

THE UNITED STATES AND RISING SHRIMP IMPORTS FROM ASIA AND CENTRAL AMERICA: AN ECONOMIC OR ENVIRONMENTAL ISSUE?

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In 2001, shrimp became America's favorite seafood, surpassing tuna for the very first time.¹ Shrimp consumption increased from 909 million pounds in 2000 to 1.05 billion pounds in 2002.² Despite the overwhelming demand for shrimp, revenues from commercial shrimping in the United States were down from approximately \$1.25 billion in 2000 to \$560 million in 2002, a 55 percent decline.³ During the same period, however, yearly shrimp imports rose from 466 million pounds to 650 million pounds.⁴ As imports increased, domestic shrimp prices declined. Commercial shrimpers in the United States were struggling to turn a profit.

In 2003, the federal government officially recognized that shrimp imports were causing a decline in domestic shrimp prices.⁵ In November of that year, the U.S. Department of Agriculture's Foreign Agriculture Service determined that shrimp producers in Georgia, South Carolina, and Texas were eligible to participate in the Trade Adjustment Assistance (TAA) program.⁶ Alabama producers became eligible in January 2004.⁷ Under the TAA program, agricultural commodity producers, including commercial fishermen, are eligible to receive cash benefits if an increase in imports has "contributed importantly" to a decline in price.⁸ Shrimpers who marketed

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1. Press Release, National Fisheries Institute, Shrimp, Salmon, Tilapia Rise in Popularity (Aug. 30, 2002), at <http://www.nfi.org/?a=news&b=News%20Releases&x=41>.

2. Certain Frozen or Canned Warmwater Shrimp and Prawns from Brazil, China, Ecuador, India, Thailand, and Vietnam, USITC Pub. 3672, Invs. Nos. 731-TA-1063 to 1068, at 23 (Feb. 2004) (preliminary) [hereinafter Preliminary Shrimp Investigation].

3. 2 Petition *ex rel.* Ad Hoc Shrimp Trade Action Committee at 29, *In re* Certain Frozen and Canned Shrimp from Brazil, Ecuador, India, Thailand, China, and Vietnam, USITC Docket No. 2344 (Dec. 31, 2003), available at <http://www.shrimpalliance.com/Press%20Releases/12-31-03%20Petition.pdf> [hereinafter STAC Petition].

4. Preliminary Shrimp Investigation, *supra* note 2, at 25.

5. *See, e.g.*, Trade Adjustment Assistance for Farmers, 68 Fed. Reg. 65,239, 65,239 (Nov. 19, 2003) (certification of petition of S.C. Shrimpers' Ass'n.). In certifying several such petitions, the Department of Agriculture recognized, state-by-state, that "increased imports of farmed shrimp contributed importantly" to an overall drop in domestic prices. *Id.*

6. U.S. Dep't of Agric., Trade Adjustment Assistance for Farmers, Fiscal Year 2004 Petition Registry, at <http://www.fas.usda.gov/itp/taa/fy04petitions.htm> (last modified Feb. 24, 2005).

7. *Id.*

8. 19 U.S.C. § 2401a(c) (2000).

shrimp in these states in 2002 can apply for cash benefits, which vary by state and are based on the individual shrimper's 2002 harvest.⁹ For example, South Carolina shrimpers will receive eleven cents for each pound of shrimp they harvested that year while Alabama shrimpers will receive one cent per pound.¹⁰

One group of shrimp harvesters and producers, however, was not satisfied with the benefits already available under U.S. laws. In 2003, the Shrimp Trade Action Committee (STAC), a coalition of shrimp harvesters and producers from eight states, petitioned the U.S. International Trade Commission (ITC) to impose antidumping duties on shrimp imports from six countries, including China, Thailand, and Vietnam.¹¹ In February 2004, the ITC ruled that "there is a reasonable indication that an industry in the United States is materially injured" by certain warmwater shrimp and prawn imports.¹²

Part I of this article presents a case study of the petition filed by the STAC and the rulings of the Department of Commerce (DOC). Part II discusses the environmental impacts of shrimp farms. Many of the nations named in the petition have been able to increase exports only through intensive shrimp farming, which enables the year-round, cheap production of shrimp, but at significant environmental cost.¹³ Part III argues that, in light of the World Trade Organization's (WTO) favorable rulings on environmental issues in recent years, the U.S. shrimp industry should refrain from seeking antidumping duties and should instead appeal to the environmental conscience of the American people, as previously done to protect dolphins and sea turtles. U.S. shrimpers would be better served in the long term by using their political clout to secure domestic laws restricting imports for environmental reasons. Such a regulatory regime, if properly designed and implemented, could survive a challenge before the WTO.

I. THE SHRIMP ANTIDUMPING ACTION

On December 31, 2003, the STAC filed a petition with the DOC and the ITC for the imposition of antidumping duties on imported shrimp from

9. See § 2401a(c)-(e) (explaining TAA program eligibility requirements and eligibility renewal in subsequent years).

10. Russ Henderson, *Feds Probe Shrimpers' Claims of Unfair Trade*, MOBILE REG., Jan. 22, 2004, at 3A.

11. STAC Petition, *supra* note 3.

12. Preliminary Shrimp Investigation, *supra* note 2, at 1.

13. See Claude E. Boyd & Jason W. Clay, *Shrimp Aquaculture and the Environment*, SCI. AM., June 1998, at 58, 59-60 (discussing three primary methods of raising shrimp in the tropical world and associated environmental costs).

