resources outside of their jurisdiction, were relevant under Article 31(3)(c) of the Vienna Convention. In particular, all these agreements rebutted the complainants' argument that measures to conserve resources outside of a country's jurisdiction were inconsistent with international law. It was quite ironic that the complainants placed such heavy reliance on the UN Charter which never even mentioned trade, and then argued that multilateral trade agreements calling for trade measures were not relevant to the issues in this dispute. In addition, the post-1947 Agreements referred to were subsequent practice in the application of the treaty, pursuant to Article 31(3)(c) of the Vienna Convention, while the Agreements completed prior to the GATT 1947 were valid supplementary means of interpretation under Article 32 of the Vienna Convention. In particular, the pre-1947 Agreements "confirm[ed] the meaning resulting from the application of Article 31" that Article XX had never been intended to have any sort of jurisdictional limitation. As the United States had already explained, these treaties were particularly helpful in that they reflected the understanding of the 1927 Prohibitions Convention, which was a direct precursor of GATT Article XX. The United States agreed with the complainants that the two pre-1947 Conventions [295] should have been referred to not as subsequent practice, but as circumstances of conclusion of the GATT 1947.

231. The United States considered that India, Pakistan and Thailand mischaracterized the findings of the Tuna II panel when claiming that the Tuna II Panel "never expressly found that a Member could impose measures respecting persons or things outside of its jurisdiction under Article XX(g)". The Tuna II panel stated as follows:

> "The Panel noted that two previous panels have considered Article XX(g) to be applicable to polices related to migratory species of fish, and had made no distinction between fish caught

[293] India, Pakistan and Thailand noted that, while the terms degeneration and extinction, pointed out by the United States, might have served to clarify concerns which could be addressed as relating to life and health", these terms in no way defined the jurisdictional scope of the measures which could be taken.

[294] As to the US arguments concerning "contemporaneous" practice and subsequent practice, the arguments made by India, Pakistan and Thailand with respect the Article XX(g) were equally applicable to the US arguments with respect to Article XX(b) (see paragraph 200).

[295] 1936 Convention Relative to the Preservation of Fauna and Flora in their Natural State, and 1942 Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere, see paragraph 200.

> within or outside the territorial jurisdiction of the contracting party that had invoked this provision. ... The Panel then observed that measures providing different treatment to products of different origins could in principle be taken under other paragraphs of Article XX and other Articles of the General Agreement with respect to things located, or actions occurring, outside the territorial jurisdiction of the party taking the measure. An example was the provision in Article XX(e) relating to products of prison labour. It could not therefore be said that the General Agreement proscribed in an absolute manner measures that related to things or actions outside the territorial jurisdiction of the party taking the measure". [296]

The distinction the complainants tried to make between a "territorial" and a "jurisdictional" limitation was in fact only terminology. The Tuna II Panel explicitly relied on Article XX(e) which acknowledged that Members could take trade measures with respect to persons located solely within another country. Likewise, the Tuna II Panel found that Article XX(g) and XX(b) extended to measures intended to conserve resources outside the country imposing the measure. This finding applied equally to both the dolphins involved in the Tuna cases, and to the sea turtles involved here. It was simply not the case, as India, Pakistan and Thailand asserted, that the Panel in Tuna II had not rejected the argument that Article XX contained a jurisdictional limitation. Furthermore, the EC made this very same point regarding the Tuna II Panel Report in its third party submission (see paragraph 4.30). The EC also noted, as did the United States, that "no jurisdictional limitation on use of Article XX was imposed by the Appellate Body in the Reformulated Gasoline case" (Ibid).

232. India, Pakistan and Thailand replied that the United States misread the Vienna Convention when arguing the pre-1947 international Agreements were "relevant rules of international law". The complainants considered that in interpreting treaties, the Vienna Convention permitted reference to contemporaneous or subsequent agreement by "all of the parties" and contemporaneous or subsequent agreement by fewer than all of the parties which was later accepted by "all of the parties". The Vienna Convention also permitted reference to other "relevant rules of international law". However, this did not mean that reference could be made to agreements that did not involve all of the parties in order to interpret a term or terms in the Agreement, or the scope of the Agreement. "Relevant rules of international law" meant customary international law or rules to which all Members could be said generally to subscribe. Similarly, the post-1947 Agreements cited by the United States were not subsequent practice in application of the treaty because those agreements made no reference to the GATT and were not signed by "all parties to" the GATT 1947.

233. With respect of the Tuna II Panel Report, India, Pakistan and Thailand explained that by the term "jurisdiction" they referred not only to territorial jurisdiction, but to any form of legal jurisdiction appropriately exercised under recognized principles of international law. The complainants' view that Article XX(g) contained an implied jurisdictional limitation was supported by customary rules of international law which recognized the sovereignty of States to control persons or things within their legal jurisdiction, and by the drafting history of Article XX(g). An implied jurisdictional limitation was also vital to avoid a fundamental redistribution of rights and obligations under the GATT; one that handed nations with large markets the means to coerce other states to conform their environmental laws, conservation and health policies with those of the importing party as a condition of exercising rights that were otherwise guaranteed by the GATT. India, Pakistan and Thailand maintained that the Tuna II Panel Report never expressly found that a contracting party could impose measures with respect to persons or things outside its legal jurisdiction under Article XX(g). Rather, the Panel found that "the policy to conserve dolphins in the eastern tropical Pacific Ocean, which the

[296] United States - Restrictions on Imports of Tuna, not adopted, DS29/R, circulated 16 June 1994, paragraphs 5.15 and 5.16 (emphasis added).

United States pursued within its jurisdiction over its nationals and vessels, fell within the range of policies covered by Article XX(g)". That Panel never found that a contracting party could adopt a measure involving citizens and vessels or related to the conservation of natural resources falling within the exclusive economic zone of another contracting party. Indeed, the fact that some or all of the shrimp harvested in this case was harvested within the complainants' exclusive economic zone gave rise to an important distinction between the Tuna case and this case. There was even less justification for the assertion of jurisdiction by the United States in this case than in the Tuna case. Rather than reaching the issue of whether the United States could assert its jurisdiction on the high seas to foreign nationals and vessels harvesting tuna, the Tuna II Panel moved on to other issues and ultimately found that the measures taken to force other contracting parties to change their environmental policies did not "relate to" the conservation of exhaustible natural resources as set forth in Article XX(g) and were not "necessary" under Article XX(b). Thus, the Panel never specifically ruled on the precise jurisdictional issue raised by the complainants in this case. All of the drafting history reviewed by India, Pakistan and Thailand concerning this provision illustrated that the drafters were concerned to provide contracting parties with the latitude to conserve finite economic resources within their respective jurisdictions from depletion through unrestricted exploitation and exportation. The only drafting history cited by the United States was fully consistent with this interpretation. Thus, the framers had understood Article XX(g) to extend to things within the legal control of the contracting party enacting the measure. There was nothing in the expressed intent of the framers that was inconsistent with the notion of an implied jurisdiction limitation in this provision.

234. The United States replied that the complainants, not the United States, misread the Vienna Convention in noting the relevance of international agreements. The complainants' paraphrasing was inaccurate, and the words they quoted twice ("all of the parties") were not even found in Article 31. The United States also disagreed with the explanation given by the complainants that the "relevant rules of international law" mentioned in Article 31(3)(c) were "rules to which all contracting parties could be said generally to subscribe". In fact, the sources of customary international law were generally considered to include international conventions; international custom, as evidence of a general practice accepted as law; general principles of law recognized by nations; judicial decisions; and scholarly writings.[297] Nonetheless, the complainants proposed definition of "relevant rules of international law" did not even support their position. Certainly, not all GATT contracting parties could be said to subscribe to the complainants' posited rules of international law when many of those nations, including the complainants themselves, had entered into agreements calling for trade measures for the purpose of conserving resources outside of their jurisdiction. The United States also disagreed with the complainants' claim that the Tuna II Panel did not "reach" the issue of jurisdictionality. The Panel did reach this issue and ruled against the Tuna II complainants on their theory that Article XX did not apply because the measures sought to conserve dolphins outside of the United States. The United States repeated that the drafting history of Article XX included its precursor, the Prohibitions Convention, and that history was not consistent with the complainants' theory. Moreover, a number of international conservation agreements that called on parties to take actions to deal with matters beyond their jurisdiction existed at the time Article XX was drafted. The complainants showed no evidence that the drafters of GATT were seeking to change or limit this practice.

(c) Article XX(b)

235. The United States argued that, since the measures under Section 609 fell within the scope of Article XX(g) and met each requirement of the Article XX chapeau (see section (d) and (e) below),

[297]The United States referred to Shaw, International Law, (3d ed. 1991), (quoting Article 38(1) of the Statute of the International Court of Justice).

the Panel needed not, in accordance with the principle of "judicial economy" favoured by the Appellate Body[298], decide on the issue of whether the US measures fell within the scope of Article XX(b). However, should the Panel find that the US measure met the requirements of the Article XX chapeau but that for some reason Article XX(g) did not apply, then the Panel should find that the US measures were within the scope of Article XX(b).

236. India, Pakistan and Thailand responded that, since the United States did not meet the requirements under Article XX(g) and under the chapeau of Article XX (see section (d) and (e) below), the analysis of Article XX(b) was needed. Moreover, because the measures at issue purported to protect the life and health of sea turtles, a biological resource, the measures should be analysed under Article XX(b) rather than XX(g).

(i) Policy purpose of the measure

237. India, Pakistan and Thailand argued that the policy for which Section 609 was invoked did not fall within the range of policies designed to protect human, animal or plant life or health. By failing to provide newly affected nations with a phase -in period comparable to the period provided to initially affected nations, the United States had required foreign shrimp harvesters to use TEDs even though they might not have had time to acquire the TEDs and become trained in their use and might not be able to use them effectively, or forego exports to the United States. However, the United States itself had recognized that requiring use of TEDs with such little notice "will not result in any benefit to sea turtles in those nations newly covered, because fishermen with no experience in TEDs use are not likely to be able to use them effectively in the near term to protect sea turtles". [299] In light of this and similar statements, the United States could not credibly argue that the policy behind the embargo was the protection of sea turtle life and health.

238. Moreover, the legislative history of Section 609, pursuant to which the embargo was enacted, indicated that the purpose of the provision was to restrict imports. The bill which ultimately became Section 609 first emerged as a floor amendment to the Foreign Relations Authorization Act, 1990. [300] During debate on this bill, the principals sponsors discussed the need to redress the "competitive disadvantage of US shrimp fishermen vis-à-vis foreign fishermen". Further, a concern was expressed that foreign nations would "export a flood of shrimp into our country". [301] Although this bill did not pass, Section 609 was later included in the 1990 appropriations measure for the Departments of State, Justice, and Commerce. [302] In commenting on the provision, one senator explained that the embargo would mean that "... the price of shrimp obviously will go up because the supply will be down, so that Louisiana shrimpers, Texas shrimpers, Florida shrimpers will in effect have some form of compensation in the form of higher prices for their shrimp ...". [303] Further, another senator stated that

[298]The United States recalled that the Appellate Body Report on United States - Measure Affecting Imports of Woven Wool Shirts and Blouses (adopted 23 May 1997, WT/DS33, p. 23) approved of the principle of "judicial economy" in Panel rulings. In particular, the Appellate Body explained that "[a] panel need only address those claims which must be addressed in order to resolve the dispute".

[299]United States Court of International Trade, Earth Island Institute v. Warren Christopher, Memorandum in Support of Defendants' Motion for Modification of 29 December 1995, Order, p. 11.

[300]135 Congressional Record S.1160.

[301]135 Congressional Record S. 8373 -8376.

[302]House Resolution 2991.

[303]135 Congressional Record S. 12266.

it was "... patently unfair to say to the US industry that you must abide by these sets of rules and regulations, but other countries do not have to do anything, and, yet we will then give them our market".[304] This language, together with the fact that Section 609 did not provide the same phase -in period that US shrimp harvesters had been granted, indicated that the policy pursuant to which the embargo was enacted was protection of the US shrimp industry, not sea turtles. Further, while Section 609 was later codified as a note to the Endangered Species Act, the US legislative branch did not specifically make it an amendment to the Endangered Species Act. It could be inferred from this that the purpose of the provision was something other than protection of endangered species.

239. Malaysia noted that in the present case, Section 609 appeared at the very most to be a legislation designed to reduce the mortality rate of turtles and, therefore, might possibly, if at all, fall under the policy to protect animal life.

240. The United States argued that the measures under Section 609 involved the protection of animal life or health. Sea turtles were obviously animals. As noted, Section 609(a) called for the negotiation of bilateral and multilateral agreements for the protection and conservation of sea turtles, i.e. to protect the life and health of these animals. Similarly, Section 609(b) was intended to protect and conserve the life and health of sea turtles by requiring that shrimp imported into the United States had not been harvested in a manner that would harm these animals. The United States rejected the argument made by India, Pakistan and Thailand that the United States had enacted Section 609 primarily for protectionist purposes, i.e., to protect its domestic shrimping industry from foreign competition. It considered that such argument was based on isolated excerpts from the legislative history of Section 609 in the US Congress. Given that the United States had negotiated a multilateral agreement with Western Hemisphere nations to require the use of TEDs, and had made extensive efforts to disseminate TEDs technology worldwide, this argument was simply not credible. In fact, Malaysia conceded in this proceeding, albeit grudgingly, that Section 609 was designed to protect sea turtles. Furthermore, an examination of the full legislative history confirmed that the overriding intent of Section 609 was to protect endangered species of sea turtles. Senator Breaux, who introduced Section 609 in the US Senate, described his intentions in doing so as follows:

> "[T]he amendment I am offering today is intended to promote the international conservation of sea turtles, and to provide the groundwork for ensuring that foreign fishermen bear as great a conservation burden as our own industry ... This amendment focuses on the role that other nations must play if we are to fulfil our goal of effective sea turtle conservation. The amendment before the Senate would facilitate international conservation efforts". [305]

Senator Breaux's colleagues echoed his sentiments:

> "I rise today to support the Breaux amendment as it serves to strengthen our Nation's commitment to protect endangered sea turtles from drowning in commercial shrimp nets". (Senator Chafee) [306]
>
> "I rise in support of the Breaux amendment to strengthen US efforts to conserve threatened and endangered sea turtles". (Senator Shelby) [307]

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[304] Ibid.

[305] Congressional Record S8373-4 (20 July 1989).

[306] Congressional Record S8375 (20 July 1989).

These comments reflected the prevailing view of the United States Congress in enacting Section 609 that the measures taken within the United States to protect endangered sea turtles would not be effective unless other nations with shrimp trawl fisheries that killed sea turtles took comparable action.

241. The United States explained that India, Pakistan and Thailand misunderstood the US legal system when claiming that the fact that Section 609 was placed in the United States Code (U.S.C.) as a note to Section 1537 of Title 16 of the U.S.C., instead of as an amendment, indicated that "the purpose of the provision was something other more than protection of endangered species". This, in fact, did not provide an indication of the intent of Congress in enacting the provision. When, as here, a new law was a stand-alone provision that did not amend an existing law, Congress did not specify where it would be placed on the U.S.C. Instead, that decision was made by the Office of Law Revision Counsel (OLRC), an independant office of the House of Representatives that was responsible for compiling the U.S.C. The OLRC was not involved in the legislative process, and, as held by the Supreme Court of the United States, the OLRC's decisions regarding the organization of the U.S.C. did not provide an indication of Congressional intent in enacting a law. [308] Accordingly, whether Section 609 was placed in Title 16 as a note, or, for example, was assigned to a new section of Title 16, was a choice made at the discretion of the OLRC, and provided no indication of Congressional intent.

(ii) "Necessary ..."

242. Assuming, arguendo, that the embargo was enacted for the purpose of protecting sea turtle life and health, India, Pakistan and Thailand submitted that the embargo was not necessary to accomplish that purpose. As stated in a previous case, "[i]n the ordinary meaning of the term, 'necessary' mean[s] that no alternative exist[s]". [309] Another Panel interpreting the term "necessary" in the context of Article XX(b) had stated that "the import restrictions imposed by Thailand could be considered to be "necessary" in terms of Article XX(b) only if there were no alternative measures consistent with the General Agreement, or less inconsistent with it, which Thailand could reasonably be expected to employ to achieve its health policy objectives". [310] In this case, the United States had not and could not demonstrate that alternative GATT -consistent measures were not available to it at the time that it had promulgated the shrimp embargo. Indeed, Section 609(a) specifically required the US Secretary of State to "initiate negotiations as soon as possible for the development of bilateral or multilateral agreements with other nations for the protection and conservation of such species of sea turtles".[311] This mandate indicated that no such attempts had been made prior to enactment of the legislation which authorized the embargo.

(..continued)

[307] Congressional Record S8375 (20 July 1989).

[308] See United States v. Welden, 377 U.S. 95, 98 n.4.

[309] Panel Report on United States - Restrictions on Imports of Tuna, not adopted, circulated 16 June 1994, DS29/R, paragraph 5.35.

[310] Panel Report on Thailand - Restrictions on Importation of and Internal Taxes on Cigarettes, adopted 7 November 1990, BISD 37S/200, paragraph 75. See also Appellate Body Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/R.

[311] 16 USC. § 1537 note (a)(1) (emphasis added).

243. The embargo was not "necessary" because the complainants already had an adequate programme in place for the protection of sea turtles within their jurisdiction. Inasmuch as the sea turtles in question occurred in waters within the jurisdiction of other nations, the United States could have sought to protect them through international agreements which did not include unilateral import restrictions. Such measures would achieve the US policy goal, while being consistent with the GATT. Pursuant to the CIT's 8 October 1996 Order, the embargo applied to all wild harvested shrimp or shrimp products from non-certified countries, whether or not such shrimp had been harvested in a manner that harmed or could harm sea turtles. In order to become certified, other nations had to adopt conservation policies comparable to US policies. [312] Thus, the embargo could not be considered "necessary" because it was a measure taken to force other countries to change their policies and practices and could be effective only if such changes occurred. [313] Finally, the embargo, as implemented, could not be considered "necessary" when the United States itself had stated that implementing the embargo without providing a sufficient phase-in period for newly affected nations "will not result in any benefit to sea turtles in those nations newly covered, because fishermen with no experience in TEDs use are not likely to be able to use them effectively in the near term to protect sea turtles".[314] Indeed, prior to enforcing the embargo pursuant to the CIT's 29 December 1996 Order, the United States had gone so far as to state that "[e]ven assuming the willingness of affected nations to comply with Section 609, a May 1, 1996, compliance date will achieve no conservation benefit". [315]

244. Malaysia submitted that in its examination of whether inconsistent measures were necessary to achieve the policy objectives of the United States, the Gasoline Panel Report noted that the term "necessary" had been interpreted in the context of Article XX(d) by the Panel in the Section 337 case which had stated that:

> "a contracting party cannot justify a measure inconsistent with another GATT provision as "necessary" in terms of Article XX(d) if an alternative measure which it could reasonably be expected to employ and which is not inconsistent with other GATT provisions is available to it. By the same token, in cases where a measure consistent with other GATT provisions is not reasonably available, a contracting party is bound to use, among the measures reasonably available to it, that which entails the least degree of inconsistency with other GATT provisions".[316]

The Gasoline Panel also relied on the Cigarettes case, which had followed the same reasoning under Article XX(b)[317], and found that the aspect of the baseline establishment methods found inconsistent with Article III:4 was not justified under Article XX(b) as "necessary to protect human, animal or plant life or health". [318]

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[312]The complainants noted that Earth Island Institute had challenged the CIT's interpretation of the scope of shrimp subject to the embargo. Earth Island Institute claimed that all shrimp from non-certified countries, including shrimp harvested in aquaculture, was subject to the embargo.

[313]Panel Report on United States - Restrictions on Imports of Tuna, not adopted, circulated 16 June 1994, DS29/R, paragraph 5.39.

[314]United States Court of International Trade, Earth Island Institute v. Warren Christopher, Memorandum in Support of Defendants' Motion for Modification of 29 December 1995, Order, p. 11

[315]Ibid.

[316]Panel Report on United States - Section 337 of the Tariff Act of 1930, adopted 7 November 1989, BISD 36S/345, paragraph 5.26.

[317]Panel Report on Thailand - Restrictions on Importation of and Internal Taxes on Cigarettes, adopted 7 November 1990, BISD 37S/200, paragraph 75.

[318]Panel Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/9, paragraph 6.29.

245. Applying the principle pronounced by previous panels to the present case, Malaysia submitted that the US import prohibition was not necessary to further the US policy objectives of protecting human, animal or plant life or health for the following reasons. In Tuna II, the Panel noted that the text of Article XX was not explicit as to whether under Article XX(b) measures necessary to protect the life or health of animals could include measures taken so as to force other countries to change their policies within their own jurisdictions and requiring such changes in order to be effective. The Panel held the view that Article XX should be interpreted narrowly and in a way that preserved the basic objectives and principles of GATT. [319] The Panel concluded that "measures taken so as to force other countries to change their policies, and that were effective only if such changes occurred, could not be considered 'necessary' for the protection of animal life or health in the sense of Article XX(b)".

246. Malaysia regarded the import prohibition as an application of force by a foreign nation to change its turtle conservation policy without the slightest consideration for its serious, effective and continuous efforts to ensure the survival of turtles both domestically and internationally. As such the US import prohibition had the effect of forcing Malaysia to change its policy with regard to the protection of turtles over and above the turtle conservation measures currently in place. As Malaysia had stated, TED was not the only effective conservation method. Moreover, the import prohibition being directed at shrimp and not at turtles would not necessarily result in the adoption of TEDs by legislation or administrative action in the countries concerned. Other willing markets were available. Malaysia, while studying the effectiveness of TEDs, had directed its exports to other markets. Similar action would be taken by other affected countries. Thus, the import prohibition could not be deemed necessary for the conservation of sea turtles. In the Tuna I Panel Report Mexico had submitted the import prohibition imposed by the US was not necessary because alternative means consistent with GATT were available to protect dolphin life or health, namely international cooperation between the countries concerned. [320] This alternative means was in fact envisaged in Section 609(a)(1)(2) and (3) which provided that the US Secretary of State may in consultation with the US Secretary of Commerce with respect to the conservation of the five species of sea turtles, inter alia, initiate negotiations for the development of bilateral or multilateral agreements with other nations and all foreign governments and encourage such other agreements to promote such purpose. The United States had concluded the Inter-American Convention for the Protection and Conservation of Sea Turtles on 5 September 1996 with only five governments in the Western Hemisphere. Malaysia therefore submitted that the United States had not shown that it has exhausted all options reasonably available to it to pursue its sea turtle protection objectives through measures consistent with GATT, in particular through the negotiation of international cooperative arrangements on a multilateral basis considering especially that turtles were highly migratory. There was nothing to stop the United States from concluding a similar agreement with Malaysia or any other country instead of relying on the unilateral action of imposing an import prohibition.

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[319] Panel Report on United States - Restrictions on Imports of Tuna, not adopted, DS29/R, circulated 16 June 1994, paragraphs 5.38-39: "[i]f Article XX(b) were to be interpreted to permit contracting parties to deviate from the basic obligations of GATT by taking trade measures to implement policies within their own jurisdiction, including policies to protect living things, the objectives of GATT would be maintained. If however Article XX(b) were interpreted to permit contracting parties to impose trade embargoes so as to force other countries to change their policies within their jurisdiction, including policies to protect living things, and which required such changes to be effective, the objectives of GATT would be seriously impaired".

[320] Panel Report on United States - Restrictions on Imports of Tuna, not adopted, circulated 3 September 1991, BIDS 39S/155, paragraph 5.24.

