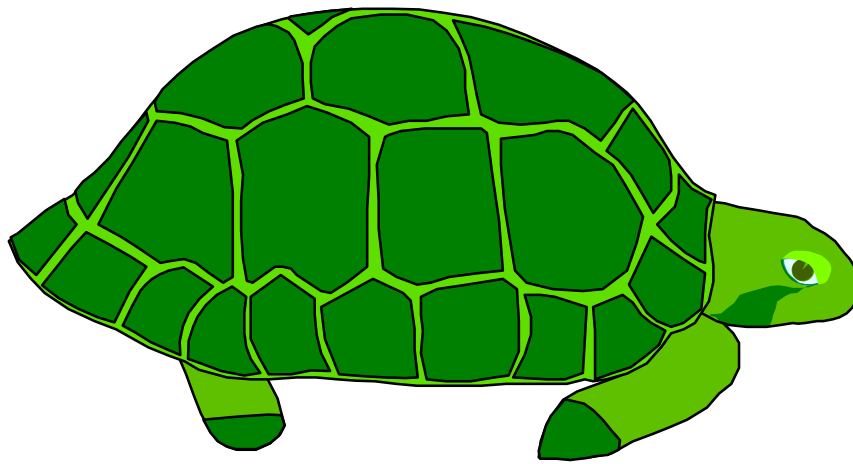


**Sea Turtle Mortality, Shrimp Fisheries, and International Trade:
A Case Study of a Global Natural Resource Conflict**



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Nature of the Conflict

In the past thirty years there has been a growing movement in the United States towards the preservation and protection of natural resources. The Endangered Species Act of 1973 was one of several pieces of legislation that provided environmentalists with the leverage necessary to achieve such goals. Some of the most high profile and contentious natural resource conflicts during this time have involved the protection of species on the brink of extinction. The environmental movement in the U.S., and in particular the focus on saving endangered species, has been paralleled by similar concerns abroad. Due to the trans-boundary, migratory behavior of many animals, protection of endangered species often involves international cooperation. This is especially true of marine animals (such as sea turtles, whales, dolphins, sharks, and tuna) which swim thousands of miles as part of their normal life cycles. As a result, several concerned nations have signed multi-lateral environmental agreements with provisions that further the objectives of the ESA. These include the Convention on International Trade in Endangered Species (CITES), United Nations Convention on the Law of the Sea, Rio Declaration Convention on Biodiversity, and the Inter-American Convention on the Protection and Conservation of Sea Turtles.

Interest in protecting the “global environment” has gained considerable attention in the past few decades. The largest and most politically powerful non-government environmental organizations in the U.S. have offices all over the world. These well-organized groups spend considerable amount of time, energy, and money protecting natural resources outside of the United States. The popular bumper sticker slogan “Think globally, act locally” that has been a rallying call for grass-roots environmentalism in this country, requires a certain trust that communities worldwide will do the same. However, if other nations are not doing their part in protecting the world’s shared natural resources, what role should an environmentally conscious, super-power such as the U.S. play?

Aside from declaring war, which seems rather extreme in the case of protecting an endangered species, the most effective means of foreign persuasion is through control of international trade. The past few decades have not only produced an increased awareness of the “global environment” but also an increased reliance on the “global marketplace”. The international forum for setting trade rules, increasing trade opportunities, and resolving

disputes since 1947 has been the General Agreement on Tariffs and Trade (GATT). In 1994 the World Trade Organization, with 110 member countries, was established as the successor of the GATT (www citation, Texas A&M).

GATT was established primarily to serve as an international agreement with binding power to assure free trade, non-discrimination among nations, multi-lateral decisions, and fair competition. Although it is fundamentally a trade agreement, how the provisions and rules are interpreted by the WTO ruling body can have environmental significance. Due, in large part, to growing global environmental concern, GATT 1994 included exceptions to non-discriminatory trade rules in cases involving 1) protection of human, animal or plant life or health, and 2) conservation of exhaustible natural resources.