Brazil, Ecuador, India, Thailand, China, and Vietnam.¹⁴ The petitioners alleged that these six countries were engaging in unfair trade practices by “dumping” farm-raised shrimp onto the U.S. market.¹⁵ The industry sought tariffs on shrimp imports that ranged from 26 percent to an incredible 349 percent.¹⁶ Antidumping duties may be imposed if foreign merchandise is being sold in the United States at less than fair value and a domestic industry is “materially injured, or is threatened with material injury” by the importation of such merchandise.¹⁷ The ITC determines whether a domestic industry is materially injured by the imported products.¹⁸ Upon a finding of material injury, the International Trade Administration—a part of the DOC—calculates the antidumping duties.¹⁹

The U.S. shrimp industry’s response to rising imports has no doubt been influenced by the “successful” antidumping actions of the U.S. crawfish and catfish industries in recent years. Until 1994, Louisiana production of crawfish dominated the U.S. market, accounting for over 90 percent of the total domestic catch.²⁰ In 1994, however, China began exporting crawfish tail meat to the United States. Imports rose rapidly and U.S. consumption increased from 5,271,000 pounds in 1994 to 9,522,000 in 1996—an 81 percent increase.²¹ By 1996, crawfish tail meat from China had attained an 86.8 percent market share.²² The U.S. crawfish industry, when confronted with foreign competition for the first time, responded aggressively.

In 1996, the Crawfish Processors Alliance initiated an antidumping action against crawfish imports from China.²³ In August 1997, the ITC determined that crawfish tail meat imports from China materially injured domestic industry, paving the way for the imposition of antidumping

14. STAC Petition, *supra* note 3.

15. *Id.* at 1.

16. INT’L TRADE ADMIN., INITIATION OF ANTIDUMPING DUTY INVESTIGATIONS: CERTAIN FROZEN AND CANNED WARMWATER SHRIMP FROM BRAZIL, ECUADOR, INDIA, THE PEOPLE’S REPUBLIC OF CHINA, THAILAND, AND VIETNAM 1, *available at* <http://ia.ita.doc.gov/frn/summary/multiple/shrimp-initiation-factsheet.pdf> (last visited Apr. 27, 2005).

17. 19 U.S.C. § 1673 (2000).

18. §§ 1673, 1675c(b)(3).

19. *See* § 1673 (stating that the “Commission . . . shall” impose an antidumping duty upon a finding of material injury).

20. KENNETH J. ROBERTS, LA. STATE UNIV. AGRIC. CTR., IMPORT AND CONSUMER IMPACTS OF U.S. ANTIDUMPING TARIFFS: FRESHWATER CRAWFISH FROM CHINA 1, *available at* <http://oregonstate.edu/Dept/IIFET/2000/abstracts/roberts.html> (last visited Apr. 27, 2005) (paper presented at International Institute of Fisheries Economics and Trade Conference, Microbehavior and Macroresults: IIFET 2000).

21. Crawfish Tail Meat from China, USITC Pub. 3057, Inv. No. 731-TA-752, at *86 (Aug. 1997) (final determination), 1997 ITC Lexis 315 [hereinafter *Crawfish Investigation*].

22. *Id.* at *31.

23. *Id.* at *1.

duties.²⁴ The imports included all forms of freshwater crawfish tail meat, but excluded live and other whole freshwater crawfish and all saltwater crawfish.²⁵ The duties on these imports are still in place today. On August 13, 2003, following a five-year sunset review in which the ITC “determined that revocation of the antidumping duty order on freshwater crawfish tail meat from the [People’s Republic of China] would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time,” the DOC extended the antidumping duty order.²⁶

On December 10, 2001, the U.S.–Vietnam Bilateral Trade Agreement restored the reciprocal most-favored-nation treatment between the two countries.²⁷ One of the first U.S. markets targeted by Vietnam was catfish; the ensuing agreement helped Vietnamese exporters increase their market share to almost 20 percent.²⁸ The U.S. catfish industry immediately cried foul.

In 2002, the Catfish Farmers of America, an association of domestic farmers and producers, and individual catfish processors sought the imposition of antidumping duties.²⁹ An antidumping investigation was instituted on June 28, 2002.³⁰ The ITC examined imports of “frozen fish fillets, including regular, shank, and strip fillets and portions thereof, whether or not breaded or marinated, of the species *Pangasius Bocourti*, *Pangasius Hypophthalmus* (also known as *Pangasius Pangasius*), and *Pangasius Micronemus*” commonly known as “basa” or “tra” in Vietnam.³¹ The subject imports were, therefore, not catfish fillets, but rather fillets processed from basa or tra, similar freshwater white fish grown in cages on the Mekong Delta.³²

The antidumping action continued despite the lack of a domestic basa or tra industry because catfish producers fell within the broad definition of “industry” in the Trade Act of 1930. Industry means “the producers as a

24. *Id.*

25. *Id.* at *5.