247. The United States, like Malaysia, was a party to the CITES. This Convention gave recognition to the sovereignty principle whereby each Party was free to protect its own endangered species of plants or animals. This principle was echoed in the following preambular provision, which recognized that "peoples and States are and should be the best protectors of their own fauna and flora". CITES' Preamble also recognized the principle of international cooperation by stating that "international cooperation is essential for the protection of certain species of wild fauna and flora against over-exploitation through international trade". Appendix I to the CITES was a list including all species of sea turtles which were threatened with extinction and which were or could be affected by trade. Malaysia noted that the United States had not entered a reservation with regard to the species of turtles specified for protection in the application of Section 609 and was therefore governed by CITES. The relevant provisions of CITES allowed both international and domestic measures to be taken by any country based on the principle of mutual understanding and cooperation and with due regard to a nation's sovereignty. No nation which was a party to CITES should resort to any measure such as an import prohibition which was inconsistent with GATT. [321] Malaysia therefore submitted that other alternative means were clearly available to the United States to protect the life and health of sea turtles under Article XX(b), such as multilateral or bilateral agreements for the conservation of sea turtles with other countries; the import prohibition was therefore not necessary to protect the live and health of sea turtles as such.

248. The United States replied that the US measures under Section 609 were "necessary", in two different senses. First, efforts to reduce sea turtle mortality were "necessary" because, as noted, all species of sea turtles were threatened with extinction. Again, each of the complainants had adopted at least some measures to conserve sea turtles, and each agreed that sea turtle conservation was necessary. Second, the measures under Section 609 relating to the use of TEDs were "necessary" because other measures to protect sea turtles were not sufficient to allow sea turtles to recover from the brink of extinction. Even though each complainant was a party to CITES, which prohibited trade in sea turtles, and each complainant stated that it had adopted certain sea turtle conservation measures - such as beach conservation - sea turtle populations exhibited alarming declines in the Southeast Asian and Indian Ocean regions. This result was not surprising since, as noted, accidental drowning in trawl nets accounted for a greater number of sea turtle deaths than all other human-induced causes combined. Without the use of TEDs, other measures to protect sea turtles were insufficient to produce an increase in sea turtle populations because these measures had not been demonstrated to have any significant effect on the number of sea turtles that survived to adulthood and reproduced. Further, in regions where TEDs were used in conjunction with other sea turtle conservation measures, there were signs of encouraging increases in sea turtle populations.

249. The United States further submitted that the grounds asserted by India, Malaysia, Pakistan and Thailand to argue that the US turtle conservation measures under Section 609 were not "necessary" within the meaning of Article XX(b) were without merit. The United States disagreed with statements in earlier panel reports, referred to by the complainants, that the word "necessary" should be interpreted to mean that the United States had to demonstrate that "there were no alternative measures consistent with the GATT 1994, or less inconsistent with it, which [the United States] could reasonably be expected to employ to achieve its ... policy objectives". The adoption of this complex, multi-step test, in place of the single word "necessary" actually used in the text of the GATT 1994, was not supported in the text of the GATT 1994 or in its negotiating history. Moreover, the replacement of the actual treaty language in Article XX with a gloss developed by one or more panels was contrary to the teachings of the Appellate Body in the Gasoline case. Addressing in that case

[321] Article XIII and Article XIV of CITES.

Article XX(g) and the differing introductory terms (such as "necessary", "essential", and "relating to") used in the various paragraphs of Article XX, the Appellate Body explained that:

> "The relationship between the affirmative commitments set out in, e.g. Articles I, III, and XI, and the policies and interests embodied in the "General Exceptions" listed in Article XX, can be given meaning within the framework of the General Agreement and its object and purpose by a treaty interpreter only on a case-by-base basis, by careful scrutiny of the factual and legal context in a given dispute, without disregarding the words actually used by the WTO Members themselves to express their intent and purpose". [322]

Further, even though the participants in the Gasoline appeal agreed that "relating to" in Article XX(g) could be interpreted as "primarily aimed at", the Appellate Body cautioned that "the phrase 'primarily aimed at' was not itself treaty language and was not designed as a simple litmus test for inclusion or exclusion from Article XX(g)".

250. The same principles applied to the complainants' proposed gloss on the meaning of the term "necessary". The proposed "least inconsistent measure" test was not itself treaty language, and could not serve as a "simple litmus test" for measures covered by Article XX(b). Instead, whether a measure was "necessary" under Article XX(b) was to be determined "on a case-by-case basis, by careful scrutiny of the factual and legal context in the given dispute". [323]

251. The United States submitted that the test for "necessary" proposed by the complainants was complex. First, a WTO Member maintaining a measure was required to prove a negative by being required to establish that it had no other measure reasonably available to it that was consistent with the GATT 1994: it had to establish the non-existence of other measure. Second, the WTO Member had to demonstrate that, among the measures reasonably available to it, it had employed the measure that entailed the least degree of inconsistency with other provisions of the GATT 1994: the WTO Member had to establish the range of alternatives available and rank them according to "least inconsistency" with the provisions of the GATT 1994. The use of one word, "necessary", was a slender reed indeed on which to hang such an extensive and complex set of obligations. Rather than attempt to impose a reading of the text that no reader could be expected to know, it would be wiser to interpret the language in accordance with its normal meaning.

252. This was even more so where there was no discussion of the significance of the term "necessary" in the drafting history of Article XX. No trade agreement prior to the Havana Charter had used the term "necessary" in reference to protecting plant and animal life and health. Article XX itself had not been interpreted by a dispute settlement panel under the GATT until relatively recently, and each panel had modified the interpretation of this provision with each dispute. Where there was no basis in the text of an agreement itself, in the negotiating history, or in the context of the provision for a proposed interpretation of a provision, no panel should attempt to create an interpretation and then assert after the fact that this was the obligation assumed by a WTO Member when it subscribed to the WTO Agreement including GATT 1994. This was particularly true where there was no need for such an interpretation. The complainants' proposed interpretation appeared to be aimed at ensuring that purported health, safety and other measures were not really a form of trade

[322] Appellate Body Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/9, p. 18 (emphasis added).

[323] Ibid.

protectionism. That concern was more properly met by addressing the requirement in the chapeau that measures under Article XX were not to be applied in such a manner that they would constitute a disguised restriction on international trade, rather than by reading into a word such as "necessary" a series of complex requirements that were never negotiated or discussed. It was peculiar to propose creating an interpretation with no basis in the text for a term such as "necessary" when in the same article there was explicit language that would serve to guard against the abuse of the measures listed in Article XX by applying them for protectionist purposes. After all, the basic thrust of the GATT was to prevent protectionism, not to intrude on the decision making of the contracting parties when pursuing legitimate policy objectives such as environmental protection.

253. The United States argued that, in practice, under the complainants' proposed rule, a WTO Member would not be able to determine whether a measure it was considering would be consistent with its obligations under the GATT 1994 until after the fact. This was because that determination depended on the alternatives that a dispute settlement panel considered to be reasonably available to the WTO Member. This would engage panels in second-guessing domestic legislative or regulatory decision-making based on a factual inquiry beyond the competence of trade panels. For example, a panel would need to decide whether an alternative measure adequately achieved the legitimate policy objectives of the WTO member concerned, which could involve complex technical questions and scientific judgements. The United States noted that, while panels had access to technical experts, the question was not one of having expert advice available, but whether a panel was to substitute its judgement on these issues for that of the government concerned.

254. The complainants' proposed interpretation was also too intrusive on the decision-making of each WTO Member. To accept such an interpretation would require dispute settlement panels to dictate the specific measure to be adopted by a WTO Member, since presumably there was only one measure among all the alternatives that was the "least inconsistent" with the GATT 1994. This run counter to the agreed course of practice for dispute settlement panels. Again, it should not be assumed that the contracting parties had agreed to such an intrusive obligation by implication. Such an interpretation should be based on an explicit agreement to these obligations. The complainants not only urged the adoption of a gloss that "necessary" meant the "least GATT-inconsistent measure", but they further expanded the scope of that gloss beyond that found in any adopted or unadopted panel report. In particular, the complainants argued that the "least GATT-inconsistent measure" had to include the negotiation of bilateral or multilateral agreements. No panel had made such a finding. [324] Rather, panels examined whether the country imposing a requirement on an imported product could have imposed a less burdensome requirement.

255. The United States observed that, if adopted, the complainants' position would entirely rewrite Article XX(b). Nothing in the text of the GATT 1994 would limit this new "international cooperation" requirement to environmental measures. Instead, Article XX(b) would no longer apply to any measures necessary for the protection of animal life or health, including sanitary measures, unless the importing country first asked all exporting countries to agree to negotiate a multilateral agreement containing similar requirements. As there was no mention of this in the text of Article XX, it was inconceivable that the drafters intended such a sweeping limitation. The complainants' position was also clearly at odds with the Agreement on the Application of Sanitary and Phytosanitary Measures, which in part interpreted Article XX(b). That agreement contained no requirement to seek international negotiation before taking a sanitary or phytosanitary measure. Although the United States strongly disagreed with the complainants' unprecedented proposal to write an "international

[324]The United States considered that Malaysia's argument was somewhat misleading by stating that in the Tuna I case, Mexico had submitted that international cooperation was a less GATT-inconsistent alternative. However, the Tuna I Panel had not adopted Mexico's position on this issue.

cooperation" requirement into Article XX(b), in this case the United States did indeed offer to negotiate a multilateral sea turtle conservation agreement with Asian countries, including the four complainants. The complainants, however, exhibited no interest in the United States offer. Thus, the negotiation of a bilateral or multilateral agreement to further sea turtle conservation was not an option reasonably available to the United States.

256. The United States rejected the complainants' arguments that their existing turtle conservation measures were sufficient for sea turtle conservation, and thus that a measure such as Section 609, which encouraged the use of TEDs, was not "necessary". The scientific data showed, on the contrary, that sea turtle populations were declining in the Southeast Asian and Indian Ocean, that accidental drowning in shrimp trawl nets was the greatest single cause of human-induced sea turtle mortality, and that the use of TEDs greatly reduced the harm to sea turtles. Moreover, the quotation made by India, Pakistan and Thailand from a brief filed by the United States in domestic litigation concerning the application of Section 609 to nations outside of the Caribbean Basin was out-of-context since the issue in that proceeding was the timing of when Section 609 would be applied to shrimp harvested in nations outside with Wider Caribbean/Western Atlantic region. In this context, the United States had explained to the Court that a delay in the effective date of its ruling to apply Section 609 on a global basis as of 1 May 1996 would allow more time for the governments and shrimp fishermen in foreign nations to become accustomed to TEDs. The United States had not argued, as implied by India, Pakistan and Thailand, that application of Section 609 on a global basis would not promote sea turtle conservation.

257. Finally, the four complainants argued that Section 609 was not "necessary" because it would "force" other nations to change their sea turtle conservation policies. Malaysia, and implicitly India, Pakistan and Thailand, based this argument on a finding in the Tuna II report. That finding, however, was totally without foundation in the text of the GATT 1994. And, in fact, the GATT 1994 indicated that trade measures could take effect through their influence on countries. For example, Article XX(e) covered measures relating to the products of prison labour. Since the management of prisons was almost universally within the sphere of governments, Article XX(e) unquestionably was intended to allow trade measures to that could serve to influence the policies and practices of governments.

258. India, Pakistan and Thailand argued that the United States confused the necessity of protecting sea turtles from extinction with the necessity of the specific trade measure purportedly chosen for that purpose, i.e. Section 609. While Thailand agreed with the general goal of protecting sea turtles from extinction, it disagreed with the means chosen to this end by the United States, and in particular that Section 609 was necessary to achieve this goal. Contrary to US assertions, the fact that all species of sea turtles were threatened with extinction did not make the US measures necessary. In fact, the US success in negotiating the Inter -American Convention demonstrated that sea turtles could be, and should be, protected through international cooperation rather than unilateral measures. Further, while the United States put forth scientific evidence to demonstrate that it was important to protect juvenile sea turtles, it did not demonstrate that a TEDs requirement applicable to the shrimp fisheries of all nations was necessary to accomplish that goal. The United States did not demonstrate that the incidental taking of sea turtles in shrimp trawl fisheries was a significant problem in Asia, Australia and Oceania or that there could not be other measures of equal or greater importance that could be taken to protect juvenile sea turtles. As noted previously, sea turtle populations in the complainants' waters was stable and slight declines were not related to shrimping. Even where it could be demonstrated that shrimp trawling was a primary cause of sea turtle mortality, there might be other measures that could reduce that mortality at less cost, such as reduced tow -times or time and area closures. The US claim that this Panel should ignore the interpretation of the term "necessary" adopted by other panels was also without merit. Indeed, the United States made virtually the same

arguments to the Tuna II Panel, which found that a virtually identical restriction on tuna imports did not meet the necessity test. The only new aspect of the argument related the Gasoline Appellate Body Report. However, the Gasoline report specifically found that the treaty language "relating to" could be interpreted as meaning "primarily aimed at" and nothing in its decision led to the conclusion that the term "necessary" could not be interpreted to mean that there were no alternative measures consistent with the GATT 1994, or less inconsistent with it, as several previous panels had found.

259. Malaysia submitted that the United States was not interpreting the term "necessary" in a manner consistent with the Tuna II and the Gasoline panel reports. First, there were other options "consistent or less inconsistent" with the General Agreement that the United States could reasonably consider. Second, Section 609 could not be considered as "necessary" as it forced other countries to change their policies on the conservation of sea turtles and was ultimately effective only if such changes occurred. The United States should only resort to an import prohibition upon the exhaustion of all other reasonable options open to it, including entering into multilateral, regional or bilateral agreements with other countries. In this respect, it was not up to the Panel to decide what was the best option, but merely to conclude whether the United States had acted within the ambit of Article XX in imposing the import prohibition.

260. The United States argued that the measures under Section 609 were "necessary" in two different senses. First, efforts to reduce sea turtle mortality were "necessary" because, as noted, sea turtles were threatened with extinction. Second, the US measures under Section 609 relating to the use of TEDs were "necessary" because shrimp trawling without TEDs was the largest source of human-induced sea turtle mortality. Regarding the argument made by India, Pakistan and Thailand that the United States had confused the necessity of protecting sea turtles with the necessity of the specific trade measure chosen for that purpose, the United States responded that, to the contrary, it had addressed both of these matters separately and distinctly (see above paragraph 3.222). The United States noted that the complainants agreed with the general goal of protecting sea turtles from extinction, but disagreed with whether Section 609 was necessary to achieve this goal. Although only the second point was in dispute in this case, there certainly was no "confusion" in the United States discussion. Rather, the United States submitted that it was helpful to the Panel to establish that the complainants agreed with the United States that it was necessary to protect sea turtles from extinction. Indeed, all complainants accepted not only that sea turtles needed to be protected from extinction, but also the principle that import restrictions or prohibitions were needed to protect sea turtles, regardless of whether those sea turtles were outside their "jurisdiction". Under CITES, all complainants had committed to imposing import restrictions on endangered sea turtle and sea turtle products, regardless of where the sea turtles were harvested.

261. India, Pakistan and Thailand replied that, while it might be true that TEDs installed in shrimp trawl nets were necessary to protect sea turtle population in US coastal waters, the same could not be said of the complainants. In fact, sources cited by the United States specifically cited egg harvest as the cause of recorded declines of the complainants' sea turtle populations. Moreover, the measures were not "necessary" because they were measures taken to change policies and practices of other Members and could be effective only if such changes occurred. As found by the Tuna II Panel, measures that could be effective only if they were followed by changes in the policies or practices of other Members were not necessary to protect animal life or health. Finally, the measures were not necessary because there were other, GATT consistent or less inconsistent measures that could be taken to achieve the same objective. The United States did not deny this point, but argued that past panels criteria for determining the necessity of the measure should be disregarded by this Panel. India, Pakistan and Thailand were, however, of the view that these panels had correctly interpreted the term "necessity", and such an interpretation was essential to maintain the balance of rights and obligations in WTO, particularly if the Panel were to find that there was no implied jurisdictional

limitation in Article XX(b). This interpretation was also consistent with the generally accepted view that the exceptions contained in Article XX had to be construed narrowly, because they were derogations from normal GATT obligations. As to the US argument that under CITES the complainants had accepted that import restrictions or prohibitions were needed to protect sea turtles, India, Pakistan and Thailand replied that their CITES membership demonstrated in fact that they had the sovereign right to determine which measures should be taken to protect the life and health of animals located within their jurisdiction, as well as the right to agree with other nations after engaging in negotiations what those measures would be. The fact that the complainants had agreed to import restrictions in another context did not make the unilateral action taken by the United States "necessary" in this dispute.

262. According to Malaysia, the argument that TEDs were necessary because shrimp trawling was the largest source of human-induced sea turtle mortality was not applicable to Malaysia, where the incidental capture of turtles was in fish trawls and not shrimp trawls. Moreover, the United States unduly generalized when stating that the complainants agreed that import restrictions or prohibitions were needed to protect sea turtles, regardless of whether those sea turtles were outside their "jurisdiction". Finally, Section 609 did not apply to flatback and olive ridley turtles. This demonstrated that the United States implicitly recognized the fact that they could not impose restrictions on sea turtles outside their jurisdiction.

(d) Article XX(g)

(i) Policy to conserve exhaustible natural resources

263. India, Pakistan and Thailand argued that the language contained in Article XX(g) providing an exception for measures "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption" was to be interpreted "in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose". [325] A reasonable interpretation of the term "exhaustible" was that it referred to finite resources, such as minerals, rather than biological or renewable resources. Such finite resources were exhaustible because there was a limited supply which could and would be depleted unit for unit as the resources were consumed. If, however, all natural resources were considered to be "exhaustible", the term "exhaustible" would be rendered superfluous. Such a result was inconsistent with general rules of treaty interpretation. [326] In the view of India, Pakistan and Thailand, the conclusion in the Gasoline case that Article XX(g) applied to the measure at issue notwithstanding the fact that clean air was "renewable" [327], was based on misplaced reliance on two prior panel reports. In Salmon/Herring, the meaning of the term "exhaustible" was not at issue; rather, both parties had agreed that salmon and herring were exhaustible natural resources. [328] Nor had this issue been raised in the Tuna II Panel

[325] Article 31 of the Vienna Convention on the Law of Treaties.

[326] Appellate Body Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/9, p. 23 ("One of the corollaries of the "general rule of interpretation" in the Vienna Convention is that interpretation must give meaning and effect to all the terms of a treaty").

[327] Panel Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/9, paragraph 6.37.

[328] Panel Report on Canada - Measures Affecting Exports of Unprocessed Herring and Salmon, adopted 22 March 1988, BISD 35S/98, paragraph 4.4.

Report; in that dispute, the EC had argued that dolphins were not a "resource" because there was no trade in dolphins.[329]

264. The fact that the term "exhaustible" was intended to mean finite physical resources, rather than biological resources, was further confirmed by the drafting history of Article XX(g). The exceptions which appeared in Article XX originated during the drafting of the commercial policy chapter of the draft ITO Charter. Throughout the preparatory meetings held for purposes of drafting the ITO Charter, discussion of the exception reflected in Article XX(g) focused on "raw materials", "products" and "minerals".[330] For example, much debate occurred over the language requiring the measure to be made effective in conjunction with restrictions on domestic product or consumption. After noting that "export restrictions should be permitted for the preservation of scarce natural resources even if there is no restriction on domestic consumption", the delegate from Brazil made the following comment:

> "I gave an example when I first raised this point of our having resources of manganese, for example, which are really ample for our present or prospective uses, but if we continued exporting them without limit, as we have been doing in the past, then they might very soon be exhausted. The main objection, which I recognize [is] a very fundamental objection, raised against this was that such permission might be used in order to prevent the establishment, based on your raw material, in another country of a like industry as we have at home".[331]

During discussions at the Second Session in Geneva, the delegate from India repeated a suggestion that had been made by his delegation in London that the words following "natural resources" be deleted. The Indian delegate then explained his suggestion as follows:

> "I shall give an illustration which will clarify the reason for this suggestion. A mineral of much strategic and industrial importance is being extensively mined, and practically the whole production is being exported. We wish to conserve it for more effective or beneficial and planned use later. The easiest and most effective way to secure this is by limiting exports. We cannot do this with Article XX(g)] as it stands, unless we link it with a somewhat unrealistic restriction on domestic production or consumption. It is to avoid having recourse to such steps that we made this suggestion, and if the Commission sees no objection, I would request that the suggestion be left on the record".[332]

265. India, Pakistan and Thailand considered that the drafting history of Article XX(g) supported the interpretation that "exhaustible natural resources" was intended to mean finite resources only. Since sea turtles were a renewable, rather than an "exhaustible" natural resource, the United States embargo could not be justified pursuant to Article XX(g).

266. Malaysia submitted that, for the purpose of interpreting Article XX(g), the Panel should follow the systemic approach adopted by the Appellate Body in the case Taxes on Alcoholic Beverages premised on Article 31 of the Vienna Convention of the Law of Treaties (VCT) which provided that "a treaty shall be interpreted in good faith in accordance with the ordinary meaning to

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[329]Panel Report on United States - Restrictions on Imports of Tuna, not adopted, DS29/R, circulated 16 June 1994, paragraph 3.52.

[330]E/PC/T/C.II/50, p. 4-5; E/PC/T/C.II/QR/PV/5, p. 79; E/PC/T/A/PV/25, p. 30.

[331]E/PC/T/C.II/QR/PV/5, p. 79.

[332]E/PC/T/A/PV/25, p. 30.

be given to the term of the treaty in their context and in the light of its object and purpose". [333] Using this systemic approach, the interpretation to be ascribed to a measure under Article XX(g) could not be ascribed to a measure under Article XX(b) because it would render the systemic approach advocated by the Appellate Body meaningless. Sea turtles being living things, they could only be considered under Article XX(b) whereas Article XX(g) was meant for non living exhaustible natural resources. Malaysia therefore submitted that, given the systemic approach in the interpretation of Articles XX(b) and (g), the United States could not invoke both the exceptions simultaneously, for to do so would be inconsistent with the findings of the Appellate Body.

267. The United States submitted that sea turtles were important natural resources. They were an ancient and distinctive part of the world's biological diversity, and served key functions in the ecosystems they inhabited. That sea turtles were important natural resources did not appear to be at issue in this dispute; each of the four complainants stressed that it had adopted at least some measures to conserve sea turtles. Furthermore, sea turtles were exhaustible. This was underscored by the fact that all species of sea turtles faced the danger of extinction. CITES - to which all four complainants were parties - included an Appendix I listing species threatened with extinction. All species of sea turtles had been included in CITES Appendix I since 1975. Other international agreements also recognized the endangered status of sea turtles. That sea turtles were threatened with extinction - and thus nearly exhausted - confirmed that they were certainly exhaustible. This, too, did not appear to be at issue in this dispute.

268. The United States further argued that the four complainants' argument that Article XX(g) could not apply to "biological or renewable resources" was completely unsupported by the text of the GATT 1994, was contrary to the findings of prior panels, and unsupported by the drafting history of the GATT 1994. In short, the Panel should roundly reject this unsupportable reading. As to the argument made by India, Pakistan and Thailand, the United States considered that, regardless of whether "all natural resources" were exhaustible, there could be no doubt that sea turtles were exhaustible. Indeed, as endangered species, they were nearly exhausted. Once a species was extinct, it was gone forever, just as oil from a well or ore from a mine. India, Pakistan and Thailand were simply wrong in stating that the term "exhaustible" was superfluous unless one somehow read "natural resources" to exclude biological resources. In the view of the United States, India, Pakistan and Thailand completely mischaracterized the Gasoline Panel Report by stating that it was "based on misplaced reliance on two prior panel reports" when finding that clean air was an "exhaustible natural resource". In fact, the Gasoline panel correctly cited to the Salmon/Herring and Tuna II Panel Reports. Contrary to the complainants' claims, both panels did find that renewable natural resources could be exhaustible under Article XX(g). [334] Moreover, the Gasoline Panel also relied on a plain reading of the text of Article XX(g). With regard to whether clean air was a "natural resource", the Panel explained that "clean air was a resource (it had value) and it was natural". With regard to whether clean air was exhaustible, the Panel explained that "it could be depleted". India, Pakistan and Thailand had no answer to this plain reading of the text of Article XX(g). Finally, India, Pakistan and Thailand's citation to the drafting history of Article XX(g) was completely unpersuasive. As an

[333] Appellate Body Report on Japan - Taxes on Alcoholic Beverages, adopted 8 November 1996, WT/DS8/11, WT/DS10/11, WT/DS11/8, p. 10.

