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PASSING THROUGH ENEMY WATERS: MARINE TURTLES IN JAPAN

Margaret Dupree†

I. INTRODUCTION

When the Environment Agency was created in 1971 under the office of the Prime Minister, its primary considerations did not include the management, conservation, or protection of wildlife species. Rather, the Environment Agency had the immediate task of instituting measures to control industrial pollution, which had been poisoning the Japanese people and their food resources. Indeed, people had suffered dearly when industrial development forged a new economy. Poisoning from arsenic, lead, and cadmium as well as an outbreak of various pulmonary diseases associated with air pollution became the subjects for the "big four" pollution cases.¹ Years later, while poison victims continue litigation to seek compensation in court, pollution control technologies have been put into place, and Japanese companies have decreased the outpouring of domestic industrial pollution.² The Environment Agency has apparently succeeded in its initial task.³

Action in today's Environment Agency seems to indicate that domestic wildlife protection is of growing importance in Japan. For example, the Wild Animal Protection Division was created in 1986. Although their tasks are various and numerous, the offices tend to be understaffed.⁴ Despite its effort to address

† Attorney-at-Law. This article is based upon research conducted during 1993-1994 when the author was a visiting scholar at the International Center for Comparative Law and Politics, at the Faculty of Law, The University of Tokyo, Japan. The author wishes to thank the Japan Society for the Promotion of Science and the National Science Foundation for sponsorship and funding of the research.

1. JULIAN GRESSER ET AL., ENVIRONMENTAL LAW IN JAPAN 29-30 (1981).

2. *Id.* at 41-42.

3. *Id.* at 29.

4. The Wildlife Protection Division conducts surveys of domestic threatened fauna and flora and conducts programs to rehabilitate some endangered populations. Rehabilitative efforts have thusfar included an artificial breeding program for the Japanese Crested Ibis and habitat improvement programs for the Iriomote Wildcat, the Short-tailed Albatross, Blakiston's Fish-owl and Japanese Crane. Also, the

wildlife conservation, the Environment Agency is hindered by its position relative to powerful ministries. The Environment Agency is engaged in an ongoing campaign to gain power vis-a-vis powerful ministries. This agency-ministry competition, known as "sectionalism", is a dominant theme in Japanese policy-making generally, and the legal structure affecting wildlife in Japan is no exception. Since the Environment Agency has to consult and compete with industry and as well as other ministries, its power depends upon an ability to gain the support of the very entities it attempts to regulate. Various Ministries such as the Ministry of International Trade and Industry ("MITI"), the Ministry of Construction, and the Ministry of Telecommunications have different and often conflicting interests which do not complement the Environment Agency's efforts to create a coordinated wildlife legal scheme. For example, MITI regulates trade in products involved in marine turtle processing industries, the Ministry of Construction regulates construction in areas and in ways that affect turtle nesting behavior, and the Ministry of Telecommunications regulates the scientific use of radio transmitters to track migrations of marine turtles.

Pressure on Japan to conform to a heightened international focus on wildlife conservation and protection is slowly forcing the government bureaucracies to forge a domestic scheme which will coordinate with international conservation efforts.⁵ For example, as will be discussed later, Japan joined the Convention on Trade in Endangered Species ("CITES"), yet retained reservations on several Appendix I species until quite recently. However, the Japanese government has since ended several reservations after other nations criticized Japanese policy.

This article deals with Japanese wildlife law in the specific case of marine turtle management. All species of marine turtles are endangered or threatened. The signatory countries of CITES have evidenced concern about marine turtle conservation by listing all species as endangered, but in Japan, as in many of those countries, wildlife management is based on the view that wildlife first and foremost is a consumable resource, which should be preserved, if at all, for that purpose. Customary cultural uses of

Division supports monitoring surveys such as the satellite tracking of migrating birds. The Environment Agency, Japan, *Wildlife Conservation in Japan* (1992).

5. Asako Murakami, *Ministerial Infighting Stalls Recycling Bill: Measure May Not Reach Diet*, JAPAN TIMES, Apr. 15, 1995; JULIAN GRESSER ET AL., *supra* note 1, at 370-71 (arguing that in matters of marine pollution control, warring ministries are each concerned with a different objective—the Ministry of Agriculture, Forestry, and Fisheries is concerned with foreign pollution on distant fishing operations, the Ministry of Transportation is concerned with obstruction of merchant trade, and the Foreign Ministry is concerned with irritants to international relations).

wildlife, no matter how obscure or practiced, are used as justification by the Japanese government not to enforce strict protective measures unless prompted to do so by external pressures.⁶ Furthermore, even when the government is pressured to adjust policies, bureaucratic mechanisms impede the creation of sound policies based on scientific ideas about conservation. Instead, the policies are determined by the very interests which would lose out if strict regulation were to be instituted. A drive to gain international recognition as an environment-friendly nation, however, is requiring modification of old policies regulating wildlife. The added challenge of operating from a new viewpoint as well as attempting to guide new laws and modifications through the bureaucratic maze is proving very difficult for the Environment Agency. Accordingly, there is no comprehensive conservation-oriented wildlife policy, leaving domestic endangered species largely unprotected, as well as failing to stem the importation of non-native endangered species to Japan.

II. SUMMARY

The recurring administrative battles over marine turtle policy within Japan is a representative example of the ongoing conflict between the Environment Agency and the stronger ministries. Despite international pressure to modify Japan's policy, change in this area is most difficult. Resistance to change can be found within the Ministry of Agriculture, Forestry and Fisheries as well as the local governments because they are occupied with the regulation of harvesting resources for human consumption. There have been some local government attempts to conserve the marine turtles, but wholehearted dedication to a collective local effort of conservation is rare. Scientific studies have shown that because marine turtles are a migratory species, successful conservation of the remaining eight species depends upon regional and international cooperation.⁷ For the reasons discussed below, Japan has been quite slow to act in creating a comprehensive scientifically-based policy aimed at conserving the marine turtles found both in its waters and from countries that routinely export turtles and tortoiseshell to supply Japan.

6. 137 CONG. REC. S 6143 (1991).

7. B. W. Bowen et al., *Trans-Pacific Migrations of the Loggerhead Turtle (*Caretta caretta*) Demonstrated with Mitochondrial DNA Markers*, 92 PROC. NAT'L ACAD. SCI. USA 3731, 3733 (1995); IUCN/SSC MARINE TURTLE SPECIALIST GROUP, A GLOBAL STRATEGY FOR THE CONSERVATION OF MARINE TURTLES 16-17 (1995).

III. BRIEF INTRODUCTION TO MARINE TURTLES

There are seven clearly recognized species of marine turtles. They are the Hawksbill (*Eretmochelys imbricata*), Loggerhead (*Caretta caretta*), Green (*Chelonia mydas*), Olive Ridley (*Lepidochelys olivacea*), Kemp's Ridley (*Lepidochelys kempi*), Leatherback (*Dermochelys coraicea*) and Australian Flatblack (*Natator Depressus*).⁸ Scientists are still striving to develop an optimum taxonomy of marine turtle species and subspecies through biochemical and morphological analysis.⁹ Two species, the Green Turtle (*aoumigame*) and the Loggerhead (*akaumigame*) regularly gather off the shores of Japanese beaches to nest. The Hawksbill (*taimai*) species is found off the southern main islands with nesting restricted to the most southern islands of Nansei Shoto (Okinawa Prefecture).¹⁰ Other species, such as the Olive Ridley and the Leatherback have been spotted on rare occasions in Japanese waters. All species are considered endangered or threatened in countries bordering on their range.¹¹ The United States, with whom Japan "shares" migratory turtles, lists all species that migrate through U.S. waters as endangered or threatened under its Endangered Species Act.