26. Continuation of Antidumping Duty Order: Freshwater Crawfish Tail Meat from the People’s Republic of China, 68 Fed. Reg. 48,340, 48, 340 (Aug. 13, 2003).

27. MARK E. MANYIN, LIBRARY OF CONG., THE VIETNAM-U.S. BILATERAL TRADE AGREEMENT 1, 5 (Sept. 9, 2002), available at <http://vietnam.usembassy.gov/wwwfbtacrpt.pdf>.

28. Simon Montlake, *Catfish Row Could Hurt US–Vietnam Ties; The U.S. is Expected to Issue a Final Ruling in June on a Recent Tariff Hike on Vietnamese Exports*, CHRISTIAN SCI. MONITOR, Mar. 12, 2003, at 10.

29. Certain Frozen Fish Fillets from Vietnam, USITC Pub. 3617, Inv. No. 731-TA-1012, at 1 (Aug. 2003) (final determination) [hereinafter *Catfish Investigation*].

30. *Id.*

31. *Id.* at 4.

32. *Id.*

whole of a domestic like product.”³³ “Domestic like product” is defined as “a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation.”³⁴ The ITC determined that frozen catfish fillets were the most similar domestic product to basa or tra.³⁵ Upon the conclusion of its investigations in August 2003, the ITC found that the U.S. catfish industry “is materially injured by reason of imports of certain frozen fish fillets from Vietnam.”³⁶ The antidumping duty order was issued on August 12, 2003, with duties ranging from 36.84 to 63.88 percent.³⁷

The DOC initiated its antidumping investigation of shrimp imports on January 27, 2004.³⁸ In its notice, the DOC defined the scope of imported products covered by the investigation to “include certain warmwater shrimp and prawns, whether frozen or canned, wild-caught (ocean harvested) or farm-raised (produced by aquaculture), head-on or head-off, shell-on or peeled, tail-on or tail-off, deveined or not deveined, cooked or raw, or otherwise processed in frozen or canned form.”³⁹ Fresh shrimp and prawns were excluded from the investigation.⁴⁰

On February 17, 2004, the ITC issued a preliminary injury determination in favor of the STAC, finding “a reasonable indication that an industry in the United States is materially injured by reason of imports of frozen and canned warmwater shrimp and prawns . . . allegedly sold in the United States at less than fair value.”⁴¹ In July, 2002, the DOC announced preliminary tariffs on imports from Brazil, Ecuador, India, Thailand, China, and Vietnam.⁴² The tariffs ranged “from 0.00 to 67.80 percent for Brazil,

33. 19 U.S.C. § 1677(4)(A) (2000).

34. § 1677(10).

35. Catfish Investigation, *supra* note 29, at 5. The ITC considered but excluded tilapia because it is not sold as a frozen product in the United States. *Id.* at 6 n.21.

36. *Id.* at 3.

37. Notice of Antidumping Duty Order: Certain Frozen Fish Fillets from the Socialist Republic of Vietnam, 68 Fed. Reg. 47,909, 47,910 (Aug. 12, 2003).

38. Notice of Initiation of Antidumping Duty Investigations: Certain Frozen and Canned Warmwater Shrimp from Brazil, Ecuador, India, Thailand, the People’s Republic of China and the Socialist Republic of Vietnam, 69 Fed. Reg. 3876, 3876 (Jan. 27, 2004).

39. *Id.* at 3877 (footnote omitted).

40. *Id.*

41. Preliminary Shrimp Investigation, *supra* note 2, at 3.

42. INT’L TRADE ADMIN., PRELIMINARY DETERMINATION IN ANTIDUMPING DUTY INVESTIGATIONS: CERTAIN FROZEN AND CANNED WARMWATER SHRIMP FROM BRAZIL, ECUADOR, INDIA, AND THAILAND [hereinafter ANTIDUMPING DUTY DETERMINATION I], available at http://www.ita.doc.gov/media/FactSheet/0704/shrimp_072904.html (last visited Apr. 27, 2005); INT’L TRADE ADMIN., PRELIMINARY DETERMINATIONS IN THE ANTIDUMPING DUTY INVESTIGATIONS ON CERTAIN FROZEN AND CANNED WARMWATER SHRIMP FROM THE PEOPLE’S REPUBLIC OF CHINA AND THE SOCIALIST REPUBLIC OF VIETNAM [hereinafter ANTIDUMPING DUTY DETERMINATIONS II], available at http://www.ita.doc.gov/media/FactSheet/0704/shrimp_070604.html (last visited Apr. 27, 2005).