[334] The United States referred to the Panel Report on Canada - Measures Affecting Exports of Unprocessed Herring and Salmon, adopted 22 March 1988, BISD 35S/98, paragraph 4.4 ("[t]he Panel agreed with the parties to the dispute that salmon and herring stocks are 'exhaustible natural resources' ... within the meaning of Article XX(g)"); Panel Report on United States - Restrictions on Imports of Tuna, not adopted, DS29/R, circulated 16 June 1994, paragraph 5.13 ("[t]he Panel noted that the United States maintained that dolphins were an exhaustible natural resource. The EEC disagreed. The Panel, noting that dolphin stocks could potentially be exhausted, ... accepted that a policy to conserve dolphins was a policy to conserve an exhaustible natural resource".)

initial matter, reliance on this supplementary aid to interpretation in order to context the plain meaning of the text was not warranted when, as here, Article XX(g) was not ambiguous. [335]

269. Aside from that, India, Pakistan and Thailand merely cited to certain "examples" or "illustrations" from the drafting history of Article XX(g) indicating that measures to be covered under Article XX(g) included those relating to minerals. But India, Pakistan and Thailand simply ignored other drafting history showing that Article XX(g) in fact was also intended to apply to biological resources. In particular, during the negotiation of the ITO Charter, the delegate from Australia questioned whether Article 25 (prohibiting quantitative restrictions) would prevent Australia from limiting exports of merino sheep. [336] The delegate explained that due to dire drought conditions, Australia had lost 20 million merino sheep, and was thus prohibiting exports. The Belgian delegate responded that regardless of the scope of Article 25, Australia's prohibition was allowed by the exception for exhaustible natural resources. [337] In short, the drafting history in fact refuted the complainants' argument that Article XX(g) was intended to be limited so as to exclude biological resources.

270. The United States further argued that Malaysia made a similarly flawed argument when contending that Article XX(g) had to be read to exclude animals because animals were explicitly included in Article XX(b), and Article XX(g) or Article XX(b) would thus be rendered superfluous. Just because in certain cases a single measure could fall under two or more paragraphs of Article XX(g), this in no way rendered meaningless a provision of the GATT 1994. Under the natural reading of Article XX(g) (which was to include animals as "exhaustible natural resources"), Articles XX(b) and XX(g) were not coextensive because they contained different requirements. Article XX(b) applied, for example, only to plants and animals, while Article XX(g) applied to all natural resources; Article XX(g) required that the measure be made effective in conjunction with restrictions on domestic production or consumption, while Article XX(b) did not; and Article XX(g) required that the natural resource be exhaustible, while Article XX(b) contained no such requirement for the plants and animals within its scope. The United States also noted that two of the third parties (the EC and Japan) expressly noted their disagreement with this unsupportable reading advocated by the complainants (see below paragraphs 4.33 and 4.52).

271. India, Pakistan and Thailand maintained that the term "exhaustible" should be interpreted as referring to finite, physical resources, such as minerals, which were depleted unit -for-unit as they were consumed. A distinction had to be drawn between resources that were necessarily "exhausted" as they were consumed and resources that were renewable, such as those that were biological. The protection of biological resources was within the scope of Article XX(b). If the term "exhaustible" were extended to include all natural resources, even those that were renewable, then the term "exhaustible" would be rendered superfluous. The United States did not show the Panel how its interpretation of the language of Article XX(g) avoided this result. Moreover, an interpretation of the term exhaustible to include biological resources ignored the structure of Article XX, which provided for a separate exception for measures necessary to protect the life or health of biological organisms (people, animals and plants). Finding that Article XX(g) encompassed biological organisms necessarily meant that the measures had to be scrutinized under two different standards, the "relating to" and the "necessary for" standards, and it was illogical to assume that such a result had been intended by the drafters. It was a fundamental rule of construction that every term or word in a treaty

[335] Vienna Convention, Article 32.

[336] E/PC/T/A/SR/40(1) (15 August 1947) and E/PC/T/A/PV/40(1) (15 August 1947).

[337] The United States noted that Article, 37(j) was the precursor of GATT Article XX(g).

should be given an independent meaning. The US argument that paragraphs (b) and (g) of Article XX were not coextensive and contained different conditions confirmed precisely the point made by the complainants. Indeed, why establishing different legal conditions for the same subject matter? If anything "necessary to" protect the "life" or "health" of sea turtles (or any other biological resource) could be done under Article XX(b), why was it necessary or desirable to create a separate set of conditions for the protection of those organisms under Article XX(g)? The answer could only be that the two provisions were never intended to cover the same subject matter. Therefore, the meaning that ought to be given to the term "exhaustible" was that, as outlined by the complainants, it referred to finite, physical resources, not to renewable resources such as those that were biological. This meaning preserved the separation of the subject matter of Articles XX (b) and (g), while giving concrete, independent meaning to the term that was consistent with the preoccupation of the drafters over the risks of untimely depletion of exhaustible mineral resources through unfettered exploitation and exportation.

272. The findings of the Gasoline Panel were not on point because the resource at issue in that case was not biological.[338] In addition, the Panel's reliance for its conclusion that renewable resources were within the scope of Article XX(g) on Herring/Salmon and the Tuna II Panel Reports was misplaced. In Salmon/Herring, there had been no dispute between the parties over whether the resource at issue was renewable and therefore not "exhaustible" and thus there was no decision by the Panel on this issue. In the Tuna II dispute, the EC disagreed with the United States' position that dolphins were an exhaustible natural resources based on an argument that dolphins were not commodities and therefore were not "resources".[339] Once again, the Panel did not have the opportunity to consider the question of whether a renewable resource qualified as an "exhaustible" resource. Finally, there was no evidence in the text of the Gasoline Panel Report that it considered the drafting history cited by India, Pakistan and Thailand. Therefore, there was ample basis for revisiting this issue.

273. Malaysia did not deny that sea turtles were an exhaustible natural resource, but contended that Article XX(g) was meant only for non living exhaustible natural resources whilst turtles, being living things, could only be considered under Article XX(b). Such an approach logically required that the interpretation to be ascribed to a measure under Article XX(g) could not be ascribed to a measure under Article XX(b) because it would make meaningless the systemic approach advocated by the Appellate Body in the Gasoline case.[340] Malaysia noted that previous GATT Panel Reports had held that fish (living) was an exhaustible natural resource.[341] However, these cases had been adjudicated before the entry into force of the WTO. The approach of the Appellate Body in the Gasoline case was to be preferred. Malaysia also noted that the United States misread the submissions presented by

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[338]India, Pakistan and Thailand noted that the finding of the Panel that clean air was an "exhaustible natural resource" was not appealed and therefore not addressed by the Appellate Body. See Appellate Body Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/9, p. 10.

[339]Panel Report on United States - Restrictions on Imports of Tuna, not adopted, DS29/R, circulated 16 June 1994, paragraph 3.52 ("The EEC replied that, although the United States and the EEC both agreed that dolphins were in need of conservation, this did not make them into an exhaustible natural resource. Since CITES ensured that there was no trade in dolphin species, one could question whether dolphins were resources in any economic sense of the term".)

[340]Appellate Body Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/9. Malaysia also referred to the Appellate Body Report on Japan - Taxes on Alcoholic Beverages, adopted 8 November 1996, WT/DS8/11, WT/DS10/11, WT/DS11/8.

[341]Panel Report on Canada - Measures Affecting Exports of Unprocessed Herring and Salmon, adopted 22 March 1988, BISD 35S/98; Panel Report on United States - Restrictions on Imports of Tuna, not adopted, circulated 3 September 1991, BISD 39S/155; Panel Report on United States - Restrictions on Imports of Tuna, not adopted, circulated 16 June 1994, DS29/R.

the EC and Japan on this point. In fact, the EC was merely of the view that sea turtles might be regarded as an exhaustible natural resource, whilst Japan merely did not challenge the US view that sea turtles were an "exhaustible natural resource" within the meaning of Article XX(g).

274. The United States noted that the complainants did not dispute that sea turtles were "exhaustible natural resources" as that term was normally used. Indeed, this point was beyond argument since sea turtles were listed in Appendix I of CITES as "species threatened with extinction which may be affected by trade." Each complainant was party to CITES. However, despite the plain meaning of the text, the complainants argued that "exhaustible natural resources" under Article XX(g) had to be limited to finite physical resources, such as minerals, which were depleted unit for unit. The United States urged the Panel to reject this interpretation which would violate a fundamental rule of treaty interpretation whereby the terms of a treaty should be interpreted in accordance with the "ordinary meaning to be given to the terms in their context and in light of its object and purpose". Nothing in the text or context limited Article XX(g) to measures involving the conservation of minerals. Contrary to what was claimed by the complainants, the inclusion of non-mineral resources in the scope of Article XX(g) in no way made the term "exhaustible" superfluous. Rather, it instructed the Panel to examine whether the natural resource subject to the conservation measure was "exhaustible" based on the facts of the particular case. Some natural resources, such as solar power, might not be exhaustible, Further, on the facts of this case, it was beyond dispute that sea turtles were exhaustible. Indeed, some species of sea turtles were on the brink of extinction. The analysis suggested by the United States had been followed in the Gasoline case, where the Panel had found that clean air was an exhaustible natural resource under Article XX(g). Contrary to the complainants' theory for limiting Article XX(g), clean air was not depleted unit-for-unit like a mineral resource. The new theory proposed by the complainants for limiting Article XX(g) to non-biological resources was, like the prior one, without any basis in the text of the Agreement.

275. The United States further argued that the ordinary meaning of the text of Article XX was that both paragraphs (b) and (g) covered biological organisms. This reading did not, as implied by the complainants, make Article XX(b) superfluous. Rather, although there was some overlap, the two provisions had a number of different requirements, and were not coextensive. For example, Article XX(g) required that the measure be made effective in conjunction with restrictions on domestic production or consumption, Article XX(b) did not; Article XX(g) required that the natural resource be exhaustible, Article XX(b) did not; and Article XX(g) applied to "conservation", while Article XX(b) applied to "protection of life and health". The complainants did not and could not point to any reason for departing from the ordinary meaning in order to avoid overlap between two Article XX provisions. Indeed, Article XX included other examples of overlapping provisions. For example, Article XX(c) applied to "gold and silver", and overlapped with Article XX(g), which applied to exhaustible natural resources. Should then gold and silver be excluded from the scope of Article XX(g)?

(ii) "Related to ..."

276. Recalling the arguments made in relation with Article XX(b), India, Pakistan and Thailand argued that, while the general purpose of Section 609 might have been to benefit sea turtles, the United States could not credibly contend that the objective of the embargo was to protect the lives of sea turtles. By providing only four months notice prior to implementation of the embargo against newly affected nations, the United States had required these newly affected nations to implement regulatory programs requiring 100 per cent TEDs use. This was done even though the foreign shrimp harvesters might not have had time to acquire TEDs and receive instruction on their use, and thus might not have been able to use them effectively. The United States itself had recognized that requiring use of TEDs with such little notice "will not result in any benefit to sea turtles in those

nations newly covered, because fishermen with no experience in TEDs use are not likely to be able to use them effectively in the near term to protect sea turtles". [342] Indeed, the United States had gone so far as to state that "[e]ven assuming the willingness of affected nations to comply with Section 609, a May 1, 1996, compliance date will achieve no conservation benefit". [343] In light of these and similar statements, the United States could not credibly argue that the policy behind the embargo was intended to conserve sea turtles. Moreover, as had been argued under Article XX(b), the legislative history of Section 609, pursuant to which the embargo was enacted, indicated that the purpose of the provision was to restrict imports. Furthermore, Section 609 was codified as a note and not as an amendment to the Endangered Species Act; it could be inferred from this that the purpose of the provision was something other than protection of endangered species.

277. India, Pakistan and Thailand further argued that the analysis made in the Tuna II Panel Report applied to this case. In Tuna II, the Panel had noted that the embargo at issue prohibited imports from a country of any tuna, whether or not the particular tuna was harvested in a way that harmed or could harm dolphins, as long as the country's tuna harvesting practices and policies were not comparable to those of the United States. The Panel had noted that the primary and intermediary tuna embargoes at issue were "taken so as to force other countries to change their policies with respect to persons and things within their own jurisdiction" and could achieve the desired effect only if followed by changes in policies and practices in exporting countries. [344] That is, the embargo could not conserve dolphins by itself; a conservation purpose could be achieved only if the foreign governments and foreign fishermen changed their policies and practices. The Panel had concluded that "measures taken so as to force other countries to change their policies, and that were effective only if such changes occurred, could not be primarily aimed at", and therefore did not "relate to", conservation of an exhaustible natural resource. [345] India, Pakistan and Thailand submitted that the shrimp embargo at issue in this case applied to any wild shrimp and shrimp products of nations that had not been certified as having a regulatory programme comparable to that of the United States, whether or not the shrimp was harvested in a way that harmed or could harm sea turtles. Further, the shrimp embargo was not a measure "relating to" the conservation of sea turtles because it was effective only if it forced other nations to change their policies and practices.

278. India, Pakistan and Thailand were of the view that, in order to be considered "related to" the conservation of sea turtles, the embargo had to be "primarily aimed at" the conservation of sea turtles. [346] In light of statements made by the United States to the Court of International Trade that the immediate implementation of the embargo against newly affected nations "would not result in any benefit to sea turtles", the embargo could not be said to be primarily aimed at the conservation of sea turtles. Rather, based on the litigation which occurred in the United States and the statements made by the United States Government during its defense, the conservation goal cited as justification for implementation of the embargo appeared to be incidental to the goals of implementing judicial

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[342] United States Court of International Trade, Earth Island Institute v. Warren Christopher, Memorandum in Support of Defendants' Motion for Modification of 29 December 1995, Order, p. 11.

[343] Ibid.

[344] Panel Report on United States - Restrictions on Imports of Tuna, not adopted, DS29/R, circulated 16 June 1994, paragraphs 5.23 and 5.24.

[345] Ibid., paragraph 5.27.

[346] Ibid., paragraph 5.22 (citing the Panel Report on Canada - Measures Affecting Exports of Unprocessed Herring and Salmon, adopted 22 March 1988, BISD 35S/98, paragraph 4.6).

interpretation of United States law, protecting the American shrimp industry, and of placating the demands of US environmental interest groups.

279. The United States argued that Section 609 as a whole clearly "relate[d] to" the conservation of sea turtles. Section 609(a) called for the negotiation of bilateral and multilateral agreements for the protection and conservation of sea turtles. Section 609(b) was intended to conserve and protect sea turtles by requiring that shrimp imported into the United States had not been harvested in a manner that would harm sea turtles. Shrimp trawl nets caused the greatest number of human-induced sea turtle deaths, accounting for more sea turtle deaths than all other human activities combined, and TEDs were highly effective in preventing such mortality. Thus, by calling for international agreements to protect and conserve sea turtles, and by requiring that shrimp imported into the United States had not been harvested in a manner that endangered sea turtles, Section 609 related to the conservation of sea turtles. The United States submitted that, in applying the "relating to" criterion of Article XX(g), the Appellate Body in the Gasoline case noted that the measure met this criterion because it had a "substantial relationship" to the conservation-related requirements of the measure, and was not "merely incidental or inadvertently aimed" at conservation. [347] The Appellate Body also accepted the participants' view that "relating to" could be interpreted as "primarily aimed at", although the Appellate Body also cautioned that "primarily aimed at" was "not itself treaty language" and was "not designed as a simple litmus test". [348] In any event, regardless of whether "relating to" was interpreted as "primarily aimed at" or as having a "substantial relationship", the United States measures met the "relating to" criterion.

280. India, Pakistan and Thailand maintained that the US measure did not "relate to" the conservation of exhaustible natural resources. Several panels found that the phrase "relate to" meant "primarily aimed at". [349] Further, although Appellate Body had noted in the Gasoline case that this language was not treaty language, it applied the same test in its analysis. [350] The United States argued that Section 609 as a whole clearly related to the conservation of sea turtles. However, Section 609 prohibited shrimp imports from non-certified countries whether or not the shrimp was caught with technologies that the United States considered to be "turtle-safe" (i.e. with TEDs). Moreover, while the evidence presented by the United States demonstrated that shrimp trawl nets caused the greatest number of turtle deaths from anthropogenic sources in US waters, the same was not true of sea turtle populations located outside the United States and specifically those located in the complainants' waters, Australia and other parts of Asia. Other forms of fishing and egg harvesting appeared to be the most significant anthropogenic threats to sea turtles in those areas of the world. By requiring the Members to expend significant sums on the deployment of TEDs in shrimp fisheries as a condition of access to the US market, the United States was diverting scarce resources from conservation measures that would in fact appear to be more effective in conserving sea turtles. India, Pakistan and Thailand stressed that, for the reasons developed in paragraph 3.251, the analysis made in the Tuna II Panel Report applied to this case.

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[347] Appellate Body Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/9, p. 18.

[348] Ibid., p. 17.

[349] Panel Report on Canada - Measures Affecting Exports of Unprocessed Herring and Salmon, adopted 22 March 1988, BISD 35S/98, paragraph 4.6; Panel Report on United States - Restrictions on Imports of Tuna, not adopted, DS29/R, circulated 16 June 1994, paragraph 5.21.

[350] Appellate Body Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/9, p. 18-19.

281. India, Pakistan and Thailand further noted that the Tuna II Panel Report found that a measure which could not achieve its conservation purpose without action being taken by other countries to modify their environmental policies bore no "substantial relationship" to the conservation of the natural resource. In this case, Section 609 did not "relate" to the conservation of sea turtles because no "substantial relationship" had been established between shrimp trawling and sea turtle mortality in the complainants' waters, not had it been shown that the installation of TEDs was, standing alone, an efficient means of increasing sea turtle populations. Moreover, this case was different from the Gasoline case where there was a direct connection between the baseline requirements and the conservation of clean air in the United States. In that case, the adherence to the baseline requirements would have the effect to produce clean air; thus, there was a substantial relationship between the measure in question and a policy of conservation. In this case, however, the shrimp embargo could not, by itself, have any direct effect on sea turtle conservation; preventing the importation of shrimp could not, by itself, increase the number of sea turtles in the world. Sea turtle conservation was only achieved if other nations implemented a change in their environmental policies and that change affected sea turtle mortality. An embargo on imports of steel or machinery, or indeed, all goods from affected nations, which was tied to a condition that foreign nations took steps to protect their sea turtle populations, would have the same effect on sea turtle populations that the measure at issue had.

282. In addition, India recalled that, in the Gasoline case, the Appellate Body noted that the baseline establishment rules at issue were designed to permit scrutiny and monitoring of the level of compliance and that without baselines of some kind, such scrutiny would not be possible. Without a baseline, the Gasoline Rule's objective of stabilizing and preventing further deterioration of the level of air pollution would be substantially frustrated. [351] The goals of Section 609, however, would not be substantially frustrated without the embargo. Indeed, as the United States itself noted:

> "[I]mplementation of the Court's order could also irreparably harm the efforts of the US government to protect endangered sea turtles from threats other than shrimping. Defendants have been working for several years toward development of a multilateral agreement for the protection of Sea Turtles (Spero Decl. at paragraphs 16 -17). This agreement would require nations to take a wide variety of measures for the benefit of sea turtles, including the protection of sea turtle habitat, strict control over harvest of sea turtles and their eggs, as well as the reduction of sea turtle mortality from fishing operations other than shrimping. (Id.) Nations which had previously cooperated with the United States in these efforts have reacted negatively to the imposition of the embargo that could result from this Court's order. These nations may have little desire to cooperate when faced with the immediate embargo required by the current court order, thus jeopardizing further negotiations for an international agreement to protect sea turtles from wider threats to the species' survival". [352]

While the United States had negotiated one regional agreement, India understood that this agreement was not yet in force. Moreover, the same effects discussed above could ripple into other US efforts to protect sea turtles. Thus, it could not be said that the US goal would be substantially frustrated without the embargo.

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[351] Ibid., p. 19.

[352] United States Court of International Trade, Earth Island Institute v. Warren Christopher, Memorandum in Support of Defendants' Motion for Modification of 29 December 1995, Order.

283. Recalling the Appellate Body findings in the Gasoline case[353], Malaysia argued that Section 609 was not "primarily aimed at" the conservation of sea turtles. "Primarily aimed at" implied a substantial relationship between the measures under Section 609(b) and the conservation of sea turtles; it was up to the United States to demonstrate the existence of this substantial relationship, and to prove that the measure was not incidentally or inadvertently aimed at conservation. The United States failed to show such requirements. Malaysia was of the view that there was no such substantial relationship in this case, because, unlike the baseline establishment rules, which represented the benchmark for determining the level of compliance of importers and blenders with the non-degradation requirements, the use of TEDs was not the only method in preventing turtle mortality. This fact was recognized in the 1982 UN Convention on the Law of the Sea (UNCLOS), and the 1995 Agreement for the Implementation of the Provisions of UNCLOS Relating to the Conservation and Management of Straddling Stocks and Highly Migratory Fish Stocks. These agreements made reference to the use of selective, environmentally safe, cost-effective fishing gear but did not make specific mention to the use of TEDs. Furthermore, Malaysia had repeatedly shown that shrimp trawl nets were not the greatest cause of human-induced sea turtle deaths in Malaysia. Hence, there was no substantial relationship between the measures under Section 609 and the conservation of sea turtles. Malaysia recognised that Section 609(b) provided for the imposition of an import prohibition on the importation of shrimp or shrimp products harvested with commercial fishing technology which might adversely affect the conservation and protection of five species of sea turtles. However, the US Congressional Records indicated that the intention behind Section 609 was not primarily aimed at the conservation of sea turtles as the use of TEDs was not the most effective method or the best solution for the conservation of sea turtles. Thus the measures at issue could not come within the ambit of Article XX(g).

284. The United States maintained that Section 609 as a whole clearly "relate[d] to" the conservation of sea turtles. As the Appellate Body explained in the Gasoline case, this criterion was met where there was a "substantial relationship" between the measure and the conservation of an exhaustible natural resource, and where the measure was not "merely incidentally or inadvertently aimed" at conservation.[354] In this case, the United States had shown a substantial relationship between its measures under Section 609(b) and the conservation of sea turtles. Shrimp trawl nets were the greatest cause of human -induced sea turtle deaths, accounting for more sea turtle deaths than all other human activities combined. TEDs were highly effective in preventing such mortality. By requiring that US imports of shrimp found in regions inhabited by sea turtles were harvested with TED-equipped trawl nets, or by other gear that did not harm sea turtles, the United States was ensuring that its importation of shrimp did not further endanger sea turtles. The relationship between the measures and the goal was clear, direct and substantial. By requiring that shrimp imported into the United States be harvested in a manner not harmful to sea turtles, the US measures were an important step in promoting sea turtle conservation.

285. The United States further argued that the argument made by the complainants that human activities other than shrimp trawling were a greater cause of sea turtle mortality in their waters missed the point. The US measures "relate[d] to" sea turtle conservation regardless of whether other types of conservation measures would also contribute to the protection of sea turtles. Article XX(g) only required that a measure "related to" conservation of an exhaustible natural resource, but did not require that a measure address each and every threat to such resource. The United States questioned whether the complainants would be any more satisfied if the US measures were extended to apply to

[353] Appellate Body Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/9, p.18-19.