Scientists believe that marine turtles are natal homers, although the mechanics of navigation are yet unknown. This means that after maturation from hatchling to adult they return to the coastal area off the same beaches from which they hatched. There, they mate, and the females go ashore to lay their eggs. Scientists generally believe that marine turtles show strong site fidelity toward their own natal beach.¹² Some species, however, show some limited flexibility in nesting location selection which allows them to nest at a nearby beach if the primary location is unattainable.¹³ Male turtles do not normally come ashore. After about one and one-half months, the hatchlings begin their efforts to chip through their shells, a process which takes about

8. IUCN/SSC MARINE TURTLE SPECIALIST GROUP, *supra* note 7, at 1.

9. B. GROOMBRIDGE AND R. LUXMOORE, THE GREEN TURTLE AND HAWKSBILL (REPTILIA: CHELONIIDAE): WORLD STATUS, EXPLOITATION AND TRADE 9 (1989); Personal Communication with Dr. George Balazs, Deputy Chairman, IUCN Marine Turtle Specialist Group, National Marine Fisheries Service, in Honolulu, Hawaii (Sept. 9, 1995). For example, it was once believed that the Pacific Black Turtle was an eighth specie but recent DNA analysis reveals that the Pacific Black Turtle is not discrete from the Green Turtle.

10. B. GROOMBRIDGE, *supra* note 9, at 276-77.

11. 137 CONG. REC. S 6143 (1991).

12. Anne B. Meylan, Brian W. Bowen, and John C. Avise, *A Genetic Test of the Natal Homing Versus Social Facilitation Models for Green Turtle Migration*, SCIENCE, May 11, 1990, at 724.

13. Interview with Kazuo Horikoshi, Ph.D., research staff, Marine Environmental Ass'n of Tokyo, in ChiChiJima, Japan (Sept. 22, 1994).

four or five days. After all the hatchlings have broken through, they dig through the sand and wait just below its surface. Then something unidentified as yet by scientists, triggers the emergence of the hatchlings. They break through in a burst of energy called an "infantile frenzy."¹⁴ The hatchlings then run for the water and, if they are lucky enough to not fall prey to the many predators waiting for a tasty meal, disappear into the sea. For the first forty or so hours scientists believe the hatchlings swim with determination until they are out to sea.¹⁵ It is speculated that some species float amongst the sargassum weed community until they reach a particular unknown age before joining migrations to juvenile and adult feeding grounds.¹⁶ It is generally assumed that adult turtles are non-pelagic, migrating between offshore feeding grounds and returning at intervals to their natal sites to breed and nest.¹⁷

Marine turtles nest in many parts of Japan, with the most abundant nesting activity occurring in the special jurisdiction of Tokyo City in the Izu Shoto and the Ogasawara Retto. Three species of marine turtles nest in Japan: the Green, the Loggerhead, and the Hawksbill. There are several juvenile and adult feeding grounds in the vicinity of Japan, although the exact charting of the grounds has been difficult. One suspected feeding ground is in the international waters off the East China Sea between Okinawa Prefecture and China.¹⁸ Recent mitochondrial DNA analysis has revealed that the Ogasawara-Chiba Green turtles are part of the same group of turtles that migrate to the coastal areas off Southern California in the United States.¹⁹ On one occasion, a juvenile Loggerhead that was head-started in Okinawa, Japan was caught 75 km west of San Diego 2.3 years after its initial release.²⁰ Population demography, however, has not been comprehensively charted.

14. ARCHIE CARR, *THE SEA TURTLE: SO EXCELLENT A FISHE 77-79* (1984).

15. COMMITTEE ON SEA TURTLE CONSERVATION ET AL., *DECLINE OF THE SEA TURTLES: CAUSES AND PREVENTION 31* (1990) [hereinafter *DECLINE OF THE SEA TURTLES*].

16. *Id.*

17. B. GROOMBRIDGE, *supra* note 9, at 276 (discussing migration patterns of the *Chelonia mydas*); Bowen, *supra* note 6, at 3731-33; CARR, *supra* note 14, at 37; *DECLINE OF THE SEA TURTLES*, *supra* note 15, at 33, "It has been generally accepted, but not proved, that green turtles return to nest on their natal beach. Green turtles do exhibit strong site fidelity in successive nesting seasons."

18. Interview with Kazuo Horikoshi, *supra* note 13; *Incidental Capture of Sea Turtles by Japanese Research and Training Vessels: Results of a Questionnaire*, MARINE TURTLE NEWSLETTER, No. 51, Oct. 1990, at 1-4.

19. Interview with Kazuo Horikoshi, *supra* note 13.

20. This fact has jurisdictional ramifications for the implementation of the U.S. Endangered Species Act over migratory animals.

IV. HISTORY OF THE USE OF MARINE TURTLES IN JAPAN

A. THE TORTOISESHELL INDUSTRY

The Portuguese introduced the Japanese to the craft of fashioning tortoiseshell or *bekko* into ornaments such as ceremonial bridal combs.²¹ As of 1989, there were 60 *bekko* factories employing an average of 16.5 people each. The main items of production today are tie clips, eyeglass frames, and bowls.²² Most factories are family run businesses, in which roughly one-half of the workers are non-family members. Nagasaki consumes the most *bekko* products at a rate of 60%, Tokyo and Osaka at 10% each, with other areas of Japan at 20%.²³ The tortoiseshell for this craft industry is harvested from the Hawksbill (*taimai*), a species which is not found in abundance in Japanese waters. Thus, prior to 1991, most of the shell supplying the *bekko* industry was imported illegally from sources with CITES signatory nations, or legally from a rerouting of shipments through non-CITES nations. It was estimated that the annual imports of Hawksbill shell was about equal to the annual number of nesting Hawksbill female turtles in its range throughout the world.²⁴ The large amounts of imports were considered serious enough to make Japan the target of criticism by the international community for a failure to curb its tortoiseshell appetite.²⁵ If Japan did not end its imports, scientists predicted the extinction of the species.²⁶

Japan finally regulated trade in Hawksbills under the pressure of impending official censure through the U.S. Pelly Amendment in 1991.²⁷ With trade in other fishery products imperiled by the continued import of tortoiseshell, the Japanese

21. NOAA Technical Memorandum NMFS (Sept. 1993) [hereinafter NOAA Technical Memoranda], at 10.

22. *International Trade Aspects of the Japanese Hawksbill Shell ('Bekko') Industry*, MARINE TURTLE NEWSLETTER, No. 54, Jul. 1991, at 17. Today, most *bekko* is fashioned into nontraditional items. The methods of manufacture, however, remain traditional. These methods have been passed through the generations and vary although the basic manufacture process consists of joining carapace and plastron scutes by a warming and pressure clamping process after designs have been engraved upon the shell; NOAA Technical Memoranda, *supra* note 21, at 10.

23. NOAA Technical Memoranda, *supra* note 21, at 10-11.

24. *Id.* at 11. The total number of female hawksbills estimated to nest each year is 15,000 to 25,000; *Japan Bans Import of Hawksbill Shell Effective December 1992*, MARINE TURTLE NEWSLETTER, No. 54, Jul. 1991, at 2.

25. NOAA Technical Memoranda, *supra* note 21, at 11. "[T]he result has been extensive negative publicity toward Japan for not curtailing its time-honored tradition."

26. *Id.* The number of turtles consumed by the Japanese amounted to an "unsustainable scenario" for survival of the species.

27. *Id.* at 12; see *Japan Bans Import of Hawksbill Shell Effective December 1992*, *supra* note 24 for a summary of trade negotiations; *Japan Announces Limit on Im-*

government chose to protect the threatened fishermen over the *bekko* industry.²⁸ Japan announced that it would end its CITES reservation on the Hawksbill and limit trade in Hawksbill products on July 1, 1994 to imports from those nations which could prove that the tortoiseshell originated in a country that had a marine turtle conservation program in place.²⁹ Under these terms, the Japanese government would be able to import the tortoiseshell only from Cuba.³⁰ During the interim period, the government allowed continued imports at negotiated levels, with little regard to the biological situation of the species.³¹

Despite official protection, tortoiseshell imports continue to be smuggled into Japan,³² with the *bekko* industry maintaining that it uses only reserves gathered before the official ban took effect. One smuggler, however, admitted that the new restrictions were making it impossible for him to manage his *bekko* factory, thus making it necessary for him to attempt to smuggle 590 kilograms worth, 80,000,000 Japanese yen (roughly \$800,000 U.S.), of shell from the Dominican Republic.³³ One kilo of shell varies in value from 30,000 yen to 300,000 yen.³⁴ Since the recorded amount of imported shell from the Dominican Republic in the year preceding its CITES membership was 569 kilograms, the amount this one smuggler attempted to import is significant.³⁵

B. LEATHER GOODS

The Green and Olive Ridley species were used in the tanning industry by the Burakumin, a minority group in Japan tradi-

ports of Endangered Sea Turtles, DAILY REPORT FOR EXECUTIVES, June 20, 1991, at A-6.