The balancing of environmental protection goals with economic development goals has been the source of much conflict, debate, and case law in the United States. Recently, conflicts of this nature have also taken center stage on a global scale. The 1992 Rio Declaration on Environment and Development was an important first step in providing countries with guidelines to achieve the proper balance (Findley and Farber 1995). The environmental consequences of how these, often conflicting, goals are resolved, and the political implications that such decisions carry may go a long way in determining the future health and safety of the planet.

Case Background

The Turtle Dilemma

Sea turtle populations have declined dramatically and all species are threatened with extinction (WTO Final Report, 1998). Six out of seven species are listed as endangered in the CITES and five species are protected under the ESA. This decline can be directly attributed to anthropomorphic causes which include the direct harvest of turtles, pollution, destruction of nesting habitat, and incidental mortality. While measures have been taken to eliminate sea turtle harvest throughout the world and many countries have developed nesting habitat protection programs, the problem of incidental capture still exists.

Sea turtles are highly vulnerable to drowning in shrimp trawl nets. The link between shrimp trawling and turtle deaths was identified as a global threat in the 1970's (CMC, 1997). The 1982 Sea Turtle Conservation Strategy identified bycatch as a major threat to many sea turtle populations (CMC, 1997). The Marine Turtle Specialist Group of the World Conservation Union identified reduction of mortality due to fishing trawls as a priority action item (CMC, 1997). It is generally accepted that the most destructive influence on sea turtles in the past few decades has been large-scale shrimp trawl fisheries on the open seas (www citation, Texas A&M). One study estimated that 124,000 turtles are killed by this method of fishing each year (www citation, Texas A&M).

U.S. Government Solutions and Stakeholder Reactions

In response to this problem, in the early 1980's National Marine Fisheries Service (NMFS) researchers began working on a shrimp trawl modification device that would allow turtles to escape capture. What they came up with was a turtle excluder device (TED). Early studies showed that proper use of TEDs resulted in a 97% reduction in sea turtle deaths due to trawling (www citation, Texas A&M). Furthermore, NMFS claimed that the use of TEDs did not result in any significant loss of shrimp (U.S. Second Submission to WTO 1997). This claim was questioned by shrimp fishermen in the Gulf of Mexico who as a group were adamantly opposed to modifying their gear (Margavio et al. 1996). Initial attempts to get shrimp fishermen in the Gulf to use TEDs voluntarily were largely unsuccessful (Margavio et al. 1996).

NMFS attempts to make TEDs mandatory in the U.S. through regulations were challenged by the shrimp industry. Although TED regulations were first issued under ESA in 1987, shrimpers throughout the Gulf successfully postponed implementation through court appeals, political reprieves, and even by threatening to blockade Gulf ports. It was not until late 1989 that mandatory use of TEDs would be enforced in the Gulf. However, from 1989 through 1991 TED violations by U.S. shrimpers in the Gulf were widespread and enforcement was difficult (Margavio et al. 1996). Since 1991, noncompliance with the TED regulations has probably decreased in the U.S. However, as recently as 1995 NMFS

threatened shrimpers with tougher regulations, including bans on shrimping in area experiencing high turtle mortality.

As the domestic conflict over the use of TEDs in U.S. shrimping operations was raging, efforts were underway to impose similar gear regulations on foreign shrimp trawlers. In 1989, Congress enacted Section 609 of Public Law 101-162 that requires all shrimp-importing nations be certified as having sea turtle protection programs compatible with those in the U.S. Under Section 609 a complete ban must be placed on importation of shrimp harvested from any uncertified nation (WTO Final Report, 1998). Specific guidelines for the implementation of Section 609 were first issued in 1991. Due to narrow interpretations of Section 609 by the Bush and Clinton Administrations, only Caribbean and Western Atlantic countries had to be certified as turtle-safe. Affected countries were offered extensive training on the proper use of the new TED technology, and were given lengthy phase-in periods of up to three years (WTO Report of the Appellate Body 1998). All fourteen countries in the Caribbean and Western Atlantic implemented TED technology and were originally certified by the U.S. Department of State (www citation, Texas A&M). While some of these countries let their certification slip and where embargoed for short periods of time (one month at most), for the most part they continued to use TEDs (Angela Somma NMFS pers. comm.).