[354] Ibid., p. 20.

fish, as well as shrimp, harvested in a manner harmful to sea turtles. Second, the reference made by India, Pakistan and Thailand to Tuna II that a measure could not be "related to" conservation if, to be effective, a foreign government had to change its policies was not supported by the text of the Agreement. Such a restrictive interpretation was moreover inconsistent with the reasoning of the Appellate Body in the Gasoline case. Nothing in the text of the GATT indicated that the issue of whether a measure was "related to" conservation depended on whether the measure entailed policy changes by governments, exporters or producers. In essence, the three complainants raised an issue regarding the means by which the measure met the goal of conserving an exhaustible natural resource. However, the GATT addressed such issues in the chapeau, and not in the text of Article XX(g). In particular, the chapeau required that measures should not be applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination.

(iii) "In conjunction with ..."

286. India, Pakistan and Thailand submitted that the United States had not demonstrated that the measure at issue was made effective in connection with restrictions on domestic production or consumption. As noted by the Appellate Body in the Gasoline case, this prong referred "to governmental measures being promulgated or brought into effect together with restrictions on domestic production or consumption of natural resources". Specifically, the Appellate Body stated that the language was a "requirement that the measures concerned impose restrictions, not just in respect of [the imported product] but also in respect to [the domestic product]". Thus, the Appellate Body had concluded that the clause was a requirement of even -handedness.[355] However, for India, Pakistan and Thailand, restrictions imposed on domestic and foreign shrimp trawlers had not been imposed even-handedly. While domestic shrimp trawlers had been given a ten -year phase-in period before restrictions were placed on their access to the US market, the embargo had been imposed on the newly affected nations with only four months notice. The manner in which the embargo had been implemented thus provided US shrimp harvesters with a competitive advantage over foreign harvesters. While the United States required both domestic and foreign harvesters to use TEDs, these measures were not "promulgated or brought into effect together".

287. The United States argued that Section 609 was "made effective in conjunction with restrictions on domestic production or consumption". The Appellate Body interpreted this criterion to mean that the measures concerned imposed restrictions not just on the imported product but also with respect to the comparable domestic product.[356] This test was met here. The United States required its shrimp trawl vessels that operated where there was a likelihood of intercepting sea turtles to use TEDs at all times, and Section 609 applied comparable standards to imported shrimp. The Appellate Body also stated that the "made effective in conjunction with" requirement was a requirement of "even-handedness", although there was no textual basis for identical treatment of domestic and imported products.[357] Again, Section 609 met the test. The statute allowed any nation to be certified - and thus to avoid any restriction on shrimp exports to the United States - if it met criteria for sea turtle safety in the course of shrimp harvesting that were comparable to criteria applicable in the United States. For those nations whose shrimp trawl vessels operated in areas where there was a likelihood of intercepting sea turtles, Section 609 allowed for certification if such nations adopted TEDs requirements comparable to those in effect in the United States.

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[355]Ibid., p. 20.

[356]Ibid., p. 19.

[357]Ibid., p. 19.

288. The United States considered that the argument made by India, Pakistan and Thailand was based on a misunderstanding of both the relevant facts and of the proper application of Article XX(g). First, United States shrimpers had not been given a "10-year" period in which to comply with TEDs regulations. While it was true that approximately 10 years had elapsed between the time that the United States Government had first begun seeking ways to reduce sea turtle mortal ity in shrimp trawl nets in 1978 and the time that the first regulations had been promulgated requiring the use of TEDs in 1987, this time could hardly be considered a "grace period" for US shrimpers during which foreign exporters of shrimp to the United States had been somehow disadvantaged. Indeed, to the extent that the US TEDs requirements could be seen as imposing any competitive disadvantage, that disadvantage had been borne by US shrimpers for several years, not those from the complainants. As noted, the 1987 TEDs regulations went into full effect in 1990. Since then, TEDs requirements in the United States had become ever stricter. By contrast, Section 609 was applying to imports of shrimp from the complainants only since 1 May 1996. By the mid-1990's, moreover, the design of TEDs had become extraordinarily advanced in terms of turtle protection (97 per cent effective) and shrimp retention (virtually no shrimp lost). Due to the considerable efforts of the United States and other governments, TED technology was also inexpensive and readily available at that time. Thus, by the time that Section 609 became applicable to the complainants, they were able to reap the benefits of the research and development that the United States had been undertaking on TED technology for many years.

289. Secondly, the United States argued that India, Pakistan and Thailand were correct in citing to the statement in the Gasoline Appellate Body report that the "in conjunction with" clause of Article XX(g) generally required "even-handedness" in the imposition of restrictions. But the complainants had left out the Appellate Body's admonition that "[t]here is, of course, no textual basis [in Article XX(g)] for requiring identical treatment of domestic and imported products". In any event, none of the complainants had experienced anything less than even-handed treatment as a consequence of the application of Section 609 to their shrimp imports. Section 609 sought to apply the comparable standards of turtle protection to imported shrimp as to domestic shrimp. To the extent that there was any difference in those standards, US shrimpers were subject to stricter standards than shrimpers from other nations, and had been subject to those standards for much longer. The United States recognized that the period between 29 December 1995 (when the US Court of International Trade ruled that Section 609 applies on a worldwide basis) and 1 May 1996 (when that ruling took effect) was five months. The complainants were correct that the US Administration unsuccessfully sought a one-year delay in the effective date of that ruling. At the same time, the United States undertook considerable efforts to assist the complainants and other nations newly affected by the ruling toward the prompt adoption of TEDs programmes. Thailand, with one of the world's largest shrimp fleets, had been able to adopt a comprehensive TEDs programme quickly.

290. India, Pakistan and Thailand maintained that the embargo, or for that matter, Section 609, had neither been promulgated with nor brought into effect with restrictions on domestic production or consumption. As discussed above, restrictions had first been placed on domestic production, and then, several years later, on the initially affected -nations, and finally, several years later and with only four months notice, on the newly -affected nations. Thus, while US laws and regulations now required TEDs use by both initially -affected nations and newly -affected nations, they had not been promulgated or brought into effect with regulations on US domestic consumption. Moreover, the US measures did not meet the "even -handedness" requirement established by the Appellate Body for purposes of interpreting the "made effective with" requirement of Article XX(g). One reason for this was the disparity in time provided by the United States for US shrimpers, shrimpers from initially-affected nations and shrimpers from newly -affected nations to comply with the TEDs requirement. US shrimpers had been given ten years (or, at least seven if the time during which the

US voluntary TEDs programme was in effect excluded) to implement a TEDs requirement. The initially-affected nations had been permitted several years to establish and implement TEDs requirements. However, India, Pakistan and Thailand and the other newly -affected nations had been required to have TEDs requirements in place within four months, or lost access to the US market.

291. India, Pakistan and Thailand explained they were not suggesting that there needed to be identical treatment of domestic and imported products. However, the difference in time allowed to phase-in the TEDs requirement clearly disadvantaged the newly -affected nations in very substantial terms. As the United States itself had recognized in statements before the Court of International Trade, four months was not long enough to change domestic regulations, outfit an entire fleet with TEDs and train shrimpers in TEDs use so that such use would be both effective and minimize loss of catch. Advances in TEDs design were hardly sufficient to make up for the severe disadvantages imposed on the newly affected nations by the very short phase -in of the embargo. The haste with which Thailand had been forced to adopt a universal TEDs requirement led to considerable additional cost, waste, uncertainty and disruption. Thailand's current and continuing problem with loss of catch highlighted the problems caused by implementing a TEDs requirement over such a short period of time. The US claim that such disparate treatment did not violate the even-handedness requirement because of advances in TEDs technology was belied by statements made by the United States in the course of US domestic litigation, and by the actual experience of TEDs use in both the United States and Thailand, which showed considerable difficulty in using TEDs effectively without substantial loss of catch.

292. Malaysia submitted that the United States had not satisfied the requirement of "even-handedness" spelled out by the Appellate Body Report.[358] The requirement that the measure concerned imposed restrictions on both imported and domestic gasoline was correct because if such restrictions were not equally imposed then the objective of the Clean Air Act could not have been achieved. However, in the case at hand, exports of shrimp to the United States from countries which did not use TEDs would not result in the depletion or even extinction of sea turtle populations in the United States. Section 609 allowed any nation to be certified if it met the criteria for sea turtle safety in the course of shrimp harvesting that were comparable to criteria applicable to the United States. It was Malaysia's view that the criteria for certification was subjective and arbitrary as the United States was ultimately to decide whether a nation's scientific study was credible or not, and would evaluate any information that a nation submitted in support of claims that sea turtles were not present in shrimping grounds or that shrimping operations did not harm sea turtles. Furthermore, countries were subject to yearly review, which created uncertainty and was disruptive to trade.

293. The United States argued that the Appellate Body interpreted the criterion "made effective in conjunction with restrictions on domestic production or consumption" to mean that the measures concerned imposed restrictions not just on the imported product but also with respect to the comparable domestic product.[359] The Appellate Body also stated that this requirement was one of "even-handedness", and that there was no textual basis for identical treatment of domestic and imported products.[360] Section 609 met these tests. The United States required its shrimp trawl vessels that operated where there was a likelihood of intercepting sea turtles to use TEDs at all times. Section 609 applied comparable standards to imported shrimp. The statute allowed any nation to be

[358]Appellate Body Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/9.

[359]Ibid., p. 19.

[360]Ibid., p. 19.

certified - and thus to avoid any restriction on shrimp exports to the United States - if it met criteria for sea turtle safety in the course of shrimp harvesting that were comparable to criteria applicable in the United States. In particular, for those nations whose shrimp trawl vessels operated in areas where there was a likelihood of intercepting sea turtles, Section 609 allowed for certification if such nations adopted TEDs requirements comparable to those in effect in the United States. In short, the US measures were even-handed as between domestic shrimp production and the shrimp production of the complainants. Complainants' argument that the measures at issue were not made effective "in conjunction with" US domestic TEDs requirements because the United States had adopted the domestic requirements first would, if adopted, be harmful to environmental goals and the world trading system alike. If this suggestion were to become the rule, any country adopting a domestic environmental measure would have little choice but to simultaneously impose the measure internationally, even if uncertain of the need to do so. Otherwise, the country would be forever barred from adopting a measure falling within the scope of Article XX. Nothing in the GATT led to this absurd result.

(e) Chapeau of Article XX

294. India, Pakistan and Thailand submitted that, under the chapeau of Article XX, the United States bore the burden of establishing that the embargo had not been applied in a manner which had resulted in arbitrary and unjustifiable discrimination between Members and was not a disguised restriction on international trade. [361] India, Pakistan and Thailand were of the view that the United States would not be able to establish these requirements. While, as currently written, the embargo applied equally to all Members, a review of the history of the import restrictions established that the newly affected nations, including India, Pakistan and Thailand, had been given substantially less notice than other countries before being forced to comply with TEDs use. While the initially affected nations had been given three years to phase in the requirement of 100 per cent TEDs use, during which period they were permitted to continue exporting shrimp to the United States regardless of the method of harvest, the newly affected nations had been given only four months notice before being subject to the embargo following the CIT's 29 December 1996 Order. Moreover, the relevant US authorities were fully aware that four months was an inadequate period of time in which to outfit the newly affected nations' fleets with TEDs or to train shrimp fishermen to use the equipment properly. Thailand, for instance, which had expended significant time and resources in the installation and implementation of its own Thai Turtle Free Devices, could not be certified by the 1 May 1996 deadline and therefore was subject to the embargo, while many of the initially affected nations were not. Thus, the embargo had been applied in a manner that resulted in arbitrary or unjustified discrimination among nations and was a disguised restriction on trade.

295. India, Pakistan and Thailand further argued that, while the United States also required 100 per cent TEDs use by US shrimp trawlers in the Atlantic Area and Gulf Area, this requirement had been gradually implemented over a period of approximately 10 years. The United States thus had not required its own shrimp harvesters to use TEDs within a period of just four months. A similar situation had been explored by the Appellate Body in the Gasoline dispute. In finding that the Gasoline Rule at issue did not meet the requirements of the chapeau of Article XX, the Appellate Body stated as follows:

> "Clearly, the United States did not feel it feasible to require its domestic refiners to incur the physical and financial costs and burdens entailed by immediate compliance with a statutory baseline. The United States wished to give domestic refiners time to restructure their

[361] Ibid., p. 22.

> operations and adjust to the requirements in the Gasoline Rule. This may very well have constituted sound domestic policy from the viewpoint of the EPA and US refiners. At the same time we are bound to note that, while the United States counted the costs for its domestic refiners of statutory baselines, there is nothing in the record to indicate that it did other than disregard that kind of consideration when it came to foreign refiners". [362]

Consistent with this line of reasoning, a regulatory scheme which had been applied so as to suddenly prohibit importation of shrimp and shrimp products of certain nations unless they met standards that the United States and other nations had been given years to meet constituted arbitrary and unjustifiable discrimination between countries. It further demonstrated that the application of the embargo had resulted in arbitrary or unjustified discrimination between Members and was a disguised restriction on trade. It was clear that while the United States had carefully considered the costs associated with requiring the United States shrimp fleet to use TEDs, such costs had not been taken into account with respect to the newly affected nations. Therefore, the embargo did not meet the requirements of the chapeau of Article XX.

296. India, Pakistan and Thailand recalled the legislative history of Section 609 which, in their view, further supported the conclusion that the embargo was a disguised restriction on trade. As previously noted, several United States legislators discussed the embargo in terms of the competitive position of the US shrimp industry. In light of this fact, the United States could not demonstrate that the measure was consistent with the chapeau of Article XX.

297. Malaysia submitted that the chapeau of Article XX was concerned with the manner in which that measure was applied, and not with the measure itself. In the event that the Panel in this case was of the view that the measures taken by the United States were consistent with any of the exceptions under Article XX (which Malaysia did not admit) Malaysia submitted that the Panel had to examine the chapeau to Article XX. In the Gasoline case, the Appellate Body held that "disguised restriction" included disguised discrimination on international trade. [363] In that case, there was more than one alternative course of action available to the United States in promulgating regulations implementing the Clean Air Act; these included the imposition of statutory baselines without differentiation as between domestic and imported gasoline. This approach, if properly implemented, could have avoided any discrimination at all. The Appellate Body therefore found that the United States had not pursued the possibility of entering into cooperative arrangements with the governments of Venezuela and Brazil or, if it had, not to the point where it encountered governments that were unwilling to cooperate. With respect to this proceeding, the fact that Malaysia had been allowed only a period of three months to comply with the US requirements as compared to the three years given to the fourteen countries in the wider Caribbean region amounted to an unjustifiable discrimination.

298. Malaysia observed that Section 609 had two relevant parts. Section 609(a) provided for the alternative course of action which was the collective effort among countries to conserve sea turtles. Section 609(b) provided for the imposition of the import prohibition. The United States should first exhaust the option under Section 609(a) before resorting to the import prohibition under Section 609(b). In that regard, the United States had not demonstrated that it had exhausted all the options under Section 609(a). Therefore the import prohibition constituted a disguised restriction on international trade. Furthermore, Malaysia submitted that the United States intended to ensure that its domestic shrimp industry would not be unnecessarily disadvantaged. This was evident from the US

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[362] Ibid., p. 28.

[363] Ibid., p. 25.

Congressional Records stating that Section 609 needed to be enacted to complement domestic legislation[364] to level the playing field for the US domestic shrimpers. If Section 609 had not been enacted, it would have resulted in the US domestic shrimpers suffering a competitive disadvantage as compared to foreign shrimpers. This was also a form of disguised restriction on international trade.

299. Malaysia noted that the United States had not taken into account the actual situation of Malaysia when it listed Malaysia as falling within Section 609. Malaysia was a nesting ground, but was not known for being a feeding ground for sea turtles. This distinction was of prime importance because sea turtles immediately left to their feeding ground after nesting. The nesting season in Malaysia did not overlap with the shrimp trawling season, whereas the United States was both a feeding and nesting ground for sea turtles. It was therefore appropriate to require trawlers to use TEDs in the United States because there was an interaction between the turtles and the trawlers during the shrimping season. Malaysia therefore submitted that the omission by the United States to establish Malaysia's status as a feeding ground before imposing the import prohibition was an unjustifiable discrimination. The application of the import prohibition was therefore clearly a disguised restriction on trade.

300. Malaysia noted that the Declaration on Permanent Sovereignty over Natural Resources of 14 December 1962 (UNGA Resolution 1803 XVII) proclaimed that "the right of peoples and nations to permanent sovereignty over their natural wealth and resources" was protected and the permanent right of every state to dispose of its natural wealth and resources should be respected in accordance with their national interest. The concept of permanent sovereignty had not prevented international law from treating conservation issues within a state's territory as a question of common concern in which the international community possessed a legitimate interest. Treaties such as the 1972 World Heritage Convention, the 1973 CITES Convention, the 1979 Berne Convention on the Conservation of the European Wildlife, the 1968 African Convention on the Conservation of Nature and the 1985 ASEAN Convention on the Conservation of Nature and Natural Resources exemplified this point. Migrating species such as sea turtles fell under shared natural resources. A succession of the United Nations General Assembly resolutions had recognized the general principle that states did not have unlimited sovereignty with regard to shared resources. In 1973, UNGA Resolution 3129 XXVIII called for adequate international standards for the conservation and utilization of natural resources common to two or more states to be established, and affirmed that there should be cooperation between states on the basis of information exchange and prior consultation. Article 3 of the 1974 Charter of Economic Rights and Duties of States (UNGA Resolution 3281 (XXIX)) provided that in the exploitation of natural resources shared by two or more countries, each state had to cooperate on the basis of a system of information and prior consultation in order to achieve optimum use of such resources without causing damage to the legitimate interests of others.

301. Malaysia was of the view that international law therefore only allowed the conservation of shared natural resources on a cooperative basis and not unilaterally. Malaysia therefore submitted that since Section 609 allowed the United States to unilaterally take actions to conserve a shared natural resource it was therefore in breach of the sovereignty principle under international law. The sovereignty principle was a norm of jus cogens for which no derogation was permitted. No nation had a right under international law to impose on a fishing vessel owned by a Malaysian national fishing in Malaysian waters any requirement other than that imposed by Malaysian law. To do otherwise would be contrary to international law, and GATT being a branch of international law was governed by the fundamental norms of international law. Malaysia further submitted that GATT could not subsist on its own and was still subject to principles of public international law. This

[364]Endangered Species Act, 1973 and the Regulations thereunder.

principle was recognised in Article 3.2 of the DSU which provided that the DSB should "clarify the existing provisions of the [covered agreements] in accordance with customary rules of interpretation of public international law". The application of the import prohibition was therefore a disguised restriction on international trade.

302. The United States argued that the measures relating to imports of shrimp, as required by Section 609 and implemented on the basis of US Department of State Guidelines, were carefully and justifiably tied to the particular conditions of each country exporting shrimp to the United States and, thus, were not applied in a manner that constituted a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevailed. In particular, the criteria for certification under Section 609 were finely tailored to conditions in the exporting country's shrimp fishery. For example, all nations having shrimp fisheries only in cold waters, where there was essentially no risk of taking sea turtles, were certified under Section 609. [365] All nations whose shrimp vessels only harvested shrimp by the use of small-crewed, manually-retrieved nets - means which were highly unlikely to result in high sea turtle mortality - were certified under Section 609. [366] And all nations which had adopted turtle conservation programmes comparable to the US programme, including requirements for the use of TEDs in waters where there was a likelihood of intercepting sea turtles, were certified under Section 609.[367] In sum, the United States had diligently applied Section 609 in a manner that related to exporting countries based on specific and reasonable criteria tightly tied to the goal of conserving sea turtles.

303. Nor were the measures of the United States a "disguised restriction on international trade". In fact, the evidence was overwhelming that United States' sea turtle conservation measures under Section 609 were not some artifice intended to protect the US fishing industry. As reflected by the inclusion of sea turtles in CITES Appendix I, the international community had made the commitment to protect and conserve sea turtles. By virtue of the 1982 United Nations Convention on the Law of the Sea and UNCED Agenda 21, the international community had made the commitment to minimize by-catch of non-target species (including endangered sea turtles) in fishing operations. And, as illustrated by Inter-American Convention on the Protection of Sea Turtles, there had recently developed a specific, multilateral standard requiring the use of TEDs by shrimp trawl vessels in waters where there was a risk of intercepting sea turtles. The strong and growing international consensus regarding sea turtle conservation and the mandatory use of TEDs belied any claim that the US measures encouraging the use of TEDs were some sort of disguised restriction on trade. In addition, the United States had made extensive efforts to disseminate TEDs technology worldwide, including to shrimp fishermen of the complainants. The success of these efforts was shown by the fact that 18 nations had adopted TEDs requirements, including Thailand. The successful efforts of the United States to disseminate TEDs technology rebutted any claim that Section 609 was a disguised restriction on trade, since the United States would hardly be spending resources on helping other countries meet US standards relating to the importation of shrimp if the United States' motivation was to protect US domestic production.

304. Furthermore, as recognized by the complainants, Section 609 had become applicable to them as a result of a decision by the US Court of International Trade in a case brought by environmental and conservation groups. These groups pursued the application of Section 609 not because it would

[365]The United States noted that 16 nations were currently certified under this criterion.

[366]The United States noted that 8 nations were currently certified under this criterion.

[367]The United States noted that 19 nations were currently certified under this criterion.

protect domestic production but because it would conserve and protect sea turtles. Section 609 also was narrowly crafted to affect imports of shrimp harvested in ways that were harmful to sea turtles. Section 609(b) did not apply to all shrimp. Shrimp harvested in ways that did not harm turtles (such as shrimp harvested by aquaculture, shrimp caught with a wide variety of gear that did not kill turtles, and shrimp harvested in cold or fresh water) were completely outside the scope of Section 609(b). The United States noted that the large majority of shrimp harvested by each of the complainants, and by many other nations, was aquaculture shrimp. Had the United States intended to adopt a disguised restriction on trade in shrimp, Section 609 would not be so narrow in its scope. Finally, the US measures at issue in this case had not disrupted the level of imports of shrimp into the United States. Since 1 May 1996, when these measures became applicable to the complainants and to other nations outside the Wider Caribbean/Western Atlantic region, total US imports of shrimp had remained essentially constant and the price of imported shrimp had declined. If Section 609 were in fact a disguised restriction on trade, one would expect substantially reduced imports and higher prices.

305. The United States further argued that none of the arguments advanced by India, Malaysia, Pakistan and Thailand supported a finding that US measures under Section 609 somehow failed to meet the requirements of the Article XX chapeau. The four complainants' argument that they were allowed only three to four months to comply with US requirements under Section 609, while the Wider Caribbean/Western Atlantic countries were allowed three years was not factually accurate. Section 609 applied to shrimp harvested in the Wider Caribbean/Western Atlantic region as of 1 May 1991. It was true that the initial State Department Guidelines allowed those countries to phase in the use of TEDs over three years, so long as they met specific progress toward a comprehensive TEDs programme along the way. But the phase-in for these nations was justified in light of the fact that, at that time (1991-1994), TED technology was neither as well-developed nor as readily available, especially for developing countries. By the mid-1990's, i.e. by the time Section 609 had become applicable to shrimp harvested in the complainants' countries, extraordinarily effective TEDs were both inexpensive and easily available, making the adoption of TEDs programs considerably more feasible. Indeed, as noted, Thailand had adopted such a programme with great speed.

306. The United States submitted that Malaysia failed to point out how the different periods between notice and compliance for different nations, in practice, had had any effect on Malaysia. Malaysia provided no indication that it ever intended to adopt a TEDs requirement. Thus, with respect to Malaysia, the time allowed for compliance with Section 609 was simply not relevant. Regarding Malaysia's argument that US measures under Section 609 constituted a disguised restriction on international trade because the United States had not exhausted all collective efforts among countries to conserve sea turtles, the United States recalled that Article XX(b) did not include an "international cooperation" requirement, and the same held true for the Article XX chapeau. Furthermore, the United States in fact had approached Malaysia concerning the negotiation of a sea turtle conservation agreement, and had not received a positive response.