28. Interview with Yoshio Kaneko, Ph.D., Director, Global Guardian Trust, in Tokyo, Japan (Nov. 24, 1994). "Some believe that the *bekko* industry was sacrificed as one of many trade concessions in order to protect the Japanese computer industry. Some view it as a sell-out of the *bekko* industry, which employs many handicapped people who have difficulty finding employment elsewhere once the stock pile of tortoiseshell reserves are depleted."

29. *Japan Bans Import of Hawksbill Shell Effective December 1992*, MARINE TURTLE NEWSLETTER, No. 54, July 1991, at 1.

30. Anne and Jack Rudloe, *Sea Turtles in a Race For Survival*, NAT'L GEOGRAPHIC, Feb. 1994, at 118. Cuba maintains that hawksbills do not migrate and can be managed as a fishery. Before the import ban, Cuba exported about 3,500 shells per year to Japan.

31. *Japan Bans Import of Hawksbill Shell Effective December 1992*, MARINE TURTLE NEWSLETTER, No. 54, July 1991, at 2.

32. Asahi Shimbun Osakahan, June 22, 1994, at 27. [The shells of 500 Hawksbill turtles smuggled in from Central America].

33. *Id.*

34. *Id.*

35. B. GROOMBRIDGE & R. LUXMOORE, *supra* note 9, at 168, tbl. 55.

tionally employed in the leather manufacturing industry.³⁶ The industry was more reliant on species other than marine turtles because raw materials from marine turtles were not in general abundance. Even so, the government sought the permission and cooperation of the industry to end the processing of marine turtles through a campaign of education.³⁷ To give up the marine turtle, the government reasoned, would not affect the general availability of other reptile skins for processing.³⁸ Thus, the industry would not be shut down, merely modified.³⁹ The government proceeded slowly in dealing with this industry, perhaps wary of perpetuating the discrimination traditionally practiced against the Burakumin. After protracted meetings between the government and tanner representatives, the latter agreed to forego using marine turtle skins.⁴⁰

C. CONSUMPTION AS FOOD OR MEDICINE

Other species of marine turtles found in Japan's territorial waters were not traditionally fished for commercial purposes. However, after World War II, some people harvested the Green turtle for its meat and eggs for food.⁴¹ In the Ogasawara Islands, the original inhabitants who migrated from the South Pacific islands carried over a tradition of eating the Green turtle on special occasions. Lately, however, the threat to the Green turtle comes from a novelty fascination trend which, about eight years ago, fueled the sale of eggs collected from Southern beaches in Tokyo's Tsukiji Market.⁴² More recently, the fascination sparked cooperation between a local fisheries union and a local store to can the meat and market it as a tourist souvenir.⁴³ The can label is complete with cooking instructions which inform the purchaser that the Green turtle is a delicacy in Europe.

36. Burakumin status is not the result of any particular occupation. Rather, it is because of Burakumin status that only certain occupations are accessible. For more information about the origins and consequences of this status in Japanese society, see M. HANE, *PEASANTS, REBELS, AND OUTCASTES: THE UNDERSIDE OF JAPAN* (1982).

37. Interview with Yoshio Kaneko, *supra* note 28.

38. *Id.*

39. *Id.*

40. *Id.*

41. NOAA Technical Memoranda, *supra* note 21, at 12.

42. In 1992, the cost of one sea turtle egg was about ¥1,500, roughly equivalent to US\$15. Naoko Kakuta, *Sea Turtles to be Protected by Fisheries Agency, JAPAN ENV'T MONITOR*, Feb. 28, 1992.

43. Interview with Kazuo Horikoshi, *supra* note 13. Koiwa market in Omura, Chichijima markets the canned turtle meat as a tourist souvenir. The can label is complete with cooking instructions which inform the purchaser that green turtle meat is a delicacy in Europe.

D. LACQUERED SPECIMENS

A popular novelty item is a stuffed whole specimen or *hakusei* prepared for hanging on a wall. Usually, it is juvenile Green and Hawksbill turtles that are lacquered after their shell has been sanded and polished. Tourists buy these stuffed specimens, but these decorative items also adorn the window displays of gift shops and restaurants. Pharmacies display the lacquered specimens in window dressings advertising Chinese medicines or *kampoyaku*. The true ingredients of the *kampoyaku* are fresh water turtles, not marine, thus making these displays a false but blatant advertisement promoting the consumption of an endangered species.⁴⁴

E. CEREMONY

A ceremony still practiced today is the tradition of releasing a turtle on a special occasion. For example, the Ogasawara city office buys up to 10 turtles from fishermen each year and holds them in pens until a ceremonial event takes place. On the festive day, the turtle is released and swims away to freedom. One such event is the commemoration of the annual senior high school students' trip to the Japanese mainland. The tradition came to the city with the early South Pacific Island settlers, and is practiced in Ogasawara only. During their months in captivity, the turtles lose weight because there is no suitable food source in the area; they were stopped in the midst of their migration and are thus unable to return to their feeding grounds.

F. SUMMARY

There are many current uses for marine turtles in Japan, with the largest demand for shell by the *bekko* industry. In addition, marine turtles are still used for food, decoration, and ceremonies. Determining to what degree these acts are based on tradition is difficult—however, it is probably safe to say that in only a few instances does the consumption of marine turtles as a food source constitute a cultural tradition. Diffusion of local cultural traditions throughout modern Japan seems a weak foundation upon which to base an argument for increased consumption of marine turtles. For example, the fact that eggs deposited in Yakushima, an island off the southern tip of Kagoshima, *can* be transported to a Tokyo market does not mean that there is a pre-

44. The display of endangered species for commercial purposes is illegal under the Regulation of the Transfer of Endangered Species of Wild Fauna and Flora, Law No. 32 (1987).

existing culture-based argument for making those eggs available to would-be patrons in Tokyo.

Despite the relatively low demand for consumption of marine turtles, the government has found it difficult to enact a comprehensive conservation scheme. While there are potential benefits to be gained in terms of the recognition Japan would gain from the international community, it has yet to make a serious and comprehensive step forward in the area of domestic marine turtle conservation.

V. LAWS CONCERNING MARINE TURTLES: INTERNATIONAL TREATY OBLIGATIONS, NATIONAL LAWS, FISHERY ADJUSTMENT COMMISSION REGULATIONS, & LOCAL ORDINANCES

The legal regulation of marine turtles in Japan can be divided into four categories. The first category is comprised of the international obligations Japan entered into under international treaties. This includes the Convention on International Trade in Endangered Species ("CITES"), the International Convention for the Prevention of Pollution of the Sea by Oil (1954) (21 November 1967), Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (1972) (14 November 1980), Protocol of 1978 Relating to the International Convention for the Prevention of Pollution From Ships, a.k.a. The London Convention or MARPOL (1978) (2 October 1983). All of these international agreements have potential to promote species conservation. However, since CITES is the only convention that directly relates to the position of the government on marine turtle conservation, it is the only convention I will discuss. The second category includes national laws which concern marine turtles and laws which may protect marine turtles if ministerial policy shifts to give the Environment Agency control over conservation of the species. The third category is a hybrid of the national regulatory scheme and prefecture scheme as drafted by the national and local fishery adjustment commissions. Finally, there are prefecture laws and local ordinances designed to regulate the fishing of marine turtles. Domestic regulation can be characterized overall as consistent in not affording much protection to marine turtles. The following description of legal regulation includes reasons for the continued lack of commitment to conservation of marine turtles.