While Section 609 was clearly an important step towards sea turtle recovery, the narrow interpretation of this law did nothing to reduce high sea turtle mortality rates from shrimp fisheries in the Pacific and Indian oceans. Shortly after these guidelines were released several environmental organizations filed a class-action suit against the U.S. government (www citation, Texas A&M). Earth Island Institute, among others, claimed that the guidelines limiting the geographic scope of turtle protection were illegal and not in accordance with Section 609 or the ESA. In December of 1995, more than three years after suit was filed, the U.S. Court of International Trade (CIT) ruled in favor of the environmental groups (WTO Final Report, 1998). The CIT directed the U.S. Government to ban importation of shrimp or shrimp products from any country where wild harvested shrimp were being caught with nets that adversely affected sea turtle conservation efforts. The CIT placed a May 1, 1996 deadline on implementation of the shrimp embargo for non-certified countries (WTO Final Report, 1998). This imminent deadline, imposed by the U.S. legal

system, gave newly affected nations roughly four months to alter their shrimp harvesting practices.

The Embargo Deadline

As a result of the CIT decision, 49 out of 70 shrimp exporting countries were warned by the Clinton Administration that they may be subject to embargo if they did not meet U.S. guidelines by the May 1 deadline. Countries with shrimp fishing grounds in waters that turtles do not inhabit and countries that only retrieve shrimp nets by manual means were exempted. On April 30, 1996 the Department of State certified 36 of the 49 countries for continued export of shrimp into the U.S. (web citation, SeaFax News). As of May 1 there were still several major shrimp exporting countries that were not certified. Nations embargoed included Thailand, China, Honduras, Brazil, Taiwan, India, Bangladesh and Malaysia (web citation, SeaFax News).

An article in the Chicago Tribune on May 4, 1996 claimed that about 60 percent of the domestic shrimp market would be affected by the ban (Liefer, 1996). Lee Weddig, of the National Fisheries Institute, a representative of 1,000 seafood importers and processors, put this estimate at 30 percent (Skou-Moynihan 1996). However, even if only 30 percent of imports are affected Weddig predicted “there is going to be chaos in the domestic shrimp market”. Shrimp is one of the most popular seafood items consumed in the U.S. According to Census data, the U.S. imported \$2.3 billion worth of shrimp and prawns in 1995 (U.S. Census Bureau from Skou-Moynihan 1996). Thus, while the embargo was being lauded as a victory for environmentalist and sea turtles alike, the U.S. government had to deal with serious political opposition from many WTO member countries, and real economic concerns from the domestic seafood industry.

The widespread fears of economic disaster predicted by the U.S. seafood industry never materialized. Eventually most of the embargoed nations received certification from the United States. While some of the certified countries were occasionally found out of compliance and subjected to short-term import bans, on a global scale the overall economic impact of the embargo was minimal. Many foreign shrimping fleets found TEDs both inexpensive to implement and effective at releasing turtles while retaining shrimp. A report

from Malaysia's New Strait Times read: "The use of 20 turtle excluder devices on the west coast has proved effective, and has not affected the amount of fish and shrimp landed by fishermen" (Terengganu 1998).

Thailand was one of the few major shrimp exporters that claimed significant losses of shrimp (30-40%) from TED use (U.S. Second Submission to WTO 1997). When asked to produce the report that supported this claim Thailand refused. Most studies conducted in the U.S. and abroad have shown that if used properly TEDs result in shrimp losses of less than 3% (U.S. Second Submission to WTO 1997). Thailand, which is responsible for 34% of the shrimp and prawns imported by the U.S., was embargoed for five months until obtaining certification in October 1996. (Angela Somma, NMFS, pers. comm.). However, more than three-quarters of Thailand's shrimp harvest is farmed and was not subject to the importation ban (Maneerungsee 21 August, 1998).