307. The United States also rejected Malaysia's argument that the legisl ative history of Section 609 showed that the statute was intended to benefit US shrimp fisherman, and that this intent constituted a disguised restriction on international trade was based on unidentified legislative history. The shortest answer to this argument was that the legislative history of Section 609, as well as the practice of the United States in certifying nations under Section 609 and disseminating TEDs technology, completely rebutted any argument that Section 609 was a pretence intended to benefit US shrimp fishermen. Malaysia failed to provide any support for its proposition that international law only allowed the conservation of shared natural resources on a cooperative basis, and not unilaterally. It merely referred to a UN resolution advocating cooperation in the exploitation of shared natural resources; Malaysia cited to nothing which indicated that a country should not take measures to conserve natural resources outside its jurisdiction. And indeed, as noted above, Malaysia was a party to CITES, and

was obligated for conservation purposes to take trade measures against all countries, even those not a party to CITES. Thus, CITES rebutted Malaysia's contention that conservation measures under international law must be taken on a "cooperative basis". Other multilateral agreements cited in paragraphs 3.192 and 3.193 similarly served to rebut Malaysia's contention regarding principles of international law. Finally, the United States noted that Malaysia could not cite a single source of international law that directly stated its supposed general principles regarding sovereignty. Therefore, the implied limitations advocated by Malaysia, based on purported general principles of international law, should be disregarded, and the Panel should not depart from the text of the GATT. Similarly, Malaysia cited no international agreement providing that countries had to cooperate in taking trade measures aimed at the conservation of shared natural resources. Multilateral environmental agreements exhorted countries to cooperate, but exhortations did not reflect a shared international consensus that cooperation was a required precondition for the adoption of trade measures. In fact, the very instruments cited by the four complainants showed that cooperation was not a requirement.

308. India, Pakistan and Thailand maintained that the US measures had been applied in a manner which constituted arbitrary and unjustifiable discrimination because the US provided longer phase-in periods for domestic shrimpers and for initially affected nations vis-à-vis the newly-affected nations. While allowing longer phase-in periods for domestic shrimpers could have constituted wise domestic policy, the United States had not provided equal consideration to the costs associated with immediate application of the TEDs requirement to newly-affected nations. Such discrimination was in fact specifically recognized by the US government during the litigation before the Court of International Trade. In light of these facts, this Panel should conclude that the US measures constituted unjustifiable discrimination and a disguised restriction on trade. The US attempted to suggest that its discriminatory application of the TEDs requirement was somehow justified because of the difference in available TEDs technology. First, as the complainants had demonstrated, TEDs were not "inexpensive" for their respective fishermen. Moreover, the claim that TEDs approved by the United States were "extraordinarily effective" was belied by recent tests and the high levels of stranding which had occurred in the United States in recent years. Finally, India, Pakistan and Thailand noted that in arguments made before the US Court of International Trade, the United States had cited many reasons why newly-affected nations would have difficulty meeting the four month deadline, including the lack of time to provide significant training and practice in the construction, installation and maintenance of TEDs and the limited funding for the adoption of a TEDs programme. India, Pakistan and Thailand noted that the United States attempted to dismiss the importance of the statements made during the domestic litigation by stating that the issue before the US Court of International Trade was timing. However, there was no factual basis for this differentiation which had resulted in the measures being applied so as to constitute a means of arbitrary and unjustifiable discrimination and a disguised restriction on trade.

309. Regarding the interpretation of the phrase "where the same conditions prevail", India, Pakistan and Thailand noted that the Appellate Body in the Gasoline case accepted the views of the parties that the phrase referred to comparative conditions in the exporting country and in the importing country maintaining the measure in dispute and as between exporting countries. [368] India, Pakistan and Thailand believed that this was the correct interpretation of the phrase and had demonstrated that the measures at issue unjustly and arbitrarily discriminated between the newly-affected countries and the initially affected countries and between the newly-affected countries and the shrimp industry in the United States. Further, India, Pakistan and Thailand believed that the phrase meant that similarly-situated countries had to be treated equally. For example, while the

[368] Appellate Body Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/9, p. 23-24.

complainants did not concede that it was legitimate to distinguish between nations based on whether or not they had adopted a production method forced upon them by another Member, this clause made clear that if the United States were to permit entry of shrimp from one certified nation, but to deny entry of shrimp from other certified nations, such action would constitute discrimination between countries in which the same conditions prevailed. In short, to the extent that the fact of certification was legitimate and constituted "the same conditions", certified countries were to be treated equally. In the dispute before the Panel, all certified nations had not been treated equally. Specifically, Thailand had been arbitrarily and unjustifiably discriminated vis-à-vis other certified nations because, without any basis, Thailand had not been given the same opportunity as the initially -affected nations to become certified without disruption of trade.

310. India, Pakistan and Thailand did not agree that Section 609 was narrowly crafted to affect imports of shrimp harvested in ways that were harmful to sea turtles. First, as applied, Section 609 prohibited the entry of shrimp caught using TEDs from non -certified countries. Further, Section 609 currently allowed for the importation of shrimp caught using soft -TEDs, even though soft-TEDs had been found to be ineffective at excluding sea turtles. How such shrimp was captured in manner which was any less harmful to sea turtles than simply not using a TED was not clear. [369]

311. Pakistan added that, by refusing to certify Pakistan even though 8 other countries harvesting wild shrimp by manual means had been certified, the US measures had been applied in a manner which constituted a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevailed and a disguised restriction on international trade. In addition, the distinction made by the United States between so-called "cold-water" shrimp fisheries and "warm-water" shrimp fisheries constituted arbitrary and unjustified discrimination where the same conditions prevailed and a disguised restriction on trade. For example, one of the species of sea turtle which did occur in US waters ranged as far north as Canada, yet Canada had been certified as one of the 16 nations that had "shrimp fisheries in only cold waters whether there was essentially no risk of taking sea turtles". Even if the United States had some evidence that its shrimpers along the northern Atlantic coast did not encounter sea turtles often, it was not clear that the same evidence existed with respect to the cold-water shrimp fisheries of other nations. At the very least, such nations should be required to provide the same type of evidence as the nations with warm-water shrimp fisheries that claimed that their shrimp trawl fisheries did not take place in areas where sea turtles occurred.

312. Malaysia argued that the agreements referred to by the United States in paragraph 3.277 made reference to the fact that States had to ensure through proper conservation and management measures that the maintenance of living resources was not endangered by over -exploitation and by the use of selective, environmentally safe and cost -effective fishing gear, but did not mention the use of TEDs specifically. These agreements did not in any way fortify the US claim that Section 609 was a measure intended to conserve sea turtles and was not a disguised restriction on international trade. The Inter-American Convention on the Protection of Sea Turtles pro vided that parties to the regional agreement had to take appropriate and necessary measures in accordance with international law and on the basis of the best available scientific evidence. This included, inter alia, the reduction of the incidental taking of sea turtles in the course of fishing activities through, for instance, the development and use of appropriate gear, including TEDs. However there were still countries which had not recognised the use of TEDs. This factor also did not further the US contention that Section 609 was not a disguised restriction on international trade. Malaysia refuted the US contention that the dissemination of TEDs technology rebutted any claim that Section 609 was a disguised restriction on

[369] India, Pakistan and Thailand noted that the United States also argued that the fact that the US litigation involved environmental groups demonstrated that Section 609 was not a disguised restriction on trade. While the complainants would not quibble with the relevance of this point, they would note that one of the parties to the legal action in question was the Georgia Fishermen's Association, Inc.

trade. Malaysia had not gained from the United States in this regard, save for a regional workshop organised by the Thai Department of Fisheries, in cooperation with the Department of Foreign Trade and NMFS, US Department of Commerce. As to the US contention that "Malaysia provided no indication that it ever intended to adopt a TEDs requirement", Malaysia recalled that (i) it had participated in the regional workshop titled "[t]he Utilisation of Shrimp Trawls Equipped with TED" organised by the Department of Fisheries, Thailand, in cooperation with the US Department of Foreign Trade and NMFS, and (ii) Malaysia had undertaken, with SEAFDEC, work to localize where the SEAFDEC developed TED should be used in Malaysia, which had led to the introduction of TEDs at Sigari, Perak. With regard to the US contention that Section 609 had been narrowly crafted so as to exclude any element of a "disguised restriction", Malaysia submitted that the different time period provided by the United States to Malaysia and to the newly affected countries to comply with Section 609 requirements, as compared to the 3 years given to the 14 countries of the wider Caribbean region and a period of about 10 years to the US domestic shrimpers, constituted an unjustifiable discrimination. Even if Malaysia had been given 3 years to phase-in TED use, it would still be unacceptable from a legal and practical point of view. Legally, the same 3 years would still cause the import prohibition inconsistent with GATT Article XIII because a 3 year phase-in would not change the fact that there is a different treatment between the complainants and the initially affected countries, inconsistent with Article XIII. Practically, even after certification, Malaysia would still be subject to a yearly assessment and review by the US State Department, as required under Section 609; such an assessment was subjective and created an element of uncertainty which was disruptive to trade. Moreover, that fact that Malaysia and other uncertified countries had suffered a loss of market share refuted the US contention that Section 609 was not a disguised restriction on trade.

313. According to Malaysia, "where the same conditions prevail" applied to both the position of the United States vis-à-vis Malaysia and the position of Malaysia vis-à-vis other countries affected by Section 609. The same conditions had to apply to the United States and Malaysia in order to fulfil the requirements of the chapeau and the treatment had to be the same for other affected countries. Regarding the concept "the same conditions prevail", Malaysia stressed the following facts. The major sea turtle species which were of concern in the United States were the loggerhead and the Kemp's ridley. These two species had been more extensively studied than the other species, in particular in publications addressing mortalities in shrimp trawls. On the other hand, loggerheads rarely nested on Malaysian beaches, and Kemp's ridleys did not occur in Malaysian waters. In Malaysia, the major sea turtle species was the green turtle, followed by the hawksbill, the leatherback and the olive ridley. The high mortality of sea turtles reported in shrimp trawls in the United States actually referred to loggerheads and Kemp's ridleys. These two species lived in nearshore waters where they fed on bottom invertebrates such as crabs, shrimp and mollusc. These habitats were heavily trawled by shrimpers in the United States. The residence of loggerheads and Kemp's ridleys in trawling grounds in the United States naturally accounted for the facts that large numbers of these turtles were caught in shrimp trawl nets, and explained why in the United States it was essential that TEDs be applied to shrimp trawlers to save these two species from extinction. Since neither loggerheads nor Kemp's ridleys lived in nearshore waters in Malaysia, the same conditions did not prevail in Malaysia. Malaysia further argued that green turtles were residents in seagrass beds, which were found in shallow coastal waters, and hawksbill were found in coral reef; trawling was prohibited in these areas. During the nesting season, green turtles remained close to shore, in areas where, again, trawling was prohibited. During long-distance migrations between feeding and nesting grounds, turtles were actively swimming close to the surface of the water, which made them more vulnerable to driftnets and longlines rather than trawlnets. In Malaysia, trawling targeted fish for the most part of the year and, thus, the incidental capture of sea turtles was due to fish trawls and not shrimp trawls. Again, this demonstrated that the same conditions did not prevail in Malaysia.

314. With regard to the relevance of public international law in interpreting the chapeau, Malaysia agreed with the United States that the Panel should not depart form the text of the GATT. However, this did not preclude the Panel from following customary rules of interpretation of public international law in deciding this case, as required by Article 3.2 of the DSU. Malaysia stressed that the multilateral agreements cited by the United States in paragraphs 3.192 and 3.193 were primarily used to show that countries had jurisdiction over a matter regardless of where the matter was located. Malaysia questioned which provisions of these multilateral agreements cited by the United States required countries to take conservation measures against a country not party to the agreement and recalled its arguments in this regard, contained in paragraphs 3.274 and 3.275. Malaysia further noted that multilateral environmental treaties generally resorted to the soft law approach and their provisions were written in a persuasive language, as could be seen from the provisions requiring parties to undertake obligations under the agreement. This contrasted with the mandatory language of treaties based on hard law, such as the 1949 Geneva Convention I for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field, and the 1949 Geneva Convention II Relative to the Treatment of Prisoners of War.

315. The United States considered that the term "where the same conditions prevail" had to be interpreted "in accordance with its ordinary meaning", in its "context and in the light of its object and purpose".[370] As the Appellate Body explained in the Gasoline case, the object and purpose of the Article XX chapeau was generally to prevent the abuse of the Article XX exceptions.[371] Accordingly, the term "where the same conditions prevail" should include the "conditions" in a country that related to the policy goal of the applicable Article XX exception. In other words, if a measure discriminated among countries based on conditions that were legitimately connected with the policy of an Article XX exception, the measure did not amount to an abuse of the applicable Article XX exception. Here, the United States was invoking Article XX(g), which had the goal of conserving exhaustible natural resources. In particular, the United States submitted that its restrictions on shrimp importation related to its goal of conserving endangered species of sea turtles. Thus the relevant "conditions" in this case were those conditions of shrimp harvesting that related to the conservation of sea turtles. In fact, the United States measures were tailored to the conditions of the exporting country's shrimp fishery, as those conditions related to sea turtle conservation, as explained in paragraph 3.276.[372]

316. The United States noted that the only discrimination alleged by the complainants related to the timing of the application of the US measures. However, as already noted, the difference in timing, at most, benefitted the complainants. They had not been subject to measures under Section 609 for a full three years after those measures had been first applied to nations in the wider Caribbean Western Atlantic region. And, by the time Section 609 had been applied to countries outside the wider Caribbean/Western Atlantic region, TEDs had developed to the point where they were extraordinarily effective, easily available, and inexpensive. Nor were the US measures a disguised restriction on international trade.

317. India, Pakistan and Thailand replied that, since the United States had failed to show that shrimp trawling was the primary cause of sea turtle mortality in the complainants' waters, it could not

[370] Vienna Convention on the Law of Treaties, Article 31.1.

[371] Appellate Body Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/9, p. 24.

[372] The United States noted that, even if the Panel were to find discrimination with respect to countries where the same conditions prevailed, such discrimination would be neither "arbitrary" nor "unjustifiable". Section 609 was applied in a manner based on specific and reasonable criteria tied to the goal of conserving sea turtles.

demonstrate that it had discriminated between the complainants and other nations based on conditions legitimately connected to the Article XX exceptions. The Preamble to the WTO Agreement, which the United States considered pertinent to interpreting Article XX, required, inter alia, that measures to protect the environment be undertaken "in accordance with the objective of sustainable development" and "in a manner consistent with [Members'] respective needs and concerns at different levels of economic development". India, Pakistan and Thailand were of the view, however, that the United States had failed to demonstrate, in enacting the measure at issue, that it had considered whether it was more appropriate under the concept of sustainable development to address other, more significant, local causes of sea turtle mortality than shrimp trawling. The United States had also failed to demonstrate that it had considered the complainants' needs and concerns based on their level of economic development. Even accepting the US argument that "the condition in this case were those conditions of shrimp harvesting that related to the conservation of sea turtles", there was no justification for allowing the initially affected nations nearly three years in which to attain the required "conditions", while providing the complainants with less than five months to comply. India, Pakistan and Thailand also considered that TEDs had not been "extraordinarily effective" in the United States and the TEDs programme had been very expensive to implement in Thailand.

318. India, Pakistan and Thailand stressed they did not contend that the US TED programme had been implemented as a disguised restriction on international trade; the US programme was a response to clear scientific evidence regarding the principal threat to sea turtles swimming along the coastline of the United States. However, India, Pakistan and Thailand contended that extending the same programme outside the United States was a disguised restriction on international trade, because scientific evidence did not demonstrate that shrimp trawling was the principal threat or even an immediate threat to sea turtles elsewhere in the world. India, Pakistan and Thailand were of the view that TEDs were not an "international environmental standard" and believed that TEDs use by many countries did not indicate a recognition of their necessity to protect sea turtles but rather the necessity to adhere to this standard if they desired to sell shrimp in the United States. Thus, the US argument that TED requirement was not a disguised restriction on trade because it was an international environmental standard was unpersuasive. The complainants' contention that the measure acted as a disguised restriction on international trade flowed from the fact that several in Congress who had supported this measure were apparently more concerned with equalizing the costs of environmental regulation imposed on the domestic industry with that imposed on its foreign competitors, regardless of the relative merits of regulating shrimp trawl fisheries, as opposed to taking other measures to protect and increase sea turtle populations in other parts of the world. Furthermore, the dissemination of information on TEDs by the United States had been rather limited in India, Pakistan and Thailand and did not reduce the costs of implementing a universal TEDs programme, or the costs imposed on individual shrimp trawlers. Finally, the fact that the total level of shrimp imports into the United States had not been disrupted did not compel the conclusion that the US measures were not a disguised restriction on trade. The nature of the trade restriction was the imposition of an additional cost on the foreign industry making that industry less cost-competitive in the United States and the risk that the right to export to the United States might be revoked if a country lost certification. The fact that the foreign industry was still able to collectively ship the same amount of shrimp to the United States did not mean that there had been no restriction on international trade. It might mean that overall consumption was increasing or that foreign profitability had been squeezed, discouraging future investment in the exporting countries. This was precisely the intent of those in the Unites States Congress who had sought to impose on foreign shrimp fisheries the additional regulatory costs of protecting sea turtles through the mandatory use of TEDs. These facts contradicted the US assertions that its measures were not a disguised restriction on trade.

319. Malaysia responded that the United States had failed to prove that the same conditions had to apply to the United States and Malaysia. The reasons given by the United States in paragraph 276 attempted to show that the same conditions existed between countries which were affected by Section 609. However, Malaysia had proved that the same conditions did not prevail between the United States and Malaysia.

320. The United States first noted that, contrary to what was claimed by India, Pakistan and Thailand, nothing in the text of the Article XX chapeau required that a measure address the "primary cause" of an environmental problem. The United States further argued that the US measures under Section 609 were not abuses of the Article XX exceptions, but rather bona fide measures for the conservation of sea turtles. First, the complainants seemed to agree in substance with the United States that the relevant conditions to consider when interpreting the phrase "where the same conditions prevail" were those conditions of shrimp harvesting that related to the conservation of sea turtles. In that regard, the United States reiterated that all exporting nations with the same shrimp-harvesting conditions were treated equally, without discrimination. The complainants had actually benefited from the difference in timing they pointed out. As to the argument that the United States currently did not permit imports of shrimp caught with TEDs from nations that were not certified under Section 609, the United States recalled that none of the complainants were uncertified nations that were attempting to export TED-caught shrimp to the US market. Indeed, the United States was unaware of any uncertified nation that would like to export TED-caught shrimp to the United States. Moreover, the question of the application of Section 609 to TED-caught shrimp from uncertified nations was currently under consideration by a US Appellate Court. Finally, the US measures under Section 609 were not a "disguised restriction on international trade" because they did not represent an "abuse or illegitimate use" of the individual paragraphs of Article XX. To the contrary, the record showed that sea turtles were endangered by shrimp trawling practices, that TEDs prevented such harm, and that, by restricting the importation of shrimp caught without TEDs, Section 609 sought to ensure that the US shrimp market did not contribute to the endangerment of sea turtles.

321. The United States further noted that the aggregate US import data provided to the Panel showed that the US measures under Section 609 had not affected aggregate shrimp import quantity or price, and thus had not provided any protection to the domestic industry. These data further supported the point that Section 609 was not a disguised restriction on trade. Finally, the fact that shrimp caught with so-called soft TEDs could be imported into the United States, while hard TEDs had been found more effective missed the point. Once again, the India, Pakistan and Thailand tried to turn the issue from the application of Article XX to questions of sea turtle conservation policy. The United States measures did not amount to a "disguised restriction" regardless of whether the United States allowed the importation of shrimp caught with soft TEDs.

322. India, Pakistan and Thailand responded that the United States misapprehended their point when claiming that nothing in the Article XX chapeau required that a measure address the "primary cause" of an environmental problem. The chapeau forbade unjustified discrimination between countries "where the same conditions prevail". The United States claimed that it did not discriminate unfairly against the complainants because it based its discrimination on whether or not a country had a TED programme in place and whether or not a TEDs programme was necessary in the circumstances to protect sea turtles. (In cases in which the United States considered TEDs of limited or no effectiveness in protecting sea turtles, including certain regions in the United States itself that sea turtles were known to inhabit, shrimp trawl industries were exempted from the TEDs requirements.) However, India, Pakistan and Thailand maintained that there was unjustified discrimination between them and countries with no TEDs requirements (including portions of the United States) because the United States had failed to demonstrate in such case that the "same conditions" did not prevail in India, Pakistan and Thailand on one hand, and in those other nations on

the other hand. Specifically, the United States had failed to demonstrate that the imposition of a TEDs requirement was any more necessary to protect sea turtles in India, Pakistan and Thailand than it was for those other countries and US regions for which no TEDs were required.

3. Article XXIII:1(a)

323. India, Pakistan and Thailand recalled that Section 609 and the resulting embargo and certification process represented a clear infringement of GATT Articles I, XI and XIII. It was well-established that "in cases where there is a clear infringement of the provisions of the General Agreement, or in other words, where measures are applied in conflict with the provisions of the GATT ..., the action would, prima facie, constitute a nullification or impairment" within the meaning of Article XXIII of GATT. [373] In particular, import restrictions had been found to constitute a prima facie case of nullification of impairment and the party imposing the restriction had the burden to rebut the presumption. [374]

324. India and Pakistan further submitted that this case presented a clear-cut example of a measure imposed by one Member nullifying and impairing the rights and benefits of another Member. As noted, the volume and value of Indian and Pakistani shrimp exported to the United States had declined dramatically since the embargo had been imposed. Moreover, the embargo had led to an increase in transaction costs associated with exporting shrimp to the United States since all exporters had to obtain the signature of an authorized government agent before the merchandise was shipped. Furthermore, the US embargo had created a great deal of uncertainty and confusion in the Indian and Pakistani shrimp industry. This was conclusory evidence that the two complainants' rights had been nullified or impaired by the shrimp embargo. In similar circumstances, prior dispute settlement panels had found "the existence of a quantitative restriction should be presumed to cause nullification or impairment not only because of any effect it had on the volume of trade but also for other reasons, e.g. it would lead to increased transaction costs and would create uncertainties which could affect investment plans". [375]

325. Thailand further submitted that, in addition to the fact that Section 609 and the embargo represented a prima facie nullification or impairment of the benefits accruing to Thailand under the General Agreement, the embargo proximately had caused a decline in exports of shrimp and shrimp products to the United States. As noted, from the date of application of the embargo to Thailand to the date on which Thailand had been certified, exports of shrimp from Thailand to the United States had declined by approximately 18 per cent from the same period in 1995. Moreover, since the United States could decertify Thailand without notice or recourse, Thailand's shrimp trade could face similar declines in the future, and, because of this threat, was subject to uncertainties which might limit investment in the shrimp industry in Thailand. In addition, application of the embargo and certification procedures had created uncertainties in the marketplace and had increased transaction costs associated with shrimp trade with the United States. [376] Among the increased transaction costs were the cost of installing TEDs on Thailand's commercial shrimp trawl fleet, the cost of creating education programmes to teach Thai shrimp trawlers how to use TEDs, and the cost to the Royal Thai Government of implementing and enforcing the regulation regarding the use of TEDs.

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[373] Panel Report on Uruguayan Recourse to Article XXIII, adopted 16 November 1962, BISD 11S/95, paragraph 15.

[374] Panel Report on Japanese Measures on Imports of Leather, adopted 15/16 May 1984, BISD 31S/94, paragraphs 47-48, 53, 55-56.

[375] Ibid.

[376] Ibid.