A. INTERNATIONAL TREATY OBLIGATION: THE CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES

Japan became a signatory to the Washington Convention CITES on April 30, 1973, but the Japanese Diet did not ratify the treaty until April 25, 1980. Even after ratification, the government waited until certain industries that would be affected by the treaty had stockpiled raw materials and started future plans without access to more raw materials before it brought the treaty into effect in November, 1980. After the treaty came into effect the Japanese held reservations on several listed species, including three marine turtle species - the Olive Ridley, Hawksbill, and Green turtle. As a result, the international community has criticized the lack of dedication on the part of Japan in implementing and enforcing CITES.⁴⁵

According to CITES Article II, Appendix I includes "all species threatened with extinction which are or may be affected by trade." Trade in these species "must be subject to particularly strict regulation in order not to further endanger their survival and must only be authorized in exceptional circumstances."⁴⁶ Roughly five percent of all species listed are Appendix I species.⁴⁷ Appendix II includes those species which, "although not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilization incompatible with their survival." Appendix II also includes what has come to be known as "look alike species," which must be regulated in order to make enforcement duties possible.⁴⁸ Appendix II species account for most of all CITES listed species.⁴⁹ Appendix III includes species listed at the request of the country where that species is situated. Despite the official listing of a species on any one of the appendices, a country can avoid the treaty obligations by "holding a reservation" on that species.⁵⁰ If a signatory nation chooses to reserve its option to trade in a listed species, it is treated as a non-signatory nation as to the reserved species. Thus, a country maintain-

45. *Japan Rapped for Lax Controls on Rare Species*, JAPAN TIMES, Nov. 4, 1994, at 3.

46. Convention on Int'l Trade in Endangered Species of Wild Fauna and Flora, Mar. 3, 1973, 27 U.S.T. 1090, T.I.A.S. No. 8249, 993 U.N.T.S. 243; Wijnstekers, Willem, *The Evolution of CITES*, at 312.

47. *Traffic in Endangered Species: Is MITI Doing Its Job?*, JAPAN ENV'T MONITOR, July-Aug. 1992, at 24.

48. Convention on Int'l Trade in Endangered Species of Wild Fauna and Flora, *supra* note 46.

49. *Traffic in Endangered Species: Is MITI Doing Its Job?*, *supra* note 47.

50. Wijnstekers, *supra* note 46, at 325. Cites Article XVI, Appendix II, and Amendments thereto.

ing reservations on a species can conduct legal trade in that species even though the species is recognized by other signatory countries as threatened with immediate extinction.⁵¹

Japan exercised its option to trade in endangered marine turtles by taking reservations on the Green and Olive Ridley species until 1987 and 1992 respectively.⁵² Japan's reservation on the Hawksbill was withdrawn as of July 1994.

Although Japan eventually withdrew its reservations on marine turtles, it did not commit itself to restricting international trade in the species. Indeed, Japan continued to trade heavily in the Hawksbill until withdrawal of its Hawksbill reservation on July 1994, even after banning all Hawksbill imports as of December 31, 1992.⁵³ Most agree that the U.S. government censure under the Pelly Amendment⁵⁴ in March 1991, and not support of conservation goals, made the Japanese government choose to protect the export market of domestic fisheries products over the small but traditional *bekko* industry responsible for continued Hawksbill imports.⁵⁵ The Pelly Amendment to the Fishermen's Protective Act of 1967 authorizes the President to ban imports of any fisheries products from any country impeding the effectiveness of international fisheries programs by conducting its fisheries operations in an improper manner.⁵⁶

Since regulating endangered species in the international arena is linked directly to international trade, the Japanese government has assigned MITI the task of implementing CITES. MITI oversees all permit processing concerning the transfer of marine turtles for scientific research purposes, which is allowed under CITES, and is charged with the duty of inspecting imports to ensure that restrictions on Hawksbill shell are enforced.⁵⁷ In general, however, customs inspections are difficult because the officers are not trained to identify the wildlife products and have for guidance only a catalogue of black and white pictures of the endangered species.⁵⁸

51. Wijnstekers, *supra* note 46 at 191, 235. Under Article XXIII of the Convention, a party to the Convention may enter reservations on species listed on any one or all of the Appendices. NOAA Technical Memoranda, *supra* note 21, at 31.

52. *Id.*

53. *Id.*

54. *Fact Sheet on U.S. Certification of Japanese Sea Turtle Trade for Violation of Pelly Amendment*, JAPAN ENVIRONMENT MONITOR, Apr. 30, 1991, at 3.

55. *Tortoishell Trade: End of an Era?*, MARINE TURTLE NEWSLETTER, No. 66, July 1994, at 16-17.

56. NOAA Technical Memoranda, *supra* note 21, at 31.

57. *Id.*

58. Koichiro Fujikura, (Jan. 31, 1994) (unpublished, untitled manuscript, on file with the author).

Additionally, the export of samples and marine turtle specimens is controlled by MITI export permit procedures. Since the Fisheries Agency has a hand in dealing with the scientific aspects of international studies, a scientific oversight committee has been formed to oversee the export of scientific samples. The committee, however, is headed by one scientist who can hold up the export permit process where research might yield results potentially troubling to the Fisheries Agency. As will be explained below, research that confirms the endangered status of marine turtles could result in the Fisheries Agency's loss of jurisdiction over marine turtles in Japan.

B. NATIONAL REGULATION: THE TRADE-OFF BETWEEN
MAINTAINING THE POWER TO REGULATE AND
IMPLEMENTING A COMPREHENSIVE
CONSERVATION POLICY

Jurisdiction over marine turtles is fragmented and is a prime example of what the Japanese term "*kangen arasowe*," meaning to fight for jurisdiction.⁵⁹ The primary power to oversee the national policy on marine turtles is maintained by the Ministry of Agriculture, Forestry, and Fisheries. Within the Ministry, the Fisheries Agency has jurisdiction over all marine animals, viewing them all as fisheries consumable resources, whether or not they are endangered species.⁶⁰ The Fisheries Agency claims jurisdiction over marine turtles from the ocean up to the shoreline, and regulates marine turtle catch quotas under its Fisheries laws.⁶¹ According to the Fisheries Agency, the Environment Agency has jurisdiction over the marine turtles from the shoreline landward.⁶² This arrangement is similar to the way in which the Secretary of Commerce and Interior share jurisdictional authority over marine turtles in the U.S.⁶³ However, in contrast to the situation in the U.S., there is minimal cooperation between the Fisheries Agency and the Environment Agency over the matter of marine turtles. The Environment Agency is in the awkward position of having jurisdiction of marine turtles, if at all, only from the shoreline landward. Because the turtles are primarily marine animals who come ashore only occasionally, they may as well be under the exclusive jurisdiction of the Fisheries Agency.

59. Interview with Yoshio Kaneko, *supra* note 28.

60. Interview with Morio Kaneko, Office of Ecosystem Conservation, Fisheries Agency, in Tokyo, Japan (Sept. 26, 1994).

61. Generally, the taking of all marine resources is regulated under the Fisheries Law and the Fisheries Resource Protection Law. *Gyogyō Hō*, [The Fisheries Law], Law No. 267, Dec. 15, 1949 (as amended Law No. 81, Dec. 19, 1989).

62. Interview with Morio Kaneko, *supra* note 60.

63. CARR, *supra* note 14.

The advantage that even partial jurisdiction may give the Environment Agency is that it might enable the Environment Agency to declare marine turtles endangered within Japan, a designation which could bring to bear all protections available for endangered species.⁶⁴

1. *The Environment Agency and the Jurisdiction Battle to Regulate Marine Turtles*

The jurisdictional turf battle resulted in the Environment Agency having no direct power to control the taking of marine turtles, although it retains some influence over habitat development in certain cases.⁶⁵ If, however, the Environment Agency had been successful in its bid to gain complete control over the marine turtles, the species would have enjoyed some protection under The Law for the Regulation of the Transfer of Endangered Species of Wild Fauna and Flora. This law prohibits the sale or transfer of living or whole stuffed specimens of species designated as rare within Japan. Parts and derivatives of animals listed as rare were allowed to be legally traded until a July 1994 amendment went into effect in 1995.