6.08 to 9.35 percent for Ecuador, 3.56 to 27.49 percent for India, and 5.56 to 10.25 percent for Thailand.”⁴³ The tariffs for the non-market-economy countries ranged from 12.11 to 93.13 percent for imports from Vietnam and 0.04 to 112.81 percent for China.⁴⁴ Importers were immediately required to post a bond or pay a cash deposit to cover the tariff.⁴⁵

On August 24, 2004, the DOC announced amendments to its preliminary determinations.⁴⁶ After originally determining that Empresa de Armazenagem Frigorifica, Ltda., a Brazilian company, had not been selling shrimp at less than fair value on the U.S. market, the DOC increased the company’s margin to 12.86 percent because of “certain clerical errors in its calculation.”⁴⁷ The amended preliminary margins for Brazil ranged from 8.41 percent to 67.80 percent.⁴⁸

The International Trade Commission announced its final injury determination in January 2005 finding that “an industry in the United States is materially injured by reason of imports from Brazil, China, Ecuador, India, Thailand, and Vietnam of certain non-canned warmwater shrimp and prawns.”⁴⁹ It is important to note that in its final determination the ITC determined that canned warmwater shrimp is a separate domestic product and concluded “that an industry in the United States is not materially injured by reason of imports from China, Thailand, and Vietnam of canned warmwater shrimp and prawns . . . [and] that imports from Brazil, Ecuador, and India of canned warmwater shrimp and prawns are negligible.”⁵⁰ The DOC’s final tariff determinations were announced on January 26, 2005.⁵¹

The final dumping margins are as follows: 4.97 to 67.80 percent (Brazil); 0.07 to 112.81 percent (China); 1.97 to 4.42 percent (Ecuador); 4.94 to 15.36 percent (India); 5.29 to 6.82 percent (Thailand); and 4.30 to

43. ANTIDUMPING DUTY DETERMINATION I, *supra* note 42.

44. ANTIDUMPING DUTY DETERMINATIONS II, *supra* note 42.

45. *Id.*

46. INT’L TRADE ADMIN., AMENDED PRELIMINARY DETERMINATIONS IN THE ANTI-DUMPING DUTY INVESTIGATIONS ON IMPORTS OF CERTAIN FROZEN AND CANNED WARMWATER SHRIMP FROM BRAZIL, THE PEOPLE’S REPUBLIC OF CHINA, AND THE SOCIALIST REPUBLIC OF VIETNAM, *available at* <http://ia.ita.doc.gov/download/factsheets/factsheet-brazil-prc-vietnam-shrimp-amended-prelim-ad-082504.pdf> (last visited Apr. 27, 2005).

47. *Id.*

48. *Id.*

49. Certain Frozen or Canned Warmwater Shrimp and Prawns from Brazil, China, Ecuador, India, Thailand, and Vietnam, USITC Pub. 3672, Invs. Nos. 731-TA-1063 to 1068 (Final), at 1 (Jan. 2005) [hereinafter Final Shrimp Investigation].

50. *Id.* at 1, 10.

51. INT’L TRADE ADMIN., AMENDED FINAL DETERMINATIONS AND ISSUANCE OF ANTIDUMPING DUTY ORDERS: IMPORTS OF CERTAIN FROZEN WARMWATER SHRIMP FROM BRAZIL, ECUADOR, INDIA, THAILAND, THE PEOPLE’S REPUBLIC OF CHINA, AND THE SOCIALIST REPUBLIC OF VIETNAM, *available at* http://www.ita.doc.gov/media/FactSheet/0105/shrimp_012605.html (last visited Apr. 27, 2005).

25.76 percent (Vietnam).⁵² While antidumping duties will be imposed on imports of frozen shrimp from Brazil, China, Ecuador, and Vietnam, the ITC may reconsider its injury determination with respect to India and Thailand.

The ITC stated in its final report that it is “concerned about the possible impact of the December 26, 2004, tsunami on the shrimping industries of India and Thailand” and announced its intention to collect information to determine whether it should initiate a changed circumstances review.⁵³ An antidumping duty order may be reviewed when the ITC receives information “which shows changed circumstances sufficient to warrant a review of such determination or agreement.”⁵⁴ In conducting a changed circumstances review for an antidumping duty, the ITC must “determine whether revocation of the order or finding is likely to lead to continuation or recurrence of material injury.”⁵⁵

The ITC solicited written comments on February 8, 2005 “concerning whether there are changed circumstances brought about by the effects of the December 26, 2004 tsunami . . . sufficient to warrant institution of review investigations.”⁵⁶ A 9.0 earthquake caused the tsunami which killed thousands of people and devastated coastal areas in Sri Lanka, India, Thailand, and Indonesia.⁵⁷ Many shrimp operations were hit hard by the tsunami.⁵⁸ The manager of one Thai farm reported that the tsunami killed seven workers, destroyed 300 hatchery ponds, and washed away equipment.⁵⁹ The ITC specifically requested information relating to the tsunami’s impact on the ability of India and Thailand to produce and export shrimp to the United States.⁶⁰ The ITC has not yet determined if a review is necessary.⁶¹

The STAC petition is extremely controversial and politically charged. Brazil, China, Ecuador, India, Thailand, and Vietnam dispute the STAC’s

52. *Id.*

53. Final Shrimp Investigation, *supra* note 49, at 1.

54. 19 U.S.C. § 1675(b)(1) (2000).

55. § 1675(b)(2)(A).

56. Request for Comments Concerning the Institution of Section 751(b) Review Investigations; Certain Frozen Warmwater Shrimp from India and Thailand, 70 Fed. Reg. 6728, 6728 (Feb. 8, 2005).

57. Amy Waldman, *Thousands Die as Quake-Spawned Waves Crash Onto Coastlines Across Southern Asia*, N.Y. TIMES, Dec. 27, 2005, at 1.