IV. ARGUMENTS PRESENTED BY THIRD PARTIES

1. Australia

326. Australia submitted that its exports of shrimp to the United States had been subject to the requirements laid down under Section 609 since May 1996. The unilateral, and selectively abrupt, imposition by the United States of an import embargo under Section 609 raised important trade and environmental policy concerns, including the fact that it was pursuing the objective of turtle protection through the unilateral imposition of an import embargo rather than working cooperatively at the bilateral level and through multilateral fora to address any transboundary or global issues involved. Australia's concerns were not about the validity of the US environmental objectives to protect and conserve turtles, but the particular measures it had chosen to use in pursuit of these objectives and their consistency with its WTO obligations.

327. In spite of having submitted a request for certification in April 1996, Australia had not been certified on 1 May 1996. In support of its request for certification, Australia had presented a detailed submission on its marine turtle conservation regime which extended well beyond protecting turtles from shrimping nets.[377] That conservation regime included cooperative programmes with the shrimp industry to limit turtle/trawler interaction. Six of the world's seven species of marine turtles were found in northern Australian waters. They were migratory animals whose populations were shared between Australia and its regional neighbours in the Indo -Pacific. There was international concern over the impact of human activities on turtle populations which included commercial and subsistence hunting, egg harvesting, damage to nesting beaches and feeding areas, fisheries bycatch, marine debris, and boat-strike. The Australian fishing industry was committed to continuous improvement in its understanding and amelioration of the effects of shrimp trawling on the environment generally and specifically on animals which were of conservation significance. Research efforts to minimise bycatch was also well advanced in the Northern Prawn Fishery (NPF).

328. Australia submitted that total Australian exports of shrimp were valued at A$ 223 million in 1995/96. Annual exports accounted for 60 to 70 per cent of the total Australian shrimp harvest. Therefore, Australia had a substantial trade interest in this dispute, although direct exports to the US market had not been significant in recent years. Australia had a particular concern with the medium to long term implications of disruption to global markets, increased competition from embargoed shrimp, potential for existing markets to lever down prices, and consequent changes to other countries' import requirements.

329. Australia argued that the US measures were inconsistent with Articles I and XI and were not covered by Article III of GATT 1994. Moreover, the United States did not demonstrate that its measures were in conformity with the requirements of Article XX.

330. The differential treatment of shrimps from certified and non-certified countries was inconsistent with the requirements of Article I:1 of GATT 1994. The US import restrictions were based solely on country of origin of shrimps, including between WTO Members. The United States had granted certification to some forty countries on the basis that they were cold water shrimping nations, or that they did not use mechanical means to harvest shrimp or that they required the use of TEDs. However, the United States had refused certification to Australia and certain other shrimp

[377] US Embargo on the Import of Wild-Caught Shrimp, Submission by Australia to the US Secretary of State in support of its request for certification under Section 609(b), April 1996.

exporters, and exports of certain shrimp from these countries were prevented entry into the United States except for specific categories such as aquaculture shrimp. Shrimp from certified countries were not subject to such limitations. Certification was granted not on the basis of any differences in the products exported by certified and non-certified countries but on the basis of differences in their domestic conservation policies. There was nothing in the US certification requirements that provided a basis for considering that shrimp and shrimp products from certified and non-certified countries were not "like" products, and the US measures did not require any differences in products in granting certification. Consequently, the US measures granted an advantage to imports of shrimp and shrimp products from certified countries which was not available to the imports of like products from non-certified countries. This constituted discriminatory treatment of products on the basis of country of origin as the US measures distinguished between imports on the basis of the domestic conservation policies of the exporting countries and not on the basis of differences in the nature or character of the products. The measures were therefore inconsistent with US obligations under Article I:1.

331. Australia further argued that the US measures did not come within the scope of Article III as they were not measures relating to internal taxation and regulation of imported goods, but were conditions attached to the importation of a product. The measures constituted an import embargo on shrimps which were not harvested using TEDs and, as such, came within the scope of Article XI. Even if the United States was to claim that the measures were internal regulations enforced at the border, and within the scope of the Note Ad Article III, the measures would still not meet the requirements of Article III. Under the US measures, certification and therefore import approval was contingent upon the exporting nation instituting and enforcing a "comparable" regulatory regime which modified prawn harvesting practices to reduce turtle mortality. Such measures were clearly not intended to be covered by Article III. The Tuna II Panel Report, for instance noted that "Article III calls for a comparison between the treatment accorded to domestic and imported like products, not for a comparison of the policies or practices of the country of origin with those of the country of importation". The Panel also found that Note Ad Article III could, therefore, only apply to "those laws, regulations and requirements that affected or were applied to the imported and domestic products considered as products".[378] The US measures distinguished between shrimp and shrimp products on the basis of the domestic conservation policies of the country in which they were harvested. Other than specified exceptions, imports were prevented of products from countries judged not to have a programme to reduce the incidental capture of sea turtles in shrimp fisheries comparable to that in the United States, specifically through the mandatory use of TEDs. This distinction did not relate to shrimp as products and therefore could not be covered by the provisions of Article III.

332. With respect to Article XI, Australia submitted that the US measures banned the import of shrimp and shrimp products from non-certified countries except for some specified categories including aquaculture shrimp or shrimp harvested in areas where there was no risk of capturing sea turtles. As certification was granted on the basis of differences in countries' domestic conservation policies, the US measures essentially banned imports of shrimp from countries not meeting certain policy conditions. In Tuna II, the panel found that a ban on the import of tuna or tuna products from any country not meeting certain policy conditions were "prohibitions or restrictions" in the terms of Article XI of GATT.[379] The US measures were therefore inconsistent with the requirements of Article XI:1. As they represented import prohibitions and not restrictions, and as the United States had not claimed that the measures related to the application of standards or regulations for the classification, grading or marketing of commodities, the measures did not come within the scope of paragraph 2 of Article XI.

[378] Panel Report on United States - Restrictions on Imports of Tuna, not adopted, DS29/R, circulated on 10 June 1994, paragraph 5.8.

[379] Ibid., paragraph 5.10.

333. Australia considered that, by not contesting the inconsistency of the import embargo under other GATT provisions and by invoking the provisions of Article XX, the United States had the burden of demonstrating that it had the exceptional right to maintain measures which were not in conformity with other GATT provisions. Australia did not contest that measures having the claimed objective of protecting animal life and of conserving exhaustible natural resources came within the scope of Article XX(b) and (g). The fundamental issue in the present case was whether the import embargo on certain shrimp caught in other locations, which had been imposed on the basis of unilaterally determined US standards for the protection of turtle life and for the conservation of turtles in the United States, constituted measures whi ch were necessary for the protection of turtles or were related to the conservation of turtles as an exhaustible natural resource.

334. In Australia's view, the dispute did not concern the relationship between the GATT and obligations under another international treaty or international legal norms in regard to the use of TEDs in shrimp harvesting in all locations. For instance, the provisions of the Inter-American Convention could only involve a regional standard agreed between parties to that Convention. No party was contesting the GATT consistency of restrictions on trade in sea turtles under other international treaties. As the United States was not required by any other international treaty to impose an import embargo on shrimps from countries such as Australia which did not have regulatory programmes requiring the use of TEDs, conflict between obligations under the GATT and other international treaties was not at issue. The panel had, therefore, to consider whether the United States had demonstrated that import embargoes on certain shrimp, that were imposed on the basis of the regulatory programmes of other countries governing shrimp harvesting in their jurisdiction, met the conditions of Article XX(b) and (g), including the chapeau to Article XX.

335. Australia considered that the WTO Agreement on Sanitary and Phytosanitary Measures was not relevant to the present issue because the approach of that Agreement in regard to unilaterally determined measures had no application to circumstances involving measures which did not involve pest or disease control and which applied to animal life and conservation outside the territory of a Member.

336. Australia did not contest that measures having the stated purpose of protecting and conserving sea turtles came within the scope of Article XX(b) and (g). However, Australia did not consider that the United States had demonstrated that its discriminatory trade measures on shrimp were either necessary for the protection of sea turtles in all locations or satisfied the conditions attached to the use of discriminatory trade measures for the purpose of sea turtle conservation.

337. The only way in which another WTO Member, including Australia, could gain access to the US import market for certain shrimp was to meet the US certification requirements. Except in regard to cold water, artisanal and aquaculture shrimping, the only way in which a Member could be certified was by adopting the same mandatory TED requirement as the United States, and irrespective of the turtle conservation policies of that Member. The United States was not obligated to impose the specific certification requirements on other Members in accordance with either US or Australian obligations under another international treaty. Rather, the United States was imposing a trade measure on other Members with the effect of "burden sharing" in terms of the economic consequences of harvest loss associated with the use of TEDs. US mandatory requirements for the use of TEDs effectively hindered international cooperation in commercial bycatch issues.

338. It was difficult to see how the US measures could have any direct effect on the conservation or protection of turtles. For example, shrimp caught with TEDs in non-certified countries were still

subject to the embargo. Furthermore, shrimp subject to the embargo could come from countries which had effective policies and programmes for turtle conservation, or were developing such programmes, but which were not certified simply because their policies differed from that of the United States in not mandating the use of TEDs. There could be environmental, commercial and regulatory reasons why a different approach to addressing bycatch issues was appropriate in other countries. The US import embargo therefore prohibited imports from non-certified countries, whether or not the particular shrimp was harvested in a manner that harmed or could harm turtles, and whether or not these countries had shrimp harvesting practices and policies that harmed or could harm shrimp. The embargo could not, by itself, further the US conservation objectives. The only way in which the embargo could possibly contribute to these objectives would be if it was followed by changes in the policies and practices of the exporting countries. As pointed out in the Tuna II Panel Report, measures which could only have a conservation or wildlife protection effect if they resulted in changes in the policies pursued by other countries, could not be primarily aimed at the conservation of an exhaustible natural resource, or at rendering effective restrictions on domestic production or consumption, in the meaning of Article XX(g), nor could they be considered "necessary" for the protection of animal life or health in the sense of Article XX(b). [380]

339. By claiming that discriminatory import restrictions had been imposed for the purposes of ensuring that US conservation measures were not "undermined", while considering that countries remained "free to use any methods they consider appropriate in harvesting shrimp", the United States appeared to be confusing "measures" and "policies". The "measures" in this instance were discriminatory trade measures. The United States had not claimed that access for shrimp from non-certified countries would prevent it from attaching and enforcing bycatch harvesting conditions to shrimp of US origin, or to shrimp from countries with which it had reached agreement on bycatch harvesting conditions, for the purposes of achieving domestically or internationally agreed conservation policies. Nor had the United States claimed that non-certification would prevent it from enforcing any of its bilateral, regional or multilateral obligations under another treaty. As such, the purposes of the trade restrictions would appear to relate to US domestic consensus about trade related domestic conservation policies. The "necessity" to maintain trade measures for the stated purpose of ensuring that domestic non-trade practices were not "undermined" did not translate into a demonstration that the trade measures were "necessary" for the protection of animal life, or that they "related" to conservation of an exhaustible natural resource. Australia further argued that the United States did not demonstrate that its domestic sea turtle conservation measures, or that sea turtle conservation measures involving trade restrictions and agreed upon with other countries, could only be maintained by recourse to discriminatory trade measures against products of third country origin. It did not demonstrate that other GATT consistent measures were not reasonably available to it in order to maintain its own measures, or measures agreed in common with other countries, for the purposes of implementing unilateral or internationally agreed policies in regard to international sea turtle conservation. Indeed, alternatives were specifically identified in Section 609(a)(1) to (4).

340. Australia further argued that, in addition to failing to m eet the requirements of Article XX(b) and (g), the application of the US measures constituted an "unjustifiable discrimination" and a "disguised restriction on international trade" inconsistent with the requirements of the chapeau of Article XX. The United States had failed to demonstrate the contrary. In particular, it did not supply evidence that it had adequately explored means of addressing its concerns about shrimp harvesting practices and turtle conservation in other countries - the concerns it had used to justify its discriminatory import embargo - through cooperation with the governments concerned. The United States had offered to certain countries to negotiate a multilateral sea turtle conservation agreement but

[380] Panel Report on United States - Restrictions on Imports of Tuna, not adopted, DS29/R, circulated on 10 June 1994, paragraphs 5.27 and 5.39.

this offer was conditioned on acceptance of the mandatory use of TEDs and therefore could not be regarded as an adequate exploration of the scope for international cooperation on the issues involved. Furthermore, the offer had been made after the imposition of the import ban and the initiation of WTO consultations. The United States sought to defend its measures as consistent with the chapeau of Article XX by stating that the chapeau did not include an international cooperation requirement. However, the United States failed to address the fact that it was difficult to see how a discriminatory trade ban that addressed transboundary and global conservation concerns could meet the requirements of the chapeau of Article XX when the United States had not adequately explored the scope for international cooperation. Accordingly, there must be a presumption that the US measures were being applied in a manner that involved "unjustifiable discrimination" and constituted a "disguised restriction on international trade", in line with the Appellate Body's findings in the Gasoline case. Also relevant to the current dispute was the observation by the Tuna I Panel over the failure to explore the scope for international cooperative arrangements to address conservation objectives "which would seem to be desirable in view of the fact that dolphins roam the waters of many states and the high seas".[381] In its own submission the United States clearly recognised and identified the transboundary and global aspects of turtle conservation but failed to demonstrate that it had sought to address these aspects in order to avoid discriminatory trade measures through properly exploring the scope for international cooperation.

341. Australia noted that this dispute did not concern the validity of the environmental objectives of the US to protect and conserve turtles, but the particular trade measures chosen in pursuit of these objectives and their consistency with its WTO obligations. As observed by the Appellate Body in the Gasoline case, the fact that the US measures were inconsistent with its WTO obligations did not mean that the ability of any WTO Member to take measures to protect the environment was at issue, as "that would be to ignore the fact that Article XX of the General Agreement contains provisions designed to permit important state interests - including the protection of human health, as well as the conservation of exhaustible natural resources - to find expression". [382] Furthermore, the preamble to the Marrakesh Agreement Establishing the World Trade Organization stated the desire of WTO Members to conduct their relations in the field of trade and economic endeavour in a way which allowed for the optimal use of the world's resources in accordance with the objective of sustainable development. WTO Members were giving practical effect to this desire through the Committee on Trade and Environment (CTE) in considering the issues raised by the relationship between trade and the environment and with the aim of making international trade and environmental policies mutually supportive.

342. In its November 1996 Report, the CTE recalled Principle 12 of the Rio Declaration that "[u]nilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global problems should, as far as possible, be based on an international consensus," and noted "there is a clear complementary between this approach and the work of the WTO in seeking cooperative multilateral solutions to trade concerns". [383]

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[381] Panel Report on United States - Restrictions on Imports of Tuna, not adopted, BISD 39S/155, circulated on 3 September 1991, paragraph 5.28.

[382] Appellate Body Report on United States - Standards for Reformulated and Conventional Gasoline, adopted on 20 May 1996, WT/DS2/9, p. 30.

[383] Report (1996) of the Committee on Trade and Environment, WT/CTE/1, 12 November 1996, paragraph 171.

343. Australia added that both the CTE's Report and the Singapore Ministerial Declaration had underlined the importance of policy coordination at the national level in the area of trade and environment, and the Declaration had welcomed the participation of environmental as well as trade experts in the CTE's work. These provided appropriate avenues for Members to seek to ensure that trade and environment policies were mutually supportive in promoting the objective of sustainable development.

2. Ecuador

344. Ecuador submitted that the international marketing of shrimp and sh rimp products was extremely important for its economy, which was one of the world's foremost exporters of farmed shrimp. In 1996, Ecuador exported a total of 85,649 metric tonnes, for an amount of US$ 624,330,000. Shrimps accounted for 20 per cent of Ecuador's total exports and their share of Ecuador's GDP was currently 4 per cent.

345. For a number of years, countries on the Atlantic coast and in the Caribbean Basin had had to adapt their fishing practices to meet the requirements of Section 609 in order to be able to export shrimp to the United States. Countries that did not use TEDs were put on an embargo list and could not export to the United States. Ecuador was not included in the first list of countries that violated US standards because it submitted sufficient proof that its fishing practices protected sea turtles on the basis of legislation enacted in April 1996, which made it mandatory to use TEDs when taking shrimp in Ecuadorian waters. In November 1996, the first US mission visited Ecuador and found that every effort was being made to use TEDs. Certification being an annual procedure, a second official inspection visit to Ecuador was made in March 1997. On 2 April, Ecuador learned that the report by the NMFS inspectors was negative and that the Department of State had decided to include Ecuador in the list of countries whose shrimp could not be imported to the United States as from 1 May 1997. Finally, after the Ecuadorian Government had made several efforts and following its request for re-certification, on receipt of a technical report on the inspection mission by the NMFS, on 30 May 1997, the Department of State announced the decision to lift the ban on imports of sea shrimp from Ecuador. In any event, this situation created a great deal of insecurity for shrimp exporters, who were subject to arbitrary measures that did not allow them the necessary predictability to pursue their commercial operations properly. Ecuador also noted that the "Galápagos" species of turtle was found only in Ecuador; this species was not aquatic and was protected since 1970. Three species of turtles nested in Ecuador, but only in the extreme north of the country, an area protected since 1979. The other turtles were pelagic and lived 30 to 40 miles off the coast, whereas shrimp were fished between 8 to 10 miles offshore. Thus, the United States imposed on Ecuador standards and procedures to protect turtles that were not found off its coasts.

346. The shrimp industry started up in Ecuador in 1968. In 1997, as a result of the efforts made by Ecuadorian enterprises, the utilization of existing natural resources and the training of Ecuadorian technicians, the production performance achieved by this sector made it one of the mainstays of Ecuador's economy, occupying the third place for foreign currency earnings after bananas and petroleum. Ecuador was currently the biggest producer in the western hemisphere and occupied second place at the global level. Shrimp production was mainly based on two activities:

(a) Shrimp farming, which production accounting for 95 per cent of the volume exported. In 1995 a total of 178,000 hectares of seashore and beach were used to farm shrimps in captivity, 82 per cent of this area was farmed by 1,974 farmers produced shrimp.

(b) wild caught shrimp, which was carried out by fishermen on a small scale and by a trawling fleet composed of 179 legally registered fishing boats, of which 150 were operational. The share of wild caught shrimp in the total volume of shrimp exports was barely 5 per cent, although it corresponded to 8 per cent of the value because these shrimps were larger.

347. The trend in exports of farmed shrimp in recent years was mainly due to improvements in technology. In 1991, for example, Ecuador had exported 79,029 metric tonnes for an amount of US$491.4 million, corresponding to an increase of 49.7 per cent in volume and 44.39 per cent in foreign currency in comparison with 1990. In 1992, it had exported a peak volume of 86,796 metric tonnes for an amount of US$525.7 million. In 1995 and 1996, production conditions had improved: 86,567 metric tonnes and 85,650 metric tonnes respectively had been exported, with high foreign exchange earnings of US$673.4 and US$624.3 million respectively for these two years. Between January and April 1997, the volume of exports had been 30,559 metric tonnes, equivalent to US$ 249.6 million, an increase of 25.12 per cent over the value for the period January-April 1996. In 1996, the major importers of Ecuadorian shrimp had been the United States with 51 per cent, Europe, 36.5 per cent, Far East with 10.1 per cent, and others with 2.4 per cent. In addition to contributing towards the development of Ecuador's economy, the shrimp industry also created skilled and unskilled jobs. The number of persons directly employed in this sector was estimated at about 150,000, and indirectly around 250,000.

348. Ecuador noted that the desirability of implementing a particular conservationist policy was not under discussion in this case since all countries agreed on the need to protect the planet's resources; the problem was how to implement this policy in practice. Obviously, relations between States had to be set within the framework of international law, and it could not be acceptable that one country's domestic policy objectives should be applied to other sovereign States. This principle of mutual respect among States was one of the keystones that had enabled mankind to achieve a relative degree of peace and prosperity in the second half of this century: this was a benefit that had to be carefully safeguarded. Nor was this case about establishing the degree of injury caused to the exports of countries that did not obtain certification. The problem was that this situation created serious insecurity for shrimp exporters, who were subject to arbitrary measures that did not allow them to have the proper predictability as to the future development of their trade operations.

349. Endorsing the legal arguments put forward by Thailand, Ecuador argued that the US legislation was inconsistent with its obligations under GATT 1994, specifically Articles I:1, III:4 and XI:1. Moreover, the embargo was not justified under the exceptions provided for in Article XX(b) and (g). Regarding Article I.1, Ecuador considered that a single product, shrimp, was treated differently according to the method used to take it. Shrimp taken without TEDs could not be imported into the United States. Furthermore, some countries had had several years to adapt their fishing practices to the provisions of US legislation, whereas others, including Ecuador, had had to do so in a few months, with the ensuing financial burden and training problems for fishermen. With respect to Article III:4, Ecuador submitted US shrimp fishing boats operating in Pacific Ocean waters did not appear to be obliged to use TEDs and their catch was marketed in the United States without any restrictions. This difference in treatment would constitute discrimination according to the principle of "national treatment". All shrimp producers should receive the same treatment as was accorded to US producers in the Pacific area, particularly if the species of turtles it was sought to protect did not exist in their countries. Ecuador considered that the United States was not complying with Article XI:1 because it was restricting imports of a product on the basis of domestic conservation policies and not duties, taxes or other charges. Previous panels had found that such prohibitions established by the United States in the past, for example in the Tuna cases, were contrary to GATT, and more specifically to Article XI:1. Lastly, the rules laid down by the United States could not be

justified under Article XX(b) and (g). The scope of these provisions was explained in greater detail in the Tuna I Panel Report.

3. El Salvador

350. El Salvador stated that its interest in participating as a third party in this Panel stemmed from the fact that shrimps and shrimp products were an important part of its exportable supply of non-traditional products. The line of conduct pursued by El Salvador had been one of faithful respect and support for the multilateral principles and disciplines governing trade. El Salvador therefore considered that the application of unilateral and extraterritorial measures having a restrictive effect on trade were unacceptable and incompatible with the multilateral system. The reputation and credibility of the WTO, resulting from long years of negotiation which established a delicate balance of rights and obligations among Member countries, could be threatened by the application and maintenance of such measures. El Salvador trusted that the work of the Panel would uphold the fundamental principles and rules which made the multilateral system a bulwark for the liberalization of trade in goods and services and for the protection of its Members' trade interests.

4. European Communities

351. The European Communities ("EC") considered that this dispute did not relate to the desirability of protecting and conserving sea turtles, a species listed in Appendix I of the CITES and therefore generally recognized to be a species threatened by extinction. Rather, it concerned the methods employed to achieve conservation of sea turtles and in particular measures taken to ensure that other countries employed the same means as, or at least means comparable to, those employed by the United States. In this respect certain of the issues before this Panel were similar to those in issue before earlier panels, such as Tuna II. However, the issues raised were not identical in view, inter alia, of the particular status of sea turtles. The Panel was called upon once again to consider the scope of application of the exceptions contained in Article XX of GATT 1994. The case raised a number of important questions of general principle relating to international law and WTO law, and the circumstances in which Members could take measures to conserve what could be considered to be "shared global resources". The EC noted in this respect the first preambular paragraph of the Agreement establishing the World Trade Organization.

352. The EC shared the concerns about the imperiled status of sea turtles. However, it considered that, in general, the attainment of shared objectives relating to the conservation of global resources, including endangered species, should follow the process of international negotiation. The EC remained of the view that, as a general principle, it was not acceptable for a state to impose restrictions on trade in order to force other states to adopt certain measures or face economic sanctions which included the withdrawal of rights enjoyed under the WTO Agreements. This view was consistent with Principle 12 of the Rio Declaration on Environment and Development. The EC considered that there was a broad degree of consensus among the parties to the dispute as to the precarious status of sea turtles and the need to take steps for their preservation. Since sea turtles were listed on Appendix I of CITES the parties agreed to restrict trade accordingly. Moreover, as the United States pointed out, sea turtles were protected under the CMS. The EC did not intend to make detailed observations on the factual data submitted by the United States to the panel but would simply note that the factual evidence it had presented showed that the use of TEDs was, at least in some cases, a reasonable and effective solution to minimize the incidental killing of marine turtles resulting from certain fishing activities.