The designation of a species as rare is based upon the conclusion of Environment Agency sponsored studies which state that a species is rare and should be listed in the Red Data Book of Japan. In its attempt to bring marine turtles under its jurisdiction, the Environment Agency included marine turtles in the first Red Data Book of Japan published in 1990.⁶⁶ The Red Data Book of Japan names two species of marine turtles, *Chelonia Mydas* (Green) and *Eretmochelys imbricata* (Hawksbill), as rare species. The Red Data Book is a regulation wish list which, in principle, covers CITES Appendix I species within the country unless exempted by the Director General of the Environment Agency.⁶⁷ Article 4, clause 5 of the Law for the Regulation of the Transfer of Endangered Species of Wild Fauna and Flora⁶⁸ covers species listed in CITES Appendix I in bilateral treaties as "international endangered species". However, international endangered species are not protected under the law unless they are also designated as (1) a "national endangered species" (endangered species whose geographic distribution is known in Japan, and migratory species); (2) a "specific national endangered spe-

64. Interview with Tatsuo Ihara, Environment Agency, in Tokyo, Japan (Sept. 1, 1994).

65. *Id.*

66. Environment Agency, RED DATA BOOK OF JAPAN 1 (Mar. 1992), at 146.

67. *Id.*

68. Law for the Regulation of the Transfer of Endangered Species of Wild Fauna and Flora, Law No. 32 (1987).

cies" (species whose population is in danger of extinction, even though a domesticated or cultivated population is widely spread on a commercial basis); or (3) a "temporarily designated endangered species" (new species found that was thought to be extinct). Since all of the designations are made by the Environment Agency, which does not have control over or monitoring ability with respect to marine turtle activity while in the ocean, the marine turtles have been left off all official conservation lists in Japan. Also, marine turtles are excluded from all Environment Agency coordinated monitoring surveys of threatened species for animals and plants listed as endangered or vulnerable in the 1990 Red Data Book.

2. *The Fisheries Agency: Failure to Recognize Endangered Species*

The Fisheries Agency sees its job as one of allocating resources. Since marine turtles are marine resources, not yet officially recognized as endangered, the taking of marine turtles is subject to fisheries laws. There are two basic laws that regulate fisheries in Japan, The Fisheries Law (*Gyogyoho*) and the Fisheries Resource Protection Law (*Suisanshigenhogoho*). In addition to coordinating fisheries operations through laws, the Fisheries Agency, like most agencies in Japan, relies heavily on administrative guidance (*gyoseishido*) to direct policy at all levels of government. Local fisheries associations, however, routinely influence the content of the Fisheries Agency's administrative guidance of the Marine Areas and prefectures.⁶⁹

The basic law covering fisheries in Japan is The Fisheries Law, which does not mention marine turtles. This is the basic law that sets forth fishing rights and provides the structure for committees' administering the fisheries adjustments on a yearly basis. Each prefecture bases its prefectural fisheries regulations upon The Fisheries Law and The Fisheries Resource Protection Law, discussed below. An example regulation is *Todofuken Gyogyochoseikisokurei*⁷⁰, which lists species while leaving blank spaces for fishing seasons, tonnage quotas, size limits, and the like. Marine turtles are also not included in this regulation.

The Fisheries Resource Protection Act requires the Minister of Agriculture, Forestry and Fisheries to consider the conservation of marine resources, but does not define the term "conserva-

69. Telephone Interview with Kevin Short, Ph.D., in Tokyo, Japan (Jan. 28, 1995).

70. The Fisheries Law, ch. 65, art. 1, Oct. 13, 1957; The Fisheries Resource Protection Law, ch. 4, art. 1, Dec. 17, 1951 (as amended Law No. 313).

tion".⁷¹ A recent amendment to the Fisheries Resources Protection Law prohibits the capture of the Leatherback and the Olive Ridley species.⁷² Since these species are very rarely sighted in Japanese waters and do not nest in Japan, the prohibition has no real effect except, perhaps, in raising awareness of the need to protect marine turtles in general. Even this new prohibition has exemptions. The Olive Ridley, its eggs, and Leatherbacks can be taken for research and other purposes if permitted by the Ministry of Agriculture, Forestry and Fisheries.⁷³ The law does provide punishment of up to two years in jail or a fine of up to ¥500,000, or both⁷⁴ and also extends liability to legal persons who hire others to catch turtles. However, the law in fact does not accomplish a great deal because of lack of enforcement.⁷⁵

Officials at the Fisheries Agency are very quick to point to the Fisheries Resource Protection Law amendment as a "major" accomplishment in the area of conservation.⁷⁶ However, officials at the Fisheries Agency Office of Ecosystem Management readily admitted that the new chapter to the Fisheries Resource Protection Law means very little in the terms of conserving or protecting marine turtles.⁷⁷ Perhaps the amendment signals a shift in the Agency's policy, from official denial of endangerment when used as a "resource," to the recognition of the marine species as one which cannot be consumed even under the guise of sustainable use.

Indeed, the Ministry of Agriculture, Forestry and Fisheries has recently acted in ways which could be interpreted as a policy shift towards marine turtles. In light of continuing international criticism, the Fisheries Agency may be attempting to deal with the idea of endangered status and how such an idea might affect fishing resource management policies. If the Fisheries Agency fails to modify its current view that all species in the sea are consumable resources, the Environment Agency may acquire jurisdiction over those marine species that are clearly determined as endangered.

The Office of Ecosystem Management was established in April 1993 for the purpose of fisheries promotion and resource management coordination.⁷⁸ The Office's tasks include the "har-

71. The Fisheries Resource Protection Act, Reg. No. 15, April 1, 1993.

72. *Id.*

73. *Id.*

74. *Id.*

75. *Id.*

76. Interview with Morio Kaneko, Office of Ecosystem Conservation, Fisheries Agency, in ChiChiJima, Japan (Nov. 22, 1994).

77. *Id.*

78. *Id.*

monization" of marine turtle policies with the mounting scientific evidence that the species is, in fact, endangered. One of its projects is to collect data for the first Fisheries Agency Red Data Book. Rough drafts of the Fisheries Agency Red Data Book list all marine turtles in one of five precarious states of endangered status. There are six categories of population status according to the Fisheries Agency: (1) Normal (*futsu*), which labels a population in which natural population dynamics are observed even though it may appear to be decreasing; (2) Decreasing (*gen-shōkeikōshu*), which labels a population in which there is a clearly observable trend of decrease during a long term; (3) Clearly Decreasing (*genshōoshu*), which labels a clearly decreasing population with any population recovery made difficult due to natural habitat degradation or over fishing; (4) Very Few (*kishōoshu*), which labels populations few in numbers due to habitat change or other types of pressures on the population; (5) Seriously Endangered (*kikyōushu*), which labels a population rapidly approaching danger of extinction; and (6) Endangered (*zetsumetsu kigushu*), which labels populations in immediate danger of extinction.⁷⁹ According to this system, Loggerheads are "decreasing", Hawksbills and Greens are "very few," and Olive Ridleys and Leatherbacks are "endangered". As this Fisheries Agency Red Data Book will not be completed for a number of years, there will only be incremental "adjustments" to the capture quotas on the species regularly found in Japan during this time.

Some scientists claim that if the decision to adjust quotas downward was accurately based on scientific calculations that the two species are endangered, threatened, or vulnerable, only a complete prohibition would suffice. The scientists believe the incremental changes were meant to ease negotiations with the fisheries cooperatives wishing to preserve their fishing rights rather than to zealously promote conservation efforts.⁸⁰ Considering the influence of the fisheries associations, this conclusion is plausible.

Another project of the Office of Ecosystem Management within the Fisheries Agency is a five year study on population demography of marine turtles. Beginning in 1994, the Fisheries Agency is sponsoring satellite tracking experiments aimed at charting the migratory routes of turtles.⁸¹ The plan calls for affixing to one hundred turtles radio transmitters costing about

79. Nihon No Kishōna Yaseisusei Seibutsu ni Kansuru Kisoshiryō [Document Concerning Endangered Species in Japan], (Suisanchō) [Fisheries Agency] (Mar. 1994).

80. Interview with Morio Kaneko, *supra* note 60.

81. *Id.*

¥500,000 each. In addition, the cost of tracking each turtle via transmission signals received by the French Argos satellite is about ¥3,000 per day.⁸²

The degree of commitment to the project by the Fisheries Agency is, however, debatable. Certainly the Fisheries Agency has not made a concerted effort to acquire the most effective transmitters. According to some scientists, the Japanese-made transmitters are too expensive and inefficient. Since marine turtles average anywhere from about forty minutes to one hour twenty minutes between surfacing for air, and the transmitters are not fitted with a "salt water switch" which turns the transmitter off when it is submerged to allow battery conservation, the transmitter will last only about six months.⁸³ Of course, six months is too short of an interval in which to learn about the annual migratory routes of these animals.⁸⁴ American devices can also collect a variety of data including those useful for depth mapping. Depth mapping data may be useful in determining how to avoid accidentally catching marine turtles during fishing operations. Additionally, the American-made devices are much smaller than the Japanese devices, thereby reducing the chance that the turtle will get caught in "cast off" fishing nets. It also reduces the general drag of the water over the shell which may affect the turtles' ability to migrate long distances in a normal manner.