58. Walailak Keeratipipatpong, *Hatchery Losses May Hurt Entire Shrimp Sector in Thailand*, BANGKOK POST, Jan. 14, 2005, available at <http://www.growfish.com.au/content.asp?contentid=3268>. An estimated 60–70 percent of shrimp farms along the Andaman coast in Thailand suffered damage. *Id.*

59. *Id.*

60. Request for Comments Concerning the Institution of Section 751(b) Review Investigations; Certain Frozen Warmwater Shrimp from India and Thailand, 70 Fed. Reg. at 6728.

61. *See id.* (“A decision as to whether changed circumstances reviews will be instituted as to India and/or Thailand will be made following the collection and analysis of information submitted.”).

claims that they are dumping shrimp onto the U.S. market.⁶² The shrimp exported by these countries is almost exclusively farm-raised, with much lower production costs than harvesting from the wild.⁶³ Brazil claims its shrimp aquaculture operations have “a natural competitive advantage” over the U.S. shrimp industry, citing significantly lower labor costs, cheap land, and a tropical climate that allows three harvests per year.⁶⁴ The Vietnam Association of Seafood Exporters and Producers insists that Vietnamese shrimp are simply cheaper to produce than U.S. shrimp because of Vietnam’s “low labor cost, favorable breeding environment and improved farming techniques.”⁶⁵

Much of the debate revolves around the methods the DOC uses to calculate dumping margins. Calculating the prices for shrimp in the exporting countries is extremely difficult. Since Brazil is the only nation of the six with a domestic market for shrimp, the DOC cannot simply compare prices. China and Vietnam further complicate matters because reliable data on the cost of electricity, labor, chemicals, and other inputs is simply not available for either country.

The voices of the opposition have not gone unnoticed. On May 7, 2004, the members of Congress sent a letter to the DOC reminding investigators to use “fair, rational and objective” procedures and methodologies in determining whether the six nations are dumping shrimp into the U.S. market.⁶⁶ The members of Congress also urged the DOC to delay its preliminary ruling to ensure proper analysis of the data.⁶⁷

The petition is also opposed by the American Seafood Distributors Association, the Global Aquaculture Alliance, and other retail, restaurant, and food service companies, mainly on the basis that tariffs on shrimp imports will increase the cost of shrimp for the U.S. consumer and harm the U.S. economy.⁶⁸ The U.S. domestic shrimp industry can meet only about

62. See *U.S. Upholds Shrimp Dumping Duties on Brazil, Ecuador, India, Thailand*, AGENCE FRANCE-PRESS, Dec. 20, 2004, at <http://business.news.designerz.com/us-upholds-shrimp-dumping-duties-on-brazil-ecuador-india-thailand.html>. “China and Vietnam have protested the decisions. Brazil has vowed to dispute the tariffs at the World Trade Organization, India has threatened a ‘do or die legal battle’ and Thailand has warned that the imposition of high tariffs could devastate thousands of Thai shrimp farmers and workers in food processing plants and raise prices for American consumers.” *Id.*

63. See *Commerce Department Considers Shrimp Tariffs; Shrimp Industry Awaits Ruling*, SHRIMP MEDIA MONITORING (Network of Aquaculture Centres in Asia-Pacific, Bangkok, Thailand), Oct.–Nov. 2004, at 6, available at http://www.enaca.org/Shrimp/Newsletter_Oct_Nov_2004.pdf.

64. Larry Rohter, *Brazil’s Shrimp Caught Up in a Trade War*, N.Y. TIMES, Mar. 10, 2004, at W1.

65. Vo Tong Xuan, *Free Trade Meets Real Life*, SAIGON TIMES MAG. (Vietnam), Jan. 8, 2004.

66. Letter from Members of U.S. Congress, to Donald L. Evans, Sec’y of Commerce, (May 7, 2004), available at http://www.citac.info/shrimp/doc/to_evans_doc_050704.pdf.

67. *Id.*

68. Record at 3, 154–55, *In re Certain Frozen or Canned Warmwater Shrimp and Prawns from Brazil, China, Ecuador, India, Thailand and Vietnam*, U.S. Int’l Trade Comm’n (Jan. 2004) (Invs. Nos.

20 percent of current U.S. demand and cannot significantly increase shrimp production.⁶⁹ The supply of shrimp available from the wild is finite and the expansion of aquaculture operations in the United States is constrained by environmental concerns, the high cost of coastal property, and limited growing seasons.⁷⁰ Currently, aquaculture accounts for only 4.6 percent of U.S. production of shrimp.⁷¹ Shrimp imports are, therefore, absolutely necessary to meet U.S. demand.

The STAC petition is especially troublesome because there is no evidence that the six countries are engaged in unfair trade practices. Under U.S. law, the DOC may impose duties regardless of whether the exporting nation is engaged in unfair trade practices. The Tariff Act of 1930 authorizes the DOC to impose duties to offset dumping by foreign nations.⁷² “Dumping” is defined as “the sale or likely sale of goods at less than fair value.”⁷³ This definition does not distinguish between unfair trade practices like predatory pricing and legitimate business practices like price discrimination and selling below cost to liquidate inventories. Due to the expanding definition of “dumping,” the elimination of traditional tariffs through the WTO, an increase in foreign competition, and other economic and regulatory factors, “[t]he antidumping law . . . [is] now a fairly general source of protection from foreign competition.”⁷⁴

Antidumping duties are permissible under international law. The General Agreement on Tariffs and Trade (GATT) allows importing countries to take action against dumping when a competing domestic industry is materially injured.⁷⁵ A product is dumped on a foreign market when “the export price of the product . . . is less than the comparable price, in the ordinary course of trade, for the like product when destined for consumption in the exporting country.”⁷⁶ In other words, dumping occurs when a country exports a product at a price lower than what is charged for the same product on its domestic market. If the DOC determines that

731-TA-1060 to 1068) (preliminary), available at http://www.usitc.gov/trade_remedy/731_ad_701_cvd/investigations/2004/shrimp/preliminary/PDF/Conference%2001-21-04.pdf.