By mid-1996 prospects for the reduction of adult sea turtle mortality in shrimp trawls were beginning to improve. U.S. shrimp fishermen in the Gulf of Mexico were begrudgingly using TEDs as routine procedure and most of the major wild shrimp exporting countries were certified as turtle-friendly. Although it had taken longer and was far more contentious than anyone anticipated, the NMFS was successful in its plan to save sea turtles from widespread incidental mortality. While this may have been cause for celebration, another conflict over the U.S. mandate of TED use was just heating up.

Global Reactions

Most of the shrimp exporting nations requested and were granted certification from the U.S. Periods of embargo were temporary and short-term and had relatively insignificant economic impacts. However, there were three shrimp importing countries that were never certified: Pakistan, Malaysia, and India. In October 1996, these three countries and Thailand, the second leading shrimp exporter (after Japan), initiated a dispute settlement process with the World Trade Organization (www citation, Texas A&M). Their claim was that the U.S. shrimp embargo violated obligations of WTO members specified in trade agreements. When the shrimp-turtle case was forwarded to the WTO Dispute Settlement Panel in February 1997, several other nations supported this claim against the U.S. as third party participants.

These included Australia, European Communities, Hong Kong, Ecuador, and Nigeria (WTO Report of the Appellate Body 1998).

None of the countries involved were disputing the facts that 1) sea turtles are endangered, 2) sea turtles are worthy of protection, and 3) shrimp trawls kill sea turtles. In fact, many countries had developed their own sea turtle protection programs prior to the U.S. deadline. Furthermore, six sea turtle species were listed in CITES, a treaty which all four complainants were legally bound to comply with. The fact that many shrimp exporting countries willingly adopted TEDs is further proof of the growing global concern for endangered species. In many ways, foreign shrimp fishermen were less resistant to the new gear technology than were U.S. shrimpers in the Gulf of Mexico. What these countries were disputing was the way the U.S. had chosen to fix a global environmental problem.

Thailand, Malaysia, Pakistan and India all accused the U.S. of violating international trade rules in imposing its domestic law on other nations (Bangkok Post, 12 May, 1998). They argued that WTO members must seek multilateral solutions to trade-related environmental problems. Indian embassy official Shiv Mukherjee said, "India is opposed as a matter of principle to the unilateral American law imposing the trade barrier" (The Statesman, 9 May, 1998). What started out as a well-intentioned attempt by environmental activists to save the sea turtles had ballooned into an international dispute over sovereign rights and self-determination. Whereas the U.S. may view global environmentalism as a responsibility, developing nations tend to perceive environmental mandates as thinly veiled forms of trade protectionism (www citation, Texas A&M). Pakistan's Ambassador to WTO expressed his views on the role of WTO: "If you inject questions of morality, human rights, environmental rights, where do we stop?" (Olson 1998). An article in an Indian newspaper portrayed some of the frustration and anger many countries have towards the U.S.: "One thing is certain that it cannot bully the developing countries any more on the trade issues with the effective functioning of WTO" (The Statesman, 9 May, 1998). Many countries saw the WTO as a means to even the playing field on international trade issues.

The U.S. Position

Sea turtle experts working for NMFS and environmental groups put together a convincing case for the urgent need to protect sea turtles from further demise. Studies have shown that leatherback populations have been declining at a rate of 23% per year, the hawksbill population has decreased by over 80% in the last three generations, and the number of eggs laid by green and olive ridley turtles have declined more than 50% since the 1950's (CMC amicus brief 1997). However, this case was to be decided by a panel of international trade experts, not conservation biologists. The United States had to show that the shrimp import requirements imposed were not in violation of GATT and would not undermine WTO efforts to assure free, unrestricted international trade.

The U.S found justification for its actions in both the WTO Agreement and GATT 1994. The preamble to the WTO Agreement states that rules of international trade must “allow for the optimal use of the world’s resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment” (WTO Agreement in U.S. Second Submission to the WTO 1997). More specifically the U.S. pointed to Article XX (b and g), of GATT 1994 titled General Exceptions:

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, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any Member of measures:

- (b) necessary to protect human, animal or plant life or health;
- (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption;

In July 1997 the U.S. submitted a report to the WTO Dispute Panel defending their import restrictions. Several NGOs submitted amicus briefs to the WTO in support of the U.S. position.