The difficulty in purchasing American-made salt water switch transmitters arises from regulations of the Ministry of Telecommunications, which insist on every device being registered with its own frequency and the manufacturing plans being submitted to the government.⁸⁵ American companies refuse to submit the manufacturing plans, with the result that the Japanese experiment will yield little useful data despite great monetary expense and scientific effort.⁸⁶ Although conservation scientists have approached the Fisheries Agency about applying pressure in order to be able to change the device, the process has been tentative because the first year's budget has already been used on the inferior devices.⁸⁷

82. Interview with Hiroyuki Sukanuma, Sub Director, Marine Environmental Ass'n of Tokyo, in ChiChiJima, Japan (Sept. 28, 1994).

83. *Id.*

84. Interview with Hiroyuki Sukanuma, Sub Director, Marine Environmental Ass'n of Tokyo, in ChiChiJima, Japan (Sept. 19, 1994).

85. *Id.*

86. *Id.*

87. *Id.*

Also, the Fisheries Agency has refused to release data collected regarding sightings or bycatch⁸⁸ of marine turtles in nearby international waters frequented by fishing vessels. Scientists believe that an area in the East China Sea serves as a juvenile feeding ground for one or two species.⁸⁹ Taiwan, Korea, and Japan operate fishing boats in the area on a regular basis. The Fisheries Agency sent observers out with the fishing fleets to investigate bycatch problems but will not comment on the problem except to acknowledge that it may exist.⁹⁰

The Fisheries Agency has a disincentive to participate in research which could reveal the endangered status of the marine turtles. Such research would result in a shift of jurisdiction to the Environment Agency. Therefore, although the Fisheries Agency is engaged in activities such as drafting a Red Data Book, satellite tracking experiments, and bycatch monitoring, it is still unclear how sincere the Fisheries Agency is in pursuing information which would most likely reveal how fisheries policies are not in line with conservation.

3. *Administrative Guidance*

Administrative guidance (*gyoseishido*) is used to determine the catch quota and the methods allowed for taking marine turtles each season.⁹¹ Although administrative guidance is not legally enforceable, the administrative agencies use it quite often both in implementing laws and granting exceptions to laws.⁹² In the case of marine turtle management, the Fisheries Agency regularly employs administrative guidance to regulate the number of turtles that can be caught by local fishermen. The method of determining the "quota" is dependent largely upon the estimated catch of the fishermen for the coming year based upon the catch of the preceding year.⁹³ The fisheries cooperatives inform the Fisheries Agency of the total catch from the preceding year, including catches permitted in excess of the yearly quota, and the number is usually set at that level. For instance, the total catch for 1994 in the Ogasawara Islands was around 98 turtles.⁹⁴ For

88. CARR, *supra* note 14, at 10-12. Bycatch as it relates to sea turtles, is the unintentional capture of marine turtles during shell fish and fin fish fisheries operations.

89. Interview with Kazuo Horikoshi, Ph.D., research staff, Marine Environmental Ass'n of Tokyo, in ChiChiJima, Japan (Sept. 23, 1994).

90. Interview with Morio Kaneko, *supra* note 60.

91. *Id.*

92. See generally Michael K. Young, *Administrative Guidance in the Courts: A Case Study in Doctrinal Adaptation*, in LAW AND SOCIETY IN CONTEMPORARY JAPAN AMERICAN PERSPECTIVES 85, 87 (J.O. Haley ed., Kendall/Hunt 1988).

93. Interview with Morio Kaneko, *supra* note 60.

94. Interview with Kazuo Horikoshi, *supra* note 13.

1995, the quota was set at 150; 100 for Ogasawara and 50 for Hachijoji Retto, another group of islands closer to Tokyo.⁹⁵ Scientists working on marine turtle management are not included in the consultations that determine the quota. Thus, from the conservation standpoint, many problems arise. Since the returning populations vary year to year, it is difficult to assess the returning population in one year and then set the quota for the following year based upon that figure. Therefore, even a lower quota, let alone an expansive quota system, may cause significant harm to a population in a low return year.

Another problem with administrative guidance arises when decisions are made without the ability of conservation biologists to comment on those decisions. For instance, marine turtles are generally very difficult to catch at sea. This prompted fishermen to request permission to catch nesting females on the beach in order to reach or exceed the allowed number of turtles that year.⁹⁶ On at least one occasion, the Fisheries Agency has approved such a request and issued administrative approval accordingly.⁹⁷ About 40 females were "turned"⁹⁸ on the beach that season. Since females will nest three to four times during one season, this type of "fishing" is considered by scientists to be particularly deleterious to the future survival of the species. In addition, because certain communities like to eat marine turtle eggs, there is an incentive for the fishermen to turn a female before she has deposited her clutch. The eggs are then legally harvested from the female during the slaughter. As such, they can be legally traded, whereas the taking of eggs is generally prohibited throughout Japan. Permission to turn the turtle in this case was granted by administrative guidance, which consisted of a series of telephone calls between officials and members of fisheries associations. Biologists involved in marine turtle conservation were unaware of the change until after the fact.⁹⁹ In this respect, administrative guidance issued without consultation with conservation biologists can negate any recent movement towards a conservation program.

A third example of administrative guidance negating conservation efforts is the approach towards bycatch of marine turtles.

95. Interview with Morio Kaneko, *supra* note 60.

96. Interview with Kazuo Horikoshi, Ph.D., research staff, Marine Environmental Ass'n of Tokyo, in ChiChiJima, Japan (Oct. 1, 1994).

97. *Id.*

98. Female turtles come ashore to dig nests and deposit eggs. Fishermen were allowed to "turn" the landed turtles on their backs as a method of capture. Taking of female turtles of breeding age is considered especially detrimental to the survival of the species because only a small percentage of hatchlings reach maturity.

99. Interview with Kazuo Horikoshi, *supra* note 13.

Fishing and research vessels are instructed to discard any accidentally caught turtles by throwing them overboard¹⁰⁰. Scientists studying bycatch problems in the U.S. have determined that marine turtles caught in a long line or net may have a chance of recovery even if they become comatose due to prolonged, involuntary submergence.¹⁰¹ In fact, the U.S. National Oceanic and Atmospheric Administration and the National Marine Fisheries Service involved American fishermen in a program which taught them how to resuscitate a comatose turtle.¹⁰² In addition, fishermen are instructed to keep comatose turtles on board their vessels for up to 24 hours, if possible, to allow for potential recovery.¹⁰³ In contrast, the Japanese Fisheries Agency directs fishermen to throw comatose turtles back into the sea. It seems that the instructions to throw bycatch overboard rather than to engage in minimal efforts at resuscitation are designed to avoid any criticism about bycatch in general. Fisheries cooperatives are not required to report bycatch at all. Since scientists consider an accurate mapping of population demography essential to the construction of a comprehensive conservation program, those Fisheries Agency policies are especially detrimental to marine turtle charting and conservation.

C. FISHERIES ADJUSTMENT COMMISSIONS

Another important source of regulations over marine turtles in Japan is the system of "fishery adjustment commissions". In each prefecture with coastal fisheries there is at least one fishery adjustment commission. If one fishery is located in adjacent prefectures, that fishery is then overseen by a "combined fishery adjustment commission." Under the provisions of The Fishery Law, the prefectures are responsible for enacting regulations which manage the fisheries within their jurisdiction.¹⁰⁴ The prefectures must, however, clear any regulations through the lo-

100. *Id.*

101. *DECLINE OF THE SEA TURTLES*, *supra* note 15, at 90-92. Sea turtles may drown in two ways, dry drowning and wet drowning. Dry drowning results when the larynx is closed by a reflex spasm, both water and air are prevented from entering the lungs and the animal dies from asphyxiation. During wet-drowning water enters the lungs, thereby damaging the lungs. Water temperature, the animal's metabolic rate and other factors greatly influence whether or not a retrieved comatose turtle can recover from a drowning episode. Blood carbon dioxide levels and stress-related hormones as well as lactic acid concentrations may, in some cases, return to normal values after time intervals as long as 24 hours.