69. Preliminary Shrimp Investigation, *supra* note 2, at 25, I-6.

70. *Id.* at I-6 to I-7.

71. *Id.*

72. Tariff Act of 1930, 19 U.S.C. §§ 1202–1681b (2000).

73. *Id.* § 1677(34).

74. CONG. BUDGET OFFICE, CONG. OF THE U.S., HOW THE GATT AFFECTS U.S. ANTIDUMPING AND COUNTERVAILING-DUTY POLICY x (Sept. 1994), available at <http://www.cbo.gov/ftpdocs/48xx/doc4848/doc44.pdf>.

75. General Agreement on Tariffs and Trade art. VI.1 (1986), available at http://www.wto.org/english/docs_e/legal_e/gatt47_e.pdf.

76. Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994 pt. I, art. 2.1, 39 I.L.M. 1402 (2002); General Agreement on Tariffs and Trade, *supra* note 75, at art. VI.1.

shrimp imports are being sold at less than fair value and those imports are materially injuring the domestic shrimp industry, the United States can impose antidumping duties in compliance with the WTO regime.

The Continued Dumping and Subsidy Offset Act (CDSOA) of 2000 requires the annual distribution of revenues generated by antidumping duties to the affected domestic producers—producers who were petitioners or interested parties in support of the original antidumping petition.⁷⁷ The CDSOA states that “[d]uties assessed pursuant to a countervailing duty order, an antidumping duty order, or a finding under the Antidumping Act of 1921 shall be distributed on an annual basis . . . to the affected domestic producers for qualifying expenditures.”⁷⁸ Qualifying expenditures are any “expenditure[s] incurred after the issuance of the antidumping duty finding or order,” including expenditures for equipment, personnel training, healthcare and pension benefits paid by the employer, and acquisition of raw materials.⁷⁹ Before the CDSOA, the revenues generated from the imposition of duties were deposited in the U.S. Treasury Department’s general fund.

The distribution of the revenues generated by tariffs to the domestic producers who initiate the antidumping action is not permissible under the GATT. On January 16, 2003, the Appellate Body of the WTO ruled “that the CDSOA is a non-permissible specific action against dumping or a subsidy.”⁸⁰ Article 18.1 of the Antidumping Agreement prohibits WTO member nations from taking specific action against the dumping of exports by another member nation. “[A] measure that may be taken only when the constituent elements of dumping or a subsidy are present, is a ‘specific action’ in response to dumping within the meaning of Article 18.1”⁸¹ Because CDSOA offset payments may be distributed only after a determination of dumping has been made, the CDSOA is a “specific action” in response to dumping and is therefore prohibited by the GATT.⁸²

The United States has yet to repeal or modify the CDSOA to bring it into compliance with the Appellate Body’s ruling. Until the law is modified, the United States is vulnerable to retaliation from other member nations. In January 2004, Canada, the European Union, Japan, and several other nations applied to the WTO for authorization to retaliate against the United States for its failure to modify the CDSOA.⁸³ On August 31, 2004,

77. Continued Dumping and Subsidy Offset Act, 19 U.S.C. § 1675c(a)–(b)(1) (2000).

78. *Id.* § 1675c(a).

79. *Id.* § 1675c(b)(4).

80. WTO Appellate Body Report: United States–Continued Dumping and Subsidy Offset Act of 2000 (Jan. 16, 2003), 42 I.L.M. 427, 452 (2003).

81. *Id.* at 437.

82. *Id.*

83. Guy De Jonquieres & Mariko Sanchanta, *U.S. Faces Sanctions Unless Trade Law is*

a WTO arbitrator panel ruled in favor of the complainants, authorizing them “to fine the United States up to seventy-two percent of money collected from foreign exporters under the [CDSOA].”⁸⁴

The CDSOA is a powerful incentive for domestic industries to initiate antidumping actions. For example, as a result of the successful petition of the crawfish industry, one Louisiana crawfish processor received a \$1.3 million check from the federal government in 2003.⁸⁵ The CDSOA is clearly motivating at least one of the organizations supporting the shrimp antidumping action.