353. Turning to the legal aspects, the EC submitted that the United States apparently did not dispute there was a prima facie infringement of the GATT and, hence, that it had the burden of proving that the measures at issue could be justified under Article XX. With respect to the

infringements to GATT 1994 alleged by the complainants, the EC observed that, whilst there were certain differences between the US legislation at issue in this case and that at issue in the Tuna II case, the basic features were similar. In particular, a country could not export certain wild-harvested shrimp to the US market unless it had been certified. This legislation was mandatory and the EC was of the view that it amounted to a quantitative restriction contrary to Article XI:1.

354. Regarding the US argument that the measure at issue was justified by Article XX paragraphs (b) and (g), the EC considered that, as ruled by the Appellate Body in the Gasoline case, the provisions of Article XX were "not changed as a result of the Uruguay Round of Multilateral Trade Negotiations".[384] Article XX was an exceptional provision and the long standing practice of panels had been to interpret it narrowly, in a manner which preserved the basic objectives of the General Agreement. The EC supported the exhortations of the complainants to the effect that the General Agreement should be interpreted in the light of fundamental rules of treaty interpretation as codified in the Vienna Conventions on the Law of Treaties and recalled the recent ruling of the Appellate Body in the Gasoline case that "the General Agreement is not to be read in clinical isolation from public international law".[385]

355. Regarding the jurisdictional scope of Article XX, the EC recalled that in Tuna II, the Panel had concluded there was no valid reason for supporting the conclusion that either Article XX (b) or (g) applied only to policies in respect of things located or actions occurring within the territorial jurisdiction of the party taking the measure.[386] Moreover, no jurisdictional restriction on use of Article XX was imposed by the Appellate Body in the Gasoline case. In the light of these rulings, the EC considered that Article XX could, in certain circumstances, be relied upon to justify measures taken to protect global commons (globally shared environmental resources) or resources located outside the territory of a Member, provided, of course, that the other conditions of application of the relevant exception in Article XX, and the introductory clause thereof, were complied with. However, such circumstances should indeed be exceptional. This followed from the fact that Article XX, as an exception to the rules of the General Agreement, should be construed restrictively, and from the fact that,in general international law, states could normally not apply their legislation so as to coerce other states into taking certain actions, including modifying their own domestic standards.[387]

356. The EC considered that current international law and practice showed that environment was one area where such exceptional circumstances could exist. In this field, the application of agreed rules beyond the normal jurisdictional limits of Members might indeed be necessary to ensure effective application of such rules. Hence, as noted by the United States, CITES prohibited trade in certain endangered species, including endangered species located within the jurisdiction of other countries and of countries which were not Parties to CITES. The EC did not deny that certain species, in particular migratory species, might require application of measures beyond usual jurisdictional boundaries. The EC noted in this respect that WTO rules should not hinder the pursuit of commonly shared environmental goals, including where such goals might justify the taking of

[384]Appellate Body Report on United States - Standards for Reformulated and Conventional Gasoline, adopted on 20 May 1996, WT/DS2/9, p. 18.

[385]Ibid., p. 17.

[386]With regard to the use to be made of unadopted panel reports, the EC referred to the statement of the Appellate Body Report on Japan-Taxes on Alcoholic Beverages, adopted on 8 November 1996, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, p.14 -15 to the effect that whilst unadopted panel reports had no legal status in the GATT or WTO systems since they had not been endorsed through decisions of the Contracting Parties to GATT or WTO members, "a panel could nevertheless find useful guidance in the reasoning of an unadopted panel report that it considered to be relevant".

[387]See Oppenheim's International Law, Ninth Edition, pp. 456 -498.

measures against third parties. However, for the criterion that exceptional circumstances existed to be fulfilled, the EC submitted that a state had to be able to demonstrate it had made genuine and sustained efforts to seek a multilateral solution before taking the measures in question, as underlined by the Appellate Body in the Gasoline case. The EC noted that, in the absence of such a requirement, countries would be permitted to enforce their conservation policies on other countries by unilateral action. In this case, the United States asserted that it had proposed the negotiation of a multilateral agreement for Asia comparable to the Inter -American Convention, but that this proposal had not been accepted so far. No details were, however, given as to what steps had been taken, or the content of the Agreement the United States proposed should be negotiated. The EC observed that the short time period which elapsed between the rulings of the CIT and the imposition of the ban implied that there was little possibility to engage in genuine efforts to find a negotiated solution.

357. The EC noted, that whilst the United States relied on CITES and the provisions of other relevant international conventions, it did not demonstrate that the method which it imposed for shrimp fishing was required by CITES or by any other multilaterally agreed standard. The US submission was based solely on the assertion that, because the United States considered the use of TEDs to be the most effective method of protecting sea turtles during shrimp fishing, and because a regional agreement advocating the use of TEDs had been concluded, the required use of TEDs had become a "multilateral environmental standard", a concept whose precise meaning was unclear to the EC. To conclude, the EC considered that in order to justify unilateral measures outside the jurisdiction of a Member in pursuit of commonly shared environmental concerns, a Member had to demonstrate that it had made genuine efforts to reach an agreed multilateral solution. Such efforts were to go beyond the mere imposition of its own domestic standards on other Members. Moreover, the Member invoking Article XX had to demonstrate that it had no objective alternative to the unilateral measure taken.

358. With respect to Article XX(g), the EC agreed with the United States that sea turtles might be regarded as an "exhaustible natural resource". This followed from the definition of that term adopted in the Salmon/Herring[388] and Tuna II cases, as well as the ruling of the Appellate Body in Gasoline. It followed also from the fact that sea turtles were included in Appendix I of CITES and protected under the CMS, which the EC considered to be relevant in interpreting the definition to be given to that term in Article XX(g). In the light of the Appellate Body's ruling in the Gasoline case, which confirmed on that point the Salmon/Herring Panel Report, it seemed clear that "related to" in this context meant "primarily aimed at". The United States asserted that Section 609 related to the preservation of sea turtles since it was intended to require that shrimp imported into the United States had not been harvested in a manner harmful to sea turtles. However, it seemed to the EC that the measure at issue was the import ban on shrimps. As was the case for the measures at issue in Tuna II, the desired effect of that measure would only be achieved if the ban on importation of shrimps was followed by changes in practices and policies of the exporting countries with respect to the manner in which shrimp was harvested. Hence, the manner the legislation was framed and the fact that, should exporting countries not change their practices and policies they were no longer allowed to export shrimps to the United States, showed that the purpose of the legislation was to require third countries to conform to the same standards as the United States. The EC noted in this regard that an interpretation of Article XX allowing the United States to impose unilateral trade restrictions in order to enforce its environmental standards would seriously undermine the General Agreement, in particular its vocation to serve as a multilateral framework for trade among Members. The EC argued that "in conjunction with" meant rendering "effective equivalent restrictions on domestic production". The EC noted that the burden of proving that this criteria was satisfied and that the purpose of the US

[388] Panel Report on Canada - Measures Affecting Exports of Unprocessed Herring and Salmon, adopted 22 March 1988, BISD 35S/98.

measures was not merely the creation of equivalent conditions of competition for the domestic fishing industry, rested with the United States.

359. Turning to Article XX(b), the EC agreed, in the light the Tuna II case, that the protection of sea turtles was a policy which could come within Article XX (b). As to the term "necessary", the EC noted that previous panels had interpreted it as meaning that the measures taken were "indispensable" or "unavoidable".[389] Furthermore, these panels emphasised that a Member was bound to use, among the measures reasonably available to it, that which entailed the least degree of inconsistency with other provisions of the General Agreement. The EC submitted that the United States had not demonstrated that, in view of their purpose, the measures taken could be considered to be "necessary" for the protection of animal life. More particularly, the United States had not demonstrated that the import ban was the only possible means of attaining its objectives with respect to sea turtle conservation; it was not clear that unilateral measures were indispensable and that a negotiated solution in respect of measures to protect sea turtles could not be found.

360. The EC considered that the question of compatibility with the chapeau of Article XX needed not be addressed since the United States had not demonstrated that the measures taken fell within one of the exceptions laid down in Article XX. To conclude, the EC considered that the United States measures under Section 609 constituted a quantitative restriction inconsistent with Article XI:1 of GATT 1994 and which were not justified by any of the exceptions in Article XX.

5. Guatemala

361. Guatemala submitted it shared the belief in preserving the environment and ensuring ecological sustainability. It therefore supported measures aimed in that direction, including those designed to preserve threatened species, as in the case of certain species of sea turtles. Guatemala recognized that it was desirable to achieve multilateral understandings in this regard. The WTO was the most appropriate forum for discussing and seeking trade agreements. Guatemala was concerned that the practice of adopting unilateral trade restrictive measures, as a form of disguised and legalized protectionism, could become widespread, especially when the countries applying such measures were those with developed economies which had greatest relative weight in the trade regulatory framework. The fundamental interest of Guatemala in this dispute was to ensure that the measures adopted by the United States to ban imports of shrimp and certain shrimp products did not serve as a precedent for other importing countries in future to apply measures aimed at indirectly and unilaterally restricting access to their market in a manner inconsistent with the provisions of the WTO, and particularly of GATT 1994.

6. Hong Kong

362. Hong Kong submitted that both the US legislation and its implementing measures violated Article XI:1 and could not be justified by Article XX of GATT 1994. According to constant GATT case-law, a Member could attack the legislation of another Member (independent of its eventual application) if the legislation as such did not leave any room for discretion to the implementing domestic authorities. Hong Kong did not intend to address the issue of whether the approach

[389] Panel Report on United States - Restrictions on Imports of Tuna, not adopted, DS29/R, circulated on 10 June 1994; Panel Report on United States - Section 337 of the Tariff Act of 1930, adopted 7 November 1989, BISD 36S/345; Panel Report on Thailand - Restrictions on Importation of and Internal Taxes on Cigarettes, adopted 7 November 1990, BISD 375/200.

preferred by GATT panels so far should be also followed in the future as well. In Hong Kong's view, even if such legislation left discretion to the implementing authorities it could still run counter to that Member's international obligations to the extent that it permitted GATT-inconsistent action: this was the obligation of Members to implement bona fide their international obligations. But even if the most conservative, currently followed, approach were to guide the Panel's considerations in this respect, Hong Kong submitted that Section 609 left no room for discretion to the competent implementing authorities. The wording of Section 609 was unambiguous in this respect. Section 609 left some discretion to the competent US authority to exceptionally allow importation of shrimp and shrimp products from third countries following a certification to this effect: this meant that until the moment when certification was granted, the implementing US authority did not enjoy any discretion. Taking into account the fact that so far, except for the field of anti-dumping duties, GATT case-law knew of no remedies with an ex tunc effect, exporters found themselves in an awkward situation whereby they had to prove their innocence after having been convicted. This was why Section 609 as such should be condemned by the Panel as GATT-inconsistent. There was no doubt that the measures in application of such legislation should be condemned as well. Were, however, the Panel to follow a different route (by accepting, e.g., that the legislation at hand was purely discretionary), it should still find fault with the US measures in application of Section 609 for the reasons elaborated below.

363. Hong Kong submitted that the US arguments did not address specifically the issue whether the measures in question should be recognised as a border or as internal measures. The implication of this approach could be that Article XX of GATT 1994 be recognised as a stand-alone provision. This was, however, clearly not the case. As made plain by its title, Article XX provided the list of permissible exceptions to GATT's obligations laid down in the various provisions of the General Agreement. Moreover, previous GATT panels had consistently approached Article XX as an exception to GATT's obligations. Consequently, recourse to that provision should be made only if inconsistency with a GATT obligation had been previously established.

364. By requiring that "the importation of shrimp or products from shrimp which have been harvested with commercial fishing technology which may affect adversely such species of sea turtles shall be prohibited ...", Section 609 clearly violated Article XI of GATT 1994, since it established a quantitative restriction prohibited by the letter of that provision. Such actions could be eventually justified by recourse to the exceptions mentioned in the GATT and not to any other provisions. In such a case, the Member wanting to avail itself of such a possibility carried the burden of proof to demonstrate that an otherwise GATT-inconsistent measure could be justified by recourse to a GATT provision justifying such departures. In this context, it seemed that the only provision that could help justify the measure at hand was Article XX. Hong Kong submitted that the United States could not justify its action under Article XX in this case and urged the Panel to conclude accordingly. In Hong Kong's view, the US measures violated the chapeau of Article XX, did not meet the requirements of Article XX(b) as they were not necessary to protect animal life, and did not fall under Article XX(g).

365. Hong Kong recalled that, in its first interpretation of the chapeau of Article XX, the Appellate Body had noted that panels would first have to examine whether an allegedly GATT-inconsistent measure passed the test mentioned in the chapeau and then establish whether the other conditions (e.g., the "necessity" test in Article XX(b) of GATT) were met as well, in order to pronounce on the consistency (or inconsistency) of the measure under examination. Hong Kong agreed that this approach was in conformity with the wording of the chapeau: "Subject to ...". Hong Kong considered that the two requirements contained in the chapeau of Article XX meant that a WTO Member which wanted to avail itself of such a possibility would have to ensure that, for example in the context of environmental protection, it set standards which would be observed by domestic and

foreign products alike: in other words, the chapeau of Article XX of GATT contained an Articles I and III-type obligation addressed to Members.[390] This in turn meant that Members wanting to avail themselves of the possibility offered in Article XX would have to establish certainty concerning the competitive conditions in their market.

366. In stating that the chapeau of Article XX included an Articles I and III -type obligation, Hong Kong meant that once standards had been set by a Member in pursuance of an objective mentioned in Article XX, such standards would have to be observed in respect of both domestic and foreign products. In other words, while such standards of themselves constituted exceptions to the Member's obligations elsewhere under the GATT, their application to all Members had to be on equal footing (Article I), and to apply to domestic and foreign products alike (Article III). The GATT reflected at this point the lack of harmonization of the various policies mentioned in the body of Article XX among Members. Moreover, the GATT was neither an instrument for harmonization (i.e. all Members should pursue identical health/environmental policies), nor an instrument for deregulation (i.e. no Member could pursue any such policy). To the contrary, each Member pursuing its own health or environmental policy could justifiably depart from GATT obligations provided that it respected the conditions laid down in Article XX. In this sense, Article XX gave the "green light" to regulatory diversity among Members with respect to policies mentioned in its body. Consequently, Members wanting to avail themselves of such a possibility could reveal their "preferences". Such revealed preferences, though, would have to be enforced erga omnes, i.e. they would have to be respected for both domestic and foreign products.

367. Hong Kong argued that the US legislation failed to meet this requirement. Foreign producers, even after they had provided documentary evidence according to which they demonstrated that their regulatory program was comparable to that adopted by the United States, would still have to show that their average rate of incidental taking of sea turtles was comparable to that of US vessels. The word "and" which figured between the first two conditions mentioned in the supplementary information contained in the 1996 Guidelines for determining comparability of national programmes with the US programme made this point clear. Sub -section II of the Guidelines stipulated that incidental taking would be deemed comparable provided exporting governments required their fishing vessels to use TEDs in a manner comparable in effectiveness to those used in the United States. In Hong Kong's view, the United States was clearly not applying the same standards to foreign and domestic products, in that domestic producers did not have to meet any specific standard. Furthermore, the information on incidental taking would reach exporters to the US market only ex post and never ex ante. This meant foreign producers would continuously be in a state of uncertainty as far as their export possibilities to the US market were concerned. As mentioned above, it was precisely this form of uncertainty that the chapeau of Article XX aimed to outlaw.

368. Furthermore, under the US legislation, importation of shrimps harvested by individual shrimp trawl vessels in uncertified countries was prohibited even if de facto the vessels were fitted with the required TEDs. This meant individual foreign producers, even after having fully met the US requirements, would not be allowed to export shrimps to the United States. Hong Kong considered that the US measures were applied in a manner that constituted an arbitrary and unjustifiable discrimination between countries where the same conditions prevailed, thus violating the chapeau of Article XX. Were the Panel to agree with Hong Kong on the interpretation of the chapeau of Article XX and, consequently, find that the US measures at hand were inconsistent with the requirements of the chapeau, it needed not examine whether the US measures were justifiable under Article XX(b) or (g). However, were the Panel to adopt a different approach, Hong Kong would still

[390]Hong Kong noted these were the views of John H. Jackson, in The World Trading System (1989).

urge it to find a case of inconsistency in that the US measures did not meet the requirements of Article XX(b), and Article XX(g) was not applicable to the measur es.

369. Hong Kong noted that, for a measure to be justified under Article XX(b), it must be deemed necessary to achieve the stated objective (revealed preference). According to constant GATT case-law in this field, the "necessity" requirement was interpreted as obliging Members to take the least restrictive option in order to achieve the stated objective. The US action at hand was at the other end of the spectrum, since it amounted to an embargo. It should be pointed out that the panel reports on Tuna I and Tuna II, which concerned actions strikingly similar to the one at hand, had found the US measures to be GATT-inconsistent. Moreover, it was questionable whether TEDs were a necessary option in order to achieve the stated objective. Article XX imposed on Members an obligation of result: they could use any measure they deemed necessary in order to achieve the stated objective. This essential characteristic of Article XX should be preserved when Members adopting measures were about to establish equivalence of foreign standards to their own ones. This approach was in full conformity with the fact that the WTO did not impose on its Members harmonized approach to the policies mentioned in Article XX. Consequently, to impose TEDs on foreign producers who could, by means of other methods, reach an incidental rate of taking comparable to that reached by US vessels, would clearly be inconsistent with the spirit of Article XX. In other words, to the extent that alternative measures could be used without prejudging the desired level of the attainment of the objective, they should be accepted. This point was in line with previous GATT panel reports.[391]

370. Hong Kong submitted that Article XX(g) was not applicable to the case at hand. Article XX(b) and Article XX(g) established two different legal standards; while the first one established the "necessity" requirement, the second merely requested that a measure be related to (i.e. without it being necessary) a stated objective. If there was an overlap in the coverage of the two paragraphs, then obviously Article XX(b) would have fallen into desuetudo, since Members wanting to avail themselves of the possibility of Article XX would always prefer the framework of XX(g) which established a much less stringent standard. Moreover, the wording of Article XX(g) "exhaustible natural resources" seemed to support their systemic conclusion: "exhaustible" meant "non reproducible". This interpretation was in full conformity with the Vienna Convention, whose principle of effective treaty interpretation required that by interpreting an agreement one should ensure that no term become redundant. An interpretation condoning an overlap between the coverage of Article XX(b) and XX(g) run counter to this principle.

371. Hong Kong argued that the US view on the absence of any jurisdictional limitation in the body of Article XX(b) and (g) relied on an erroneous application of public international law. The GATT was an international agreement and should be interpreted in accordance with customary principles of interpretation (Article 3.2 DSU). The GATT/WTO system had no jurisdictional clause. It did not, however, operate in a vacuum. There was no a priori division of jurisdiction at the international plane. Jurisdiction was defined at the domestic level. Public international law could only impose limits to such definitions. This principle was reflected in a myriad of instruments which dealt with this issue. Multilateral environmental agreements (MEAs) belonged to this category. For some externalities to be effectively addressed (and this was predominantly the case in the field of environmental protection), states should have recourse either to extraterritorial application of domestic laws, or to international treaties. The former could violate the relevant rules of public international law; the latter constituted a voluntary transfer of sovereignty. Hence, MEAs also defined the

[391] Panel Report on United States - Section 337 of the Tariff Act of 1930, adopted on 7 November 1989, BISD 36S/345, paragraph 5.26.

jurisdictional reach. It could be said that MEAs in effect served to address such externalities in a way consistent with public international law. This was also a clear recognition of the territorial limitations in Article XX, as GATT was an international treaty and operated within the realm of public international law. To conclude, there was no room for extraterritorial application of domestic laws in the context of Article XX.

372. As to the relevance of CITES to the present case, Hong Kong submitted that examination of any obligations under that Convention was outside the remit of the Panel because the US had not cited any such obligations as justifications for their measures. In any case, it should be noted that CITES concerned the regulation of trade in endangered species, and that the case before the Panel did not concern trade in endangered species but rather trade in shrimp. Also under no circumstances should incidental taking of sea turtles be equated to trade.

7. Japan

373. Japan noted there had been a rising global awareness of the importance of conservation of endangered species and exhaustible natural resources. When addressing transboundary or global environmental problems, Japan believed the solution should be sought in a multilateral framework and attached great importance to Principle 12 of the Rio Declaration that called for actions based on international consensus and stipulated the avoidance of unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country. Based on this conviction, Japan had been implementing appropriate domestic policy and measures and participating actively in international cooperative actions to tackle transboundary or global environmental problems. Japan shared the recognition that sea turtles were endangered species included in Appendix I of CITES and were in serious need for international conservation actions. Numerous measures had been taken by Japan to protect them, including the restriction on capture of sea turtles, the conservation of nesting grounds and a programme for the enhancement of reproduction. Japan also expected that other countries would take appropriate actions to ensure the international effort for conservation of sea turtles.

374. Japan noted that it had no commercial shrimp trawl vessels or any other type of trawl vessels to catch shrimps, and a very small amount of shrimps were taken incidentally by vessels operating for other fish. Consequently, any occurrence of incidental killing or serious injury of sea turtles had not been recognized in Japanese fishing activities. Given this situation, the Government of Japan had requested on several occasions that its shrimp export to the United States should be categorized separately from those subject to the US legislation. Nonetheless, the United States had gone ahead and imposed a ban covering fishing activities of Japanese vessels. Japan argued that the import ban on shrimp and shrimp products - the species not subject to protection - pursuant to Section 609 had been imposed as trade sanctions for countries whose vessels did not use TEDs, and was inconsistent with the basic principles of the WTO and obligations of the United States under Articles I:1, XI:1 and XIII:1 of GATT 1994, and could not be justified under Article XX of GATT 1994. The US measures in dispute were also unacceptable extraterritorial applications of domestic conservation policies.

375. Japan submitted that the US import prohibition on shrimp and shrimp products pursuant to Section 609 violated Article XI:1, which stipulated a general elimination of quantitative restrictions. The measure was also inconsistent with Articles I:1 and XIII:1. The United States imposed the import ban on shrimp and shrimp products only from the countries whose vessels did not use TEDs. However, based on the finding of the Tuna II, the difference in practices, policies and methods of harvesting shrimp did not have any impact on the inherent character of shrimp and shrimp products as products. Thus, the import ban on shrimp and shrimp products under Section 609 accorded a different treatment to "like products". However, in view of the increased awareness of the importance

of policy objectives of environmental protection and resource conservation, it should be noted that certain cases required differential treatment according to process and production methods (PPMs) to tackle global and transboundary environmental problems. Japan believed that the international community should further address the issue of PPM in order to avoid conflict between WTO rules and multilateral efforts to tackle global and transboundary environmental issues.

376. Noting that Article XX had to be interpreted on a case-by-case basis, as stated by the Appellate Body in the Gasoline case, Japan was not convinced that the US import ban under Section 609 was "necessary" within the meaning of Article XX(b). Japan did not contest the US argument that the installation of TEDs might be an effective method for conservation of sea turtles and that the US intention to implement the measure pursuant to Section 609 was to achieve that goal. However, Japan doubted that it was necessary to impose an import ban on shrimp or shrimp products from countries whose vessels did not use TEDs. As in the Tuna cases, the import ban could not possibly, by itself, further the United States objective of protecting the life of sea turtles. This point was vividly illustrated when the ban applied to non-certified countries regardless of whether the shrimps were caught in waters inhabited by sea turtles or of whether or not TEDs were actually installed and used. Secondly, Japan did not believe that there was no other alternatives which could contribute to the same objective but were consistent or less inconsistent with WTO provisions. Considering that the United States itself acknowledged that the US efforts to promote technology transfer had successfully facilitated the international situation where the use of TEDs had become a multilateral standard, the United States claim that there was no alternative available other than the import ban was difficult to accept. While accepting that Article XX(b) might not oblige Members to take specific measures such as negotiations of international cooperation arrangements with the countries concerned, this did not mean that the US import ban was the only alternative and justified as such under that provision.