World Trade Organization Rulings

On April 6, 1998 the WTO Dispute Panel released its final report on the U.S. Import Prohibition of Certain Shrimp and Shrimp Products. The Panel ruled that the U.S. import restrictions violated GATT 1994 (WTO Final Report 1998). In particular, the Panel found that Section 609 of U.S. Law 101-162 is incompatible with GATT Article XI:1 that reads:

“No prohibition or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licenses or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party ...”

The Panel also supported the four complainant countries claim that Section 609 violates Article XIII because it discriminates between shrimp caught using TEDs in certified nations versus shrimp caught using TEDs in uncertified nations. Some uncertified countries were using TEDs on some but not all of their shrimp boats.

The U.S. claimed that any contradictions between Section 609 and the two GATT articles cited were fully justified by Article XX Section (b) and (g). The Panel did not support this interpretation of Article XX on the grounds that unilateral domestic laws (such as Section 609) presented a serious threat to the multilateral trading system that WTO was charged with protecting. The Panel’s conclusions echoed a previous GATT ruling involving protective measures for dolphin in tuna fishing operations. While the WTO Panel was convinced that the use of TEDs was necessary and beneficial and that virtually every WTO member country agreed, they were hesitant to set a precedent that would “affect the security and predictability of the multilateral trading system” (WTO Final Report 1998).

While the WTO decision was hailed as a victory for sovereign rights and multilateral negotiations abroad, environmentalists and trade experts in the United States heavily criticized it. Environmental groups accused WTO of “gutting environmental laws” and “trumping the U.S. democratic process” (Olson, 1998). Some groups portrayed the WTO as a secretive, faceless, autocratic institution with no regard for environmental or social issues (Olson 1998, www citation Earth Island). Earth Island Institute, the environmental group that originally filed suit to apply Section 609 globally, started a campaign to boycott shrimp not certified as turtle-safe (Doyle 1998). U.S. trade representative Charlene Barshefsky was

also critical of the Dispute Panel for reaching “the wrong conclusion” (Olson 1998). In July 1998 the U.S. submitted a formal appeal of the Panel’s ruling to the WTO Appellate Body.

On October 12, 1998 the Appellate Body issued its report on the shrimp importation issue. They found that the U.S. import restriction “qualified for provisional justification” under Article XX (g), but failed to “meet the requirements of the chapeau of Article XX, and, therefore, is not justified under Article XX” (WTO Report of the Appellate Body 1998). The Appellate Body found evidence of unjustifiable discrimination because the U.S. treated affected countries differently in the following ways: 1) the U.S. negotiated seriously for multilateral agreements with some countries but not all, 2) U.S. efforts to transfer TED technology varied, and 3) the length of phase-in period for TEDs varied from four months to three years. Furthermore, the Appellate Body found that the lack of flexibility in how countries are determined constitutes arbitrary discrimination by the U.S.

According to NMFS sea turtle expert Angela Somma, this ruling represented both a loss and a win for the U.S.. Arguably, the greatest limitation the U.S. faced in abiding with the chapeau of Article XX was that of time. The Court of International Trade’s embargo deadline of May 1, 1996 made it virtually impossible for the U.S. to work with affected countries in the manner required under GATT. However, had steps been taken toward a multi-lateral agreement, in a non-discriminatory manner, such a trade restriction would have been justifiable according to this ruling. This is significant because it puts some teeth into Article XX (g) and gives it the broad interpretation that the “exhaustible natural resources” worthy of conservation do not have to be within the acting country’s jurisdiction. According to Somma, the four appellees in this case were not satisfied with the Appellate Body’s ruling. She also said that the U.S. is still deciding whether to comply with the WTO ruling which could require compensation for or retaliatory measures from the four Asian countries.