In April 2004, the Louisiana Shrimp Association (LSA) filed a lawsuit against the Southern Shrimp Alliance (SSA), the lead organization in the STAC.⁸⁶ The LSA sought a declaration that shrimp harvesters, as well as processors, were entitled to share in any revenues generated by tariffs on imported shrimp.⁸⁷ The STAC’s petition seeks relief against the imports of frozen and canned warmwater shrimp.⁸⁸ Imports of fresh shrimp are expressly excluded from the investigations.⁸⁹ The LSA appeared concerned that because tariffs are sought on imported processed shrimp, the benefits will go to domestic processors and not to harvesters of fresh shrimp.⁹⁰ The LSA, whose membership consists of commercial shrimpers, seafood dealers, and seafood processors throughout Louisiana, wants to share in the proceeds.⁹¹ Farmers and fishermen can participate in and benefit from antidumping actions. As mentioned above, the domestic industry includes all producers of the “domestic like product.” In investigations involving processed agricultural products, the ITC may consider the growers or producers of the raw agriculture product, defined as “any farm or fishery product,”⁹² as part of the domestic industry if:

Repealed, FINANCIAL TIMES (London), Jan. 9, 2004, at 8.

84. Paul Ames, *WTO Authorizes Sanctions Against U.S. Over Antidumping Rules*, ASSOCIATED PRESS, Aug. 31, 2004. The decisions of the WTO Arbitrator are available at <http://www.wto.org>.

85. Neil King, Jr., *Catch of the Day: Battle Over Shrimp*, WALL ST. J., June 11, 2004, at A4.

86. Complaint for Declaratory Judgment, *La. Shrimp Ass’n v. S. Shrimp Alliance*, No. 04-1227 (E.D. La. Apr. 29, 2004) [hereinafter *Louisiana Shrimp Ass’n Complaint*].

87. Russ Henderson, *Shrimpers Seek Tariff Payment Ruling*, MOBILE REG., May 6, 2004, at 5. The lawsuit was dismissed without prejudice on January 19, 2005 at the request of the LSA which had come to “believe[] the actions of the International Trade Commission and Department of Commerce to have temporarily mooted the Declaratory Relief sought.” Motion to Dismiss and Incorporated Memorandum in Support, *La. Shrimp Ass’n* (No. 04-1227).

88. STAC Petition, *supra* note 3, at 6.

89. *See id.* at 3 (“Fresh, never frozen, warmwater shrimp [and] all coldwater shrimp . . . are all outside the scope of this investigation.”).

90. *Louisiana Shrimp Ass’n Complaint*, *supra* note 86, at para. VIII.

91. *Id.* at para. IX.

92. 19 U.S.C. § 1677(4)(E)(iv) (2000).

- (I) the processed agricultural product is produced from the raw agricultural product through a single continuous line of production; and
- (II) there is a substantial coincidence of economic interest between the producers or growers of the raw agricultural product and the processors of the processed agricultural product based upon relevant economic factors, which may, in the discretion of the Commission, include price, added market value, or other economic interrelationships (regardless of whether such coincidence of economic interest is based upon any legal relationship).⁹³

A processed agricultural product is considered “processed from a raw agricultural product through a single continuous line of production” if:

- (I) the raw agricultural product is substantially or completely devoted to the production of the processed agricultural product; and
- (II) the processed agricultural product is produced substantially or completely from the raw product.⁹⁴

“When determining whether the raw agricultural product is ‘substantially or completely devoted’ to the production of the processed agricultural product, the Commission generally looks to the percentage of the raw product used in the processed product.”⁹⁵ In 1997, the ITC excluded farmers and fishermen harvesting live crawfish from the domestic industry “because the raw agricultural product, live crawfish, is not substantially or completely devoted to the production of the processed agricultural product, crawfish tail meat” as only 13 percent of the live crawfish harvest during the investigation period was processed into tail meat.⁹⁶ Catfish farmers were also excluded in 2003. The ITC found that “approximately one half (by weight) of the live food-sized catfish [the raw agricultural product] . . . was processed into frozen catfish fillets.”⁹⁷ The ITC determined that 50 percent did not fulfill the “substantially or completely devoted to” requirement, because legislative history suggested “that ‘substantially or completely’ should be interpreted to mean ‘all or almost all.’”⁹⁸ The ITC, therefore, “define[d] the domestic industry as

93. *Id.* § 1677(4)(E)(i).

94. *Id.* § 1677(4)(E)(ii).

95. Catfish Investigation, *supra* note 29, at 7.

96. Crawfish Investigation, *supra* note 21, at *14.

97. Catfish Investigation, *supra* note 29, at 8.

98. *Id.* at 8 n.30.

processing operations producing frozen catfish fillets (whether or not breaded or marinated), not including catfish farming operations.”⁹⁹

While the LSA’s concerns are understandable, its lawsuit was unnecessary because unlike crawfish and catfish farmers, shrimp harvesters are not excluded from the shrimp antidumping action. Although fresh shrimp are excluded from the imported product definition, the ITC defined “domestic like product” to include fresh warmwater shrimp. “Domestic like product” is “a product which is like . . . the article subject to investigation.”¹⁰⁰ Fresh warmwater shrimp harvested in the United States “is overwhelmingly sold in a processed form,” which led the ITC to “conclude that fresh warmwater shrimp should be included in the same domestic like product as the processed warmwater shrimp products within the scope definition.”¹⁰¹ Because fresh shrimp are included in the definition of “domestic like product,” “fishermen that harvest warmwater shrimp produce the domestic like product and consequently are part of the domestic industry.”¹⁰²

Despite the ITC’s clear statement of inclusion, the LSA requested that the DOC amend the scope of the antidumping investigations to include fresh shrimp.¹⁰³ The STAC, led by the SSA, opposed any revision to the scope of the investigation and reiterated that they were not interested in trade relief against fresh shrimp imports.¹⁰⁴ In its lawsuit, the LSA claimed the SSA opposed expanding the scope in order “to limit monetary recoveries to a particular segment of the shrimping industry (Processors) while denying shrimp harvesters the right to recover.”¹⁰⁵ The LSA claimed the organization and its members were fraudulently encouraged to participate in and financially support the antidumping action.¹⁰⁶ In its complaint against the SSA, the LSA alleged that in exchange for providing monetary support, “individual shrimp harvesters were assured . . . that they

99. *Id.* at 9.