102. 50 CFR Ch. 11 § 227.72 (B)(1)(2), NATIONAL MARINE FISHERIES SERVICE/NOAA, COMMERCE (Oct. 1, 1993 Edition), at 152.

103. *DECLINE OF THE SEA TURTLES*, *supra* note 15, at 91.

104. Motokichi Morisawa and Kevin Short eds., *International Perspectives on Fisheries Management*, 1991 PROC. JIFRS/ILFET/ZENGYOREN SYMP. ON FISHERIES MGMT. 35 [hereinafter *International Perspectives*].

cal fisheries adjustment commission. Thus, the prefectures are unable to initiate conservation schemes in those fisheries deemed economically important by the fishery adjustment commissions.

It might seem that the national fishery adjustment commission would be ideally suited as a national structure that could promote conservation through local fishery adjustment commissions. Indeed, directives on the order of administrative guidance can be issued from the national to the local commissions. However, in fact, instances of these requests are infrequent, leaving the local fisheries industries self-regulating for the most part.¹⁰⁵

Fishery interests dominate the regulatory process over fisheries. Each commission is comprised of twelve to fifteen members, nine of which are fishermen.¹⁰⁶ The remaining members are academics and scientists. Scientists engaged in extra-governmental conservation are rarely consulted by the committees, and normally do not serve on them.¹⁰⁷

In Japan, a fisherman must be a member of the local fishery cooperative association ("FCA").¹⁰⁸ There are about 2,000 local FCAs in Japan, one prefecture FCA in each of the prefectures, and one national FCA.¹⁰⁹ Local FCAs influence the prefecture FCAs, which in turn influence the fishery adjustment commissions. In this way, the FCAs wield more power than the prefecture governments over fisheries regulation.

For the most part, each local FCA is self regulating and strongly protects its members' fisheries rights (*gyogyoken*). This system of regulation dates back to the seventeenth century when the Shogun granted each village surrounding Tokyo Bay exclusive rights to fish in the area immediately before the village.¹¹⁰ In return the village paid a tribute of seafood to the Shogunate. With the Meiji restoration, many laws were rewritten and based on European models. The fishery rights system, however, remained intact and is the basis for the system used today.¹¹¹

Fishery rights are owned by the FCAs which parcel them out according to their own rules. Thus, the local nature of the fishing enterprises remains intact. Fishermen have a great deal of power

105. Letter from Mr. Iwata, Coastal Fisheries Division, Fisheries Agency Ministry of Agriculture, Forestry and Fisheries (Dec. 13, 1994).

106. *International Perspectives*, *supra* note 104.

107. Interview with Kazuo Horikoshi, *supra* note 13; interview with Hiroyuki Saganuma, *supra* note 84.

108. *International Perspectives*, *supra* note 104, at 73, 79. Fishery cooperative associations ("FCAs") provide credit, marketing services and supply necessary fishing materials to members as well as divide fishing rights amongst members.

109. *Id.* at 72.

110. *Id.* at 31.

111. *Id.* at 75-76. Meiji is the name of an era (1868-1911) named for the Meiji Emperor who ruled during that time.

in determining what can be fished and where it can be fished. Regulations concerning catch quotas are usually set through consultation between the local fishery interests and the local government. One commentator, Kevin Short, has stated that the positive side of the fishing rights system in Japan is that enforcement is quite easy. He reasons that because the fishermen are making the regulations, the fishermen will obey them. Conversely, he argues that if a system operates from the outside, the fishermen "will do everything they can to get around them."¹¹² Thus, the incentive to conserve stocks works to the extent that it regulates species that are of economic import to the fishermen.

Low demand or low profit species, such as marine turtles, enjoy no such conservation measures coordinated at the local level unless the turtles themselves become a tourist attraction, and thus an economic commodity. Although a ministry could direct conservation policy from a national level, it is rarely used. Usually, regulations are coordinated into a fisheries management scheme in cases where a species might be in one area, thereby depriving an adjacent area its fair share of the resource. Since fisheries management problems are often local in nature, it is usually the local fisheries cooperative associations that call attention to problems and are considered the best source of advice for solving problems.

The application of this fishery adjustment commission system to the marine turtle issue is problematic. There are few regulations and no coordination of the few regulations that have been enacted. A typical regulation sets the fishing season and minimum size limits on turtles, requires permit acquisition, and prohibits the taking of female turtles at certain times of the year.¹¹³ Information regularly flows from the local fisheries associations to the Fisheries Agency where problems and requests are routinely solved through administrative guidance, as seen in the example of the catch quota adjustment in Ogasawara.

These problems are illustrated by the regulations of the Tokyo City-Ogasawara Islands and those of the Okinawa Prefecture. If the goal of the overall regulatory scheme is conservation of an endangered species, these regulations are clearly inconsistent and incomplete. Ogasawara¹¹⁴

Chapter 35

112. Telephone Interview with Kevin Short, Ph.D., in Tokyo, Japan (Feb. 7, 1995).

113. Tokushima Prefecture Fisheries Adjustment Regulations, Law No. 56, ch. 35, Feb. 10, 1965; Okinawa Prefecture Fisheries Adjustment Regulations, Law No. 143, chs. 33-34, Sept. 12, 1972; Tokyo City Fisheries Adjustment Regulations, Law No. 160, chs. 35-36, July 13, 1965.

114. Tokyo City Fisheries Adjustment Regulation, Law No. 160, July 13, 1965.

(1) From June 1 through July 31 one cannot catch Green turtles in Ogasawara

(2) One cannot take eggs of the Green turtle

(3) It is illegal to possess or trade turtles or eggs taken in violation of the prohibition

Chapter 36

(1) The carapace length of the turtles caught shall be greater than 75 cm.

Chapter 56 (punishment)

(1) Those violating these prohibitions may be fined up to ¥100,000 or up to six months in jail, or both. Okinawa Marine Area Regulation No. 143¹¹⁵

Chapter 33

(1) If you are a member of a fisheries association, and therefore a holder of fisheries rights, and require the marine turtles for mariculture operations, you are exempt from the following limitations:

Hawksbill, Green and Loggerhead species cannot be caught from June 1 through July 31.

(2) It is forbidden to take eggs.

(3) It is illegal to possess or trade illegally caught marine turtles

Chapter 34

(1) It is forbidden to take Hawksbill turtles with a larger carapace length of 25 cm.¹¹⁶

(2) It is illegal to possess or trade illegally caught marine turtles.

Chapter 40

There is a general exception to the prohibitions if the taking is for research purposes or mariculture, as long as the head of the jurisdiction grants permission for such activities. In addition, eggs can be taken from the wild by permission if they are needed for mariculture.

Chapter 50

(1) Those violating these prohibitions may be fined up to ¥100,000 or up to six months in jail, or both.

(2) Boats, equipment, etc. used in the illegal act may be confiscated, and in those cases where confiscation is impossible, the fine may be raised.

In addition to the prefecture regulations, the fishery adjustment commission directives instruct prefectures to provide ex-

115. Okinawa Prefecture Fisheries Adjustment Regulations, Law No. 143, chs. 33-34, Sept. 12, 1972.

116. Inconsistency between regulations concerning marine turtles is illustrated by the regulation in Ogasawara which prohibits the taking of turtles whose carapace is smaller than 75 cm and that of Okinawa which prohibits the taking of turtles whose carapace is longer than 25 cm. Actually, since all species of marine turtles are endangered, the taking of any sized member can be expected to have adverse consequences for conservation.

ceptions for research experiments, mariculture, and on a case by case basis upon approval of the commission. The directives also limit the taking of female turtles during the prohibited period. The directives require that the permits issued for catching marine turtles be carried at the time of the catching and that reports be made regarding the total catch by the end of the year.¹¹⁷

Scientists note that marine turtles migrating from Ogasawara are getting caught by fishermen in Japan's southern prefecture of Okinawa.¹¹⁸ In fact, the greatest number of exception permits issued in 1990 was in Okinawa prefecture.¹¹⁹ Also, since mariculture experiments world-wide are generally considered to have failed, the idea of an exception to gather eggs for use in mariculture seems unwarranted.¹²⁰ Ogasawara scientists estimate that even if a closed cycle farming effort were successful, each mature turtle would cost about ¥600,000.¹²¹ This cost is prohibitive; farming or ranching of marine turtles in Japan is not a viable economic endeavor.