Perhaps the fact that neither side was completely satisfied (or completely dissatisfied) should be taken as a sign of a fair decision on the part of WTO. In the end, however, WTO officials were not happy either considering all the negative publicity and criticism their organization faced throughout this conflict. The Head of WTO, Renato Ruggiero, insisted that the organization was “not against endangered species” (Olson 1998). He believes that WTO members must agree on a new way to handle environmental issues. Ruggiero has

called for a gathering of trade and environment ministers, by early 1999, to “face the realities and see how we can make an alliance” (Olson 1998).

Conclusions

Natural resource conflicts generally fall into one of three broad categories. Conflicting parties can be seen as coming from 1) the same reality with similar values, 2) the same reality with different values, or 3) different realities altogether (Robert Muth, pers. comm.). It seems clear that the conflicting countries (U.S. versus Thailand, Malaysia, India and Pakistan) are all working within the same reality. All five have signed the CITES and therefore would agree, in principal, that endangered species are worth saving. Certainly one could find individuals from each side that are existing in different realities. The U.S. animal rights activist, who is opposed to killing sea turtles even if the populations rebound and a sustainable harvest was possible, is not sharing a reality with the Thai fishermen who can support his family by selling turtle shell and meat. Ironically, both would like to see sea turtles removed from the endangered species list, but for very different reasons. However, since this is an international conflict, the positions brought to the table, by each party, should represent the country as a whole. They should be supported by domestic laws and international treaties (ESA and CITES) which represent society's values. Sea turtles are only protected by law in both Thailand and the U.S. as long as they are listed. If sea turtles recover and are de-listed under ESA, it is feasible that our society would allow harvest and importation of turtle products again.

Perhaps the more difficult question is whether or not the disputants share the same values. All five countries share similar values regarding the economic importance of harvesting shrimp, the importance of the free-trade system, and the need to protect endangered species. However, the weight given to each value and the prioritization of those values when they conflict with each other is another matter. The environment has become a priority agenda item for many U.S. citizens, whereas in many undeveloped nations the environment is still viewed as an obstacle to free trade and development. In this sense the values of the conflicting countries are, in fact, quite different.

The shrimp-sea turtle conflict presented here raises some interesting issues regarding the compatibility of global environmentalism, free international trade, and sustainable development. In this particular case, the goals of protecting an endangered species and sustaining a shrimp fishery were not incompatible. If used properly TEDs do not result in any significant economic loss for shrimp operations. However, if the U.S. were to unilaterally impose an import restriction that does result in economic hardship for exporting nations, the conflict will be much more contentious. The countries arguing against the U.S. in this case were trying to prevent such a scenario by not allowing a precedent for such unilateral trade restrictions. Conflicts of this nature are likely to increase given the current rates of economic development and loss of biodiversity throughout the world. The Rio Declaration lists 27 specific “principles” for the world to follow in balancing environment with development. The time has come to put some of these principles into practice.

While the U.S. may strive to take the higher ground on global environmental issues, we are certainly in no position to cast the first stone. It took nearly 30 years, from the time shrimp trawls were identified as a serious threat to turtles, for protective measures (TEDs) to be implemented and enforced in the U.S. The U.S. has a history of ecological destruction, species extirpation, resource depletion, and waste generation that paved our way to becoming an industrialized super-power. Even after our “environmental awakening”, per capita natural resource consumption rates in the U.S. are still significantly higher than most of the world. When dealing with other countries on environmental issues, and particularly developing countries, it is important that we understand their goals and respect their right to self-determination. It is equally important that we don’t forget our history or our collective responsibility to correct past mistakes.

Sea turtles swam throughout the world’s oceans for more than 100 million years before humans appeared on the planet (CMC amicus brief 1997). In the relatively short time that humans have inhabited earth, we have managed to drive nearly every species of this majestic, ancient creature to the brink of extinction. As children growing up we all learn the parable about the tortoise and the hare. The characters in this modern version are the tortoise’s maritime cousin, the sea turtle, and the rapidly advancing human race. Both stories can teach us valuable lessons. We all know how the children’s version ends. As for the tale of the sea turtles and the humans, only time will tell.

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