377. As to the US argument that the measures under Section 609 met the requirements of Article XX(g), Japan did not challenge the US view that sea turtles were "exhaustible natural resources" within the meaning of that provision, but considered that the extraterritorial application of the US measure in the form of an import ban seriously impaired the right of Members under GATT 1994. In Japan's view, the control over the fishing activities of foreign vessels in the exclusive economic zones of a country did not constitute extraterritorial application of domestic measures; this was supported by the general principle that an individual nation should bear responsibility for conservation and management of fisheries resources in its exclusive economic zone pursuant to the United Nations Convention on the Law of the Sea. However, imposing an import ban designed to force other countries to change their policies concerning the conservation of sea turtles under the jurisdiction of those countries was clearly beyond the scope envisaged by Article XX(g), for the reasons explained in the two Tuna cases. In this regard, Japan supported the remark of Appellate Body in the Gasoline case that WTO Members' autonomy to determine their own policies on the environment, including its relationship with trade, was circumscribed by the need to respect the requirements of the General Agreement and the other covered agreements. Moreover, though not clearly stated, the United States appeared to rely its claim on CITES. In this regard, Japan argued that CITES prohibited the international trade of sea turtles, but did not regulate their capture. Therefore, the United States could not rely on CITES for justifying the requirement that other countries used TEDs.

8. Nigeria

378. Nigeria stated that it shared the unanimous concern for the conservation and protection of sea turtles. However this dispute did not relate to the desirability of protecting and conserving sea turtles but rather to the methods and measures for doing so. In this regard, Nigeria's position was defined by and would remain committed to paragraphs 169 and 171 of the 1996 Report of the Committee on Trade and Environment to the Singapore Ministerial Conference. [392]

9. Philippines

379. The Philippines submitted that it exported shrimp and shrimp products in quantities and values which it deemed substantial. Undue interference with market forces resulted in distortion and adversely affected the Philippines. This dispute likewise had systemic implications. Therefore, as exporter and as a WTO Member, the Philippines had a substantial interest in the matter before the Panel. In line with "judicial economy", an approach ratified by the Appellate Body, the Philippines' arguments focused on specific issues the resolution of which was sufficient, in the Philippines' view, to resolve this dispute without the necessity of delving into other issues.

380. The Philippines argued that proper resolution of this dispute would be expedited by prior inquiry into the legal characterization of Section 609, as enacted, interpreted, and implemented. If it was a "point of importation" measure (see Note Ad Article III of GATT 1994), its consistency with GATT 1994 was appropriately assessed basically in light of the national treatment obligation specified in Article III. Otherwise, such consistency was appropriately assessed primarily in light of other provisions of GATT 1994, including, but not limited to, the obligations specified under the provisions of Article XI and Article I.

381. The products subject to regulation under Section 609 were "shrimp or products from shrimp which have been harvested with commercial fishing technology which may affect adversely" the species of sea turtles "the conservation of which is the subject of regulations promulgated by the Secretary of Commerce on June 29, 1987". The Philippines noted that, for purposes of this dispute, the United States had no relevant internal "law, regulation or requirement of any kind" affecting shrimp or products from shrimp as products. There was no relevant US law, regulation or requirement affecting the "internal sale, offering for sale, purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing or use of products in specified amounts or proportions" (Article III:1). As products, there was no distinction whatsoever between shrimp and shrimp products harvested or processed elsewhere and the "like domestic

[392]Report (1996) of the Committee on Trade and Environment, WT/CTE/1, 12 November 1996. Paragraph 169 of the Report states: "WTO Member governments are committed not to introduce WTO-inconsistent or protectionist trade restrictions or countervailing measures in an attempt to offset any real or perceived adverse domestic economic or competitiveness effects of applying environmental policies; not only would this undermine the open, equitable and non-discriminatory nature of the multilateral trading system, it would also prove counterproductive to meeting environmental objectives and promoting sustainable development. Equally, and bearing in mind the fact that governments have the right to establish their national environmental standards in accordance with their respective environmental and developmental conditions, needs and priorities, WTO Members note that it would be inappropriate for them to relax their existing national environmental standards or their enforcement in order to promote their trade. The CTE notes the statement in the 1995 Report on Trade and Environment to the OECD Council at Ministerial Level that there has been no evidence of a systematic relationship between existing environmental policies and competitiveness impacts, nor of countries deliberately resorting to low environmental standards to gain competitive advantages. The CTE welcomes similar policy statements made in other inter-governmental fora."

Paragraph 171 of the Report states: "The CTE notes that governments have endorsed in the results of the 1992 U.N. Conference on Environment and Development their commitment to Principle 12 of the Rio Declaration that "Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global problems should, as far as possible, be based on an international consensus." There is a clear complementarity between this approach and the work of the WTO in seeking cooperative multilateral solutions to trade concerns. The CTE endorses and supports multilateral solutions based on international cooperation and consensus as the best and most effective way for governments to tackle environmental problems of a transboundary or global nature. WTO Agreements and multilateral environmental agreements (MEAs) are representative of efforts of the international community to pursue shared goals, and in the development of a mutually supportive relationship between them due respect must be afforded to both."

product" (shrimp and shrimp products harvested and processed in the United States by vessels or nationals subject to the jurisdiction of the United States). Thus, Section 609 was not a "point of importation" measure within the context of Note Ad Article III of GATT 1994. In determining whether certain regulations would qualify as "point of importation measures" under Article III, two as yet unadopted GATT panel decisions (Tuna I & II) ruled that measures must in some way have an effect on the regulated product. Based on this distinction, these panels found that an attempt at the point of importation to regulate a product based on the manner in which it was produced, a so-called process and production method, would not have a sufficient effect on the product to be considered an internal measure enforced at the point of importation. The Philippines further argued that the relevant US internal "law, regulation or requirement" was a regulatory programme governing the incidental taking of sea turtles by US vessels in the course of such harvesting. While there could be a difference in the incidental taking rate of sea turtles in the course of harvesting shrimp based on the technology used, there was no distinction, as such, between shrimp harvested using a particular technology and shrimp harvested using another technology. For purposes of the resolution of this dispute, Section 609 was not a "point of importation" measure.

382. The Philippines submitted that Section 609, by subjecting the importation of shrimp and shrimp products into the United States to a certification requirement, was a restriction "on the importation of any product of the territory of any other contracting party" in violation of Article XI:1 of GATT 1994. At the same time , Section 609 discriminated in favour of Members which had been so certified by allowing the importation of "like product". If at all discrimination was permissible under an otherwise authorized quantitative restriction regime, the basis of such discrimination had to have in some way an effect on the regulated product as product. The Philippines further argued that, since there was no distinction between the meaning of "like product" in Article XIII, and "like product" in Article III, Section 609 was likewise administered in a discriminatory manner, in a manner contrary to Article XIII:1.

383. The Philippines further argued that Section 609 accorded in favour of Members which had been certified the opportunity to export shrimp and shrimp products to the United States, while at the same time withholding the same opportunity from Members not so certified, in violation of the basic obligation of WTO Members to "immediately and unconditionally" accord the same "advantage, favour, privilege" to the "like product originating in or destined for the territories" of all other Members (Article I). Again, if at all discrimination was permissible, the basis of such discrimination had to have in some way have an effect on the regulated product as products. Since there was no distinction between products of Members which had not been certified and the like products of Members so certified, Section 609 was in violation of the MFN treatment obligations contained in Article I.

384. The Philippines submitted that the SPS Agreement was the authoritative and definitive interpretation by WTO Members for the coverage of Article XX(b) of GATT 1994. The SPS Agreement provided, in particular, that "the provisions of GATT 1994 which relate to the use of sanitary or phytosanitary measures, in particular the provisions of Article XX (b)" (Preamble) and that "sanitary or phytosanitary measures which conform to the relevant provisions of this Agreement shall be presumed to be in accordance with the obligations of the Members under the provisions of GATT 1994 which relate to the use of sanitary or phytosanitary measures, in particular the provisions of Article XX (b)" (Article 2.4). In clear and unequivocal terms therefore, the SPS Agreement categorically declared that Article XX(b) of GATT should be interpreted in light of the "use of sanitary or phytosanitary measures". The Philippines argued that it needed no elaboration to establish that Section 609, which sought to regulate the entry into the United States of shrimp and sh rimp products based on the incidental taking of sea turtles in the course shrimp trawl operations, was not a

sanitary or phytosanitary measure, as defined in Annex A of the SPS Agreement. Therefore, Article XX(b) of GATT 1994 was not applicable to this dispute and could not be invoked as a defense by the United States.

385. Referring to arguments made by India, Pakistan and Thailand, the Philippines argued that Article XX(g) of GATT 1994 was not applicable. In the Philippines' view, all animals were "renewable" natural resources in that they were capable of reproduction. At the same time, all animals were subject to extinction. Animals were thus "renewable" natural resources subject to extinction. Inanimate natural resources, which were not capable of reproduction, were "non-renewable" and were "exhaustible". For purposes of interpreting Article XX(g), a distinction had to be made between (a) the state of being renewable and subject to extinction, and (b) the state of being non-renewable and therefore "exhaustible". Otherwise, if no such distinction were made, and both renewable and non-renewable natural resources were intended to be covered by Article XX(g), the word "exhaustible" qualifying "natural resources" would be unnecessary. The word "exhaustible" could then very well be deleted without changing the meaning of Article XX(g). It was a basic rule of legal interpretation that every word had to be accorded its reasonable meaning, and to assume that no word was unnecessary. The Philippines further observed that, while some species of sea turtles were indeed endangered species, this was not relevant for purposes of interpreting and applying Article XX(g). The state of being an endangered specie was not an inherent state; rather, it was a circumstance brought about by several factors, and was therefore a dynamic factual concept. On the other hand, being "exhaustible" was an inherent state, a static legal concept. While a legal text might seek to cover a potentially infinite number of circumstances, its meaning did not change depending on the circumstances. Therefore, animals were not "exhaustible natural resources" within the context of Article XX(g). Even assuming that animals were "exhaustible" natural resources (which would mean that Article XX(g) was interpreted so as to include both renewable and non-renewable natural resources), Article XX(g) could not be invoked in this dispute because there was a specific rule applicable to animals, i.e. Article XX(b). Under the principle of lex specialis, rules applicable to a specific category forming part of a general category prevailed over the rules applicable to the general category as far as the specific category was concerned. And as earlier stated, Article XX(b) was applicable only in the context of sanitary and phytosanitary measures. Therefore, Article XX(g) was likewise not applicable to this dispute and could not be used by the United States as a defense.

10. Singapore

386. Being equally concerned with the continued survivability of endangered sea turtles and as a party to CITES, Singapore was sympathetic to the US efforts to conserve sea turtles. As part of its overall conservation efforts, Singapore prohibited the operation of trawl-nets in its territorial waters, as well as the taking, netting, keeping or killing of local wildlife, which included sea turtles. Whilst applauding the US policy to conserve sea turtles, Singapore was of the view that the imposition of the embargo under Section 609 was over-reaching. It was a barrier to legitimate trade and disregarded the expectations of WTO Members under the General Agreement as to the competitive relationship between their products and those of other Members. Singapore, therefore, requested the Panel to find that the US embargo on the importation of certain shrimp and shrimp products pursuant to Section 609 was inconsistent with the US obligations under GATT Articles XI:1, XIII:1 and I:1 and was not justified under GATT Article XX(b) and (g). Singapore urged the US to bring it to conformity with their obligations under the GATT. Besides having substantial trade interest, Singapore was also concerned with the systemic implications of the US extra-territorial application of domestic conservation policy on the multilateral trading system.

387. Although Singapore was not a shrimp harvesting nation, it had substantial trade interests in this dispute. In 1996, exports of shrimp and shrimp products to the United States amounted to S$13.5 million. The United States was Singapore's single largest market for shrimp and shrimp products accounting for almost 10 per cent of its world-wide exports of shrimp and shrimp products of S$161 million. Most of these exports were re-exports. Singapore observed that its exports of shrimp and shrimp products had been adversely affected by the embargo. From the effective date of the embargo on 1 May 1996 to 30 April 1997, exports had fallen by 66 per cent to S$8.2 million from an export value of S$24.2 million during the comparable preceding twelve months from May 1995 to April 1996.

388. Singapore argued that, since Section 609 banned the importation of shrimp and shrimp products from countries that harvested shrimp with commercial fishing technology which could affect sea turtles, the embargo, which was not a duty, tax nor charge, was inconsistent with Article XI:1. There was no difference between shrimp harvested in aquaculture facilities and those that were harvested in the open seas: they were like products. There was also no difference between shrimp harvested using TED technology and shrimp harvested in the open seas by other means: they, too, were like products. By imposing a ban on the importation of shrimp and shrimp products from certain Members but allowing the importation of like products from other Members, Section 609 discriminated between like products, in a manner contrary to the requirements of Article XIII:1. Finally, Section 609 contravened Article I:1 because it allowed the importation of shrimp and shrimp products from certain Members but prohibited such importation from other Members. It did not grant the same advantage, favour, privilege or immunity to like products originating from different Members.

389. Turning to Article XX of GATT 1994, Singapore observed that the long-standing practice of panels had been to interpret this provision in a manner that preserved the basic objectives and principles of the GATT. If Article XX were interpreted to permit Members to deviate from obligations under the GATT by taking trade measures so as to force other Members to change their policies within their jurisdiction, including their conservation policies, the balance of rights and obligations among Members, in particular the right of market access, would be seriously impaired. Under such an interpretation, the GATT could no longer serve as a multilateral framework for trade (see Tuna II). Singapore asked the Panel to bear this in mind when considering whether the embargo under Section 609 fell within the permitted exceptions of Article XX(b) and (g). Singapore could not agree with the United States that the embargo was justified under GATT Article XX(b) and (g).

390. As to Article XX(b), Singapore submitted that the measure for which the exception was being invoked was not necessary and did not conform to the requirements of the introductory clause of Article XX. Singapore noted that previous panels had concluded that a Member could not justify a measure inconsistent with another GATT provision as "necessary" if an alternative measure which it could reasonably be expected to employ and which was not inconsistent with other GATT provisions was available to it. In cases where a measure consistent with other GATT provisions was not readily available, a Member was bound to use, among the measures reasonably available to it, that which entailed the least degree of inconsistency with other GATT provisions. [393] Singapore observed that the United States applied the Appellate Body's reasoning in the Gasoline case to argue that whether a measure was "necessary" under Article XX(b) must be determined "on a case-by-case basis, by

[393] Panel Report on United States - Section 337 of the Tariff Act of 1930, adopted 7 November 1989, BISD 36S/345, paragraph 5.26; Panel Report on Thailand - Restrictions on Importation of and Internal Taxes on Cigarettes, adopted 7 November 1990, BISD 37S/200; Panel Report on United States - Restrictions on Imports of Tuna, not adopted, DS29/R, circulated 16 June 1994; Panel Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/R.

careful scrutiny of the factual and legal context in the given dispute". According to the United States, Article XX(b) was not a "least inconsistent measure" test. Singapore was of the view that the rationale behind the Appellate Body's reasoning was to avoid any subversion of affirmative GATT obligations through an overly expansive reading of Article XX exceptions or conversely, emasculation of Article XX exceptions through an overly broad reach of GATT obligations. Bearing this in mind, the decision of earlier panels on the necessity test was consistent with the Appellate Body's reasoning. Otherwise, Members could easily circumvent their GATT obligations even if there were measures that were less inconsistent with their GATT obligations. Under such circumstances, the GATT could not effectively serve as a multilateral framework for trade among contracting parties. The United States had not discharged its burden of proving that the embargo under Section 609 was necessary. It had not demonstrated that it had exhausted all other options available to it to pursue its turtle protection objectives through measures consistent with the GATT. In any event, the panel in the Tuna II case had concluded that measures taken so as to force other countries to change their policies, and that were effective only if such changes occurred, could not be considered necessary for the protection of animal life of health in the sense of Article XX(b). The embargo under Section 609 clearly fell within this category of measures.

391. Singapore observed that the introductory clause of Article XX set out further restrictions on the use of GATT-inconsistent measures. The fundamental theme was to be found in the purpose and object of avoiding abuse or illegitimate use of the exceptions to substantive rules. [394] Measures should not be a means of arbitrary or unjustifiable discrimination, nor a disguised restriction on international trade. For Singapore, the measure contained in Section 609 was an arbitrary or unjustifiable discrimination. There was arbitrary or unjustifiable discrimination in respect of the period of notice given to different countries to employ TED technology. In the case of the wider Caribbean region, a three-year phase-in period had been given. However, other countries had been allowed only a four-month period to institute comparable programmes. The United States contended that the difference in notice period was directly related to improvements in TED technology, lowering of costs and greater availability of TEDs. However, this assumed that all countries were able to implement comparable turtle conservation programmes within four months. This also assumed that all governments were able to inform and train their shrimp harvesters within four months. For these reasons, the embargo did not meet the requirements of Article XX(b).

392. Regarding Article XX(g), Singapore submitted that the measure for which the exception was being invoked did not relate to the conservation of exhaustible natural resources and/or was not made effective in conjunction with restrictions on domestic production or consumption. Furthermore, the measure did not conform to the requirements of the introductory clause of Article XX. Previous panels had concluded that the term "relating to" should be taken to mean "primarily aimed at". [395] This interpretation was also accepted by the United States in the Gasoline case. Though not treaty language nor a simple litmus test, as clarified by the Appellate Body in that case, the terms nonetheless provided valuable guidance when considering the balance of rights under the GATT. In the context of this dispute, it meant that the embargo was to be primarily aimed at the conservation of natural resources. Section 609 was clearly an attempt by the United States to force other countries to change their policies. Therefore, it could not be said to be primarily aimed at the conservation of exhaustible natural resources. A similar conclusion had been reached by the Tuna II Panel.

[394] Appellate Body Report on United States - Standards for Reformulated and Conventional Gasoline, adopted 20 May 1996, WT/DS2/9.

[395] Panel Report on Canada - Measures Affecting the Exports of Unprocessed Herring and Salmon, adopted 22 March 1988, BISD 35S/98, paragraph 4.6; Panel Report on United States - Restrictions on Imports of Tuna, not adopted, DS29/R, circulated 16 June 1994.

393. Applying the reasoning of the Tuna II Panel Report to this case, Singapore considered that the embargo could not be regarded as primarily aimed at rendering effective restrictions on domestic production or consumption since it was clearly directed at the conservation policies of other countries and could not be effective unless such policy changes occurred. Singapore observed that a US official had submitted that the current imposition of the embargo under Section 609 could jeopardise efforts for the world-wide protection of sea turtles. It had also been pointed out by other US officials that proficiency in the use of TEDs would generally take time because of the need for significant training and practice. This was the case in the United States during the mid-1980s, and it was the case in the Wider Caribbean Area in the early 1990s, and would likely be the case in the other countries now. In other words, the embargo as it was now being enforced world-wide would not be effective. Singapore noted that in the Gasoline case, the Appellate Body had felt that the phrase "if made effective in conjunction with restrictions on domestic production or consumption" was not intended to establish an empirical "effects test". However, it also clarified that it was not suggesting that consideration of the predictable effects of a measure could never be relevant. It concluded that the phrase was a requirement of even-handedness in the imposition of restrictions, in the name of conservation upon the production or consumption of exhaustible natural resources. Applying this reasoning, the embargo at issue also failed to meet the requirements of the exception. It was not implemented even-handedly. The embargo was targeted at the entire shrimp imports from a foreign country rather than at particular shipments. Domestically, the United States only imposed the prohibition on the harvests of individual vessels that did not employ TEDs during harvesting. This strongly suggested that the interests of foreign harvesters were given lesser consideration than those of domestic harvesters. In Singapore's opinion, this was clearly not even-handed.

394. With respect to the chapeau of Article XX, Singapore submitted that, for the same reasons highlighted under in paragraph 4.66, the embargo was an arbitrary or unjustifiable discrimination. Therefore, it did not meet the requirements of Article XX(g).

395. Singapore observed that the US government had admitted before the CIT that Section 609 might be inconsistent with the GATT. It had acknowledged that there were very serious questions relating to the consistency of Section 609 with United States' GATT obligations and that a GATT challenge would likely lead to the conclusion that the embargo provisions were violating GATT principles. Indeed, by objecting to the US court decision requiring the application of Section 609 to TED-caught shrimp, the United States appeared to recognise that the embargo did not comply with Article XX provisions. Singapore submitted that the issues raised in the present controversy were identical in all material respects to the Tuna II dispute. The United States did not attempt to distinguish such proceedings or contend that its shrimp embargo complied with Article XX(b) and (g) exceptions as interpreted by that Panel. Instead, the United States urged this panel to reject the interpretation, analysis and findings of the prior Panel. However, the United States did not contest the validity of the prior panel's central finding that Article XX requirements were violated by measures that embargoed imports without regard to whether particular products had been harvested in a manner that could harm the species intended to be protected.

396. Singapore subscribed to Principle 12 of the Rio Declaration and Section B of Agenda 21, which clearly stated that unilateral action should be avoided and that environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on international consensus. This principle found consensus in the WTO Committee on Trade and Environment.

11. Venezuela

397. Venezuela submitted that Section 609 was inconsistent with GATT 1994 and not covered by its general exceptions. Venezuela considered this case to be particularly important because the United States argued that the provisions of Article XX, paragraphs (g) and (b), did not impose jurisdictional limitations on the measures covered by these paragraphs. Venezuela disagreed with that interpretation and had already expressed it on previous occasions (in particular as a third party in the two Tuna disputes). In Venezuela's opinion, the fact that the text of the provisions of Article XX did not refer expressly to the territorial jurisdiction of the measures covered by these exceptions did not imply that they could be invoked without any limitations. Furthermore, although a Member could adopt measures affecting common natural resources, such as migratory species, or measures affecting the activities of its nationals outside its own territory, this was not to be interpreted as entitling them to legislate on the activities of nationals of other Members. To claim otherwise would be to accept that a Member could apply trade restrictions to other Members simply because they maintained different domestic policies. This needed not be confined to environmental policies but could also extend to other policies in which states exercised their sovereign right to legislate in accordance with their own specific circumstances, as happened in the fields of health, education and other social policies. Moreover, the measure under consideration by this Panel was based on the way in which shrimp were fished and not on shrimp as a product. In Venezuela's view, the WTO provisions did not cover measures based on production processes and methods when these were not incorporated in the product itself. Venezuela believed that the Panel should maintain this approach, because otherwise there would be a risk that Members could discriminate in their treatment of similar products that were basically distinguished by the production processes used in manufacturing or obtaining them. Venezuela considered, therefore, that the Panel should weigh very carefully the implications of this case for the multilateral trading system.

398. Venezuela was not directly affected by the challenged measure. Venezuela required the use of TEDs by its shrimp fishing fleet as a part of a national and regional policy for protecting sea turtles. It was also the depository country of the Inter -American Convention for the Protection of Sea Turtles. However, in this respect it was worth pointing out that the Convention had a provision stipulating that parties should act in accordance with the WTO Agreement, particularly the TBT Agreement and Article XI of the GATT 1994. Venezuela's interest in this case was thus a systemic one, because it considered the unilateral, extra-jurisdictional application of measures based on production processes and methods not incorporated in products, aimed at imposing a country's own domestic policies on other Members, to be unacceptable and incompatible with WTO rules. There were better, compatible alternatives that should be used to attain the objectives of environmental protection: fundamentally, multilateral cooperation among states and technical assistance.