The laws are varied, and although some are aimed at conservation, the lack of uniformity in regulations has actually hampered the efforts of wildlife scientists who are collecting data which would aid in the construction of a comprehensive marine turtle conservation regulatory scheme. For instance, a population which normally nests in one prefecture may get caught in another prefecture's fishing lines during the non-nesting season. Thus, scientists who chart the population dynamics of the species in Japanese waters may well receive insufficient data.

Another example of the lack of a real conservation policy is the decision to allow the capture of turtles with a carapace length of seventy-five or more centimeters.¹²² The harvesting of larger turtles has been criticized in scientific literature as insupportable in view of the well documented evidence that taking large pro-

117. KaikuGyogyōchōseiinkaishijishu, 1992 [Directives of the Fisheries Adjustment Commission] collected by the Zenkokukaikugyogyōchōseiinkairengokai [National Fisheries Adjustment Commission].

118. Interview with Kazuo Horikoshi, *supra* note 13.

119. Okinawa Suisanshinkyōka [Okinawa Fisheries Division]. In 1991 the permits issued were:

Tokyo	56
Wakayama	15
Kochi	4
Okinawa	203.

120. Donnelly, Marydele, *SEA TURTLE MARICULTURE: A REVIEW OF RELEVANT INFORMATION FOR CONSERVATION AND COMMERCE*, Nov. 1994, at 59, 62, 66. Discussing problems with the Cayman Turtle Farm and the Compagnie Reunionnaise d'Aquaculture et d'Industries Littorales.

121. Interview with Kazuo Horikoshi, Ph.D., research staff, Marine Environmental Ass'n of Tokyo, in ChiChiJima, Japan (Sept. 20, 1994).

122. Tokyo City Fisheries Commission, Reg. Ch. 36, 1965.

ductive turtles is severely detrimental to the population.¹²³ Also, although the height of the nesting season is from June to September, some nesting begins in the month of May. Furthermore, despite prohibiting the taking of eggs, the harvesting of eggs from females is not penalized.

Some prefectures, however, have attempted to give more detail to the regulations and directives of the marine areas committee. This attempt has not translated into more protection for the marine turtles. For instance, in Kagoshima prefecture, the Kagoshima Prefecture Marine Turtle Protection Ordinance¹²⁴ declares that "as marine turtles are a precious part of nature and have academic and cultural worth, the prefecture, city, town, and villages and its people should cooperate to protect marine turtles so that people will have marine turtles in the future."¹²⁵ The ordinance prohibits the catching of marine turtles or taking of eggs on the seashore with exceptions for the capture of turtles as needed for emergency medical care, to fulfill the requirements of protective measures of the prefecture or state, or in instances where the mayor determines that the act will not inhibit protection of marine turtles as a whole.¹²⁶ Although Kagoshima prefecture attempted to enact a conservation scheme, this scheme, as is any other prefecture conservation scheme, is subordinate to the fishery adjustment commission approved regulations. Therefore, the legal effect of the local ordinances is actually quite minimal.

Some local communities have instituted stricter regulations, by taking advantage of the general statement in prefecture regulations that some degree of conservation should be practiced by local governments at the city (*shi*), town (*machi*), and village (*mura*) levels. In Tokushima, one local government has gone to great lengths to protect the local marine turtle population. The city built a marine turtle museum and holds educational events during the nesting season.¹²⁷ People are allowed to watch the nesting females and some eggs are taken from nests and, after hatching, the hatchlings are released into the sea. About 100 hatchlings are kept for the year and released the next year. According to the local ordinances, no unauthorized person is to touch the marine turtles.¹²⁸ This has been applied even to scien-

123. NOAA Technical Memoranda, *supra* note 21, at 26.

124. Kagoshima Prefecture, Kagoshima-ken Umigamehogojyorei jyorei, dai 6 go, [Protective Regulation for Marine Turtles, Regulation No. 6], Showa 63, Mar. 28, 1988.

125. *Id.*, ch. 1.

126. *Id.*, ch. 5.

127. *The Hiwasa Chelonian Museum: Local Town Leads in Domestic Sea Turtle Conservation Efforts*, JAPAN ENVIRONMENT MONITOR, Aug. 31, 1990, at 17. In 1967, Hiwasa town had its beach and turtles designated a National Treasure.

128. Interview with Kazuo Horikoshi, *supra* note 13.

tists who wish to tag nesting females in order to chart population dynamics. Thus, these ordinances, while restrictive, are not necessarily helpful in the conservation of the species as a whole.

D. JURISDICTION TO CONTROL HABITAT

The Ministry of Construction has power to permit construction on beaches where marine turtles nest.¹²⁹ Beach-front construction can devastate a nesting beach environment, making it unsuitable for nesting females. Lights often disorient nesting females and emerging hatchlings. Nesting females may avoid the nesting beach or may dig a nest in a place which will suffer from abnormal incubation temperatures, inundation from sea water, or make the mad dash of hatchlings difficult or impossible. Disoriented females wander onto roads where they are hit by vehicles, become stranded or unable to navigate the shoreline.¹³⁰ Disoriented hatchlings suffer high mortality rates when they straggle in sand dunes or scramble to seaside roads rather than making it to the relative safety of the ocean. The Ministry of Construction, however, is under no obligation to perform environmental assessments to determine the possible effects of its public works projects unless the area is under the jurisdiction of the Environment Agency. At present, only 4 out of Japan's 59 jurisdictions require by law that an environment impact assessment be made before construction.¹³¹

The Environment Agency does have power to control construction in areas such as national parks and other specially designated areas created under the new Law for the Conservation of Endangered Species of Fauna and Flora. To date there have been no designated areas under the endangered species law, although two areas are awaiting approval.¹³²

The case of marine turtles illustrates how poorly the current division of power operates to protect the only land-based action on marine turtle nesting. For example, in 1993, the Emperor and Empress visited the Ogasawara islands. The preparations for the one day visit included the construction of a large hotel on a beach where the turtles usually nest. As the imperial visit

129. Interview with Hitoshi Ishikawa, in ChiChiJima, Japan (Sept. 26, 1994).

130. *Rare Hawksbill Killed in Hawaii*, MARINE TURTLE NEWSLETTER, No. 63, Oct. 1993, at 26.

131. Interview with Tatsuo Ihara, in Tokyo, Japan (Nov. 19, 1994). Jurisdictions with mandatory Environmental Impact Assessments Regulations:

- 1) Hokkaido
- 2) Tokyo City
- 3) Kanagawa Prefecture
- 4) Kawasaki City.

132. Interview with Tatsuo Ihara, in Tokyo, Japan (Nov. 18, 1994).

neared, the construction work took place around the clock and, thus, necessitated the use of large bright lights very near the beach. Only after the construction began did the city official casually contact the marine turtle specialists on the island to ask about the effects of such lights on the female turtles expected to come ashore during the construction period. The scientists asked the construction crew to immediately report any nesting female to them. They planned to take the eggs and hatch them at a research center, thereby avoiding the destruction of the eggs by the construction crew or the disorientation of the hatchlings by the lights. Not one turtle nested on that beach that season.¹³³

VI. CONCLUSION

The domestic regulatory scheme over marine turtles in Japan is not in concert with the spirit of CITES, to which Japan is a signatory. There are many structural reasons for the lack of commitment to conservation. However, the main impediments to a comprehensive scheme seem to be a lack of interest on the part of the national government to direct a national policy on endangered species in general and the strength of the local fisheries cooperative associations. It has been difficult to counter the insistence that all marine species are fisheries resources. The problems could be alleviated if the jurisdiction for the species were shifted to the Environment Agency and if that Agency could effectively translate conservation goals into domestic incentives, policies, laws, and legal enforcement. The fate of the marine turtles may well hang in the balance.

133. Interview with Hiroyuki Sugamuma, Subdirector, Marine Environmental Ass'n of Tokyo, in ChiChiJima, Japan (Oct. 1, 1994). Although green turtles do show limited nest site flexibility, there are few suitable nesting beaches. In Ogasawara many beaches are infested with ghost crabs which consume the clutch of eggs and other beaches have too high of a water saturation level. Under either circumstance the hatching rate is low or nil.