100. 19 U.S.C. § 1677(10) (2000).

101. Preliminary Shrimp Investigation, *supra* note 2, at 14.

102. *Id.* at 15. The Commission did not need to reach the issue of whether shrimp fishermen should be included as growers or producers of raw agricultural product under section 1677(4)(e), but three Commissioners indicated that they would have included fishermen pursuant to this provision, as “over 90 percent of fresh shrimp are processed into frozen or canned shrimp” and “there is a ‘substantial coincidence’ of economic interest between fishermen and processors.” *Id.* at 15–16 nn.84–85.

103. See Letter from Bradford L. Ward, Dewey Ballentine LLP, to Donald L. Evans, Secretary, Dep’t of Commerce 1–2 (Mar. 12, 2004), available at http://www.freetradeinseafood.org/resource/LSA.v.SSA_cmlnt.pdf (opposing the proposed inclusion of fresh shrimp in the DOC’s investigation). Ward wrote this letter on behalf of the Ad Hoc Shrimp Action Committee. *Id.*

104. *Id.*

105. Louisiana Shrimp Ass’n Complaint, *supra* note 86, at para. VIII.

106. See *id.* at paras. V–IX (claiming LSA and others contributed \$50,000 to SSA to submit claims reflecting LSA losses due to dumping and SSA later sought to exclude harvesters from any recovery).

would be ‘included’ in the Anti-Dumping Petition for the purposes of all monetary awards received thereunder.”¹⁰⁷

In addition to the international problems caused by the CDSOA, the CDSOA encourages domestic industries to focus on short-term gains. There is no question that U.S. shrimp profits declined sharply as imports reduced the price of shrimp. A trade war, however, is not the answer. The revenues from antidumping duties may help a few processors and harvesters remain in business for a few more years, but tariffs fail to address the underlying problem—the inability of the domestic shrimp industry to compete with imported farm-raised shrimp. To survive, U.S. shrimpers need to improve their product’s competitiveness. One method favored by many in the industry, including the American Seafood Distributors Association and the Florida-Georgia South Atlantic Shrimp Partnership, is niche marketing.¹⁰⁸

Niche marketing allows sellers to target a smaller segment of the marketplace and cater to the needs of a particular group of consumers. The U.S. shrimp industry needs to distinguish domestic shrimp from foreign shrimp. Domestic shrimp have the potential to be more popular with consumers who want to “buy American,” eat healthier, and/or protect the environment. In an age when American jobs are headed overseas, many consumers look for opportunities to support domestic industries. In addition, shrimp aquaculture, like other industrial farming operations, uses antibiotics and chemicals to combat disease.¹⁰⁹ Even though there is no scientific evidence that the antibiotics in shrimp and other foods are harmful to humans, the enormous popularity of organic food indicates that consumers are willing to pay more for “natural” products.¹¹⁰

Certain domestic wild shrimp, depending on where and how they are harvested, may also be more popular with the environmental community. For years, the U.S. shrimp industry was the enemy of powerful environmental groups, such as Earth Island Institute and the Center for

107. *Id.* at para. V.

108. See *US Shrimpers Join Seafood Battle*, BBC NEWS, Aug. 6, 2003, (quoting Seafood Distributors’ Association president Wally Stevens, who stated that “[domestic shrimp are] a perfect candidate for niche marketing”), at <http://news.bbc.co.uk/1/hi/business/3128191.stm>; see also *Shrimpers Launch Campaign Promoting Wild Shrimp Over Pond Grown Imports*, SHRIMP MEDIA MONITORING (Network of Aquaculture Centres in Asia-Pacific, Bangkok, Thailand), Apr. 8–May 12, 2003, at 5 (“The Florida–Georgia South Atlantic Shrimp Partnership is working on the new [niche marketing] campaign to persuade people to buy American shrimp over pond-grown imports.”), available at <http://www.enaca.org/Shrimp/Newsletter-8-Apr-11-May-2003.pdf>.

109. Boyd & Clay, *supra* note 13, at 60.

110. See, e.g., JOHN NORWOOD, IOWA STATE UNIV., NATURAL PRODUCTS (2004) (noting that the majority of surveyed consumers were willing to pay a premium for domestically produced organic foods, which they perceived as being safer and fresher than imported foods), available at <http://www.agmrc.org/agmrc/markets/Food/food+natural.htm>.

Marine Conservation, because of the devastating impact of shrimp trawling on sea turtle populations in the United States and throughout the world.¹¹¹ The development of Turtle Excluder Devices (TEDs), however, all but eliminated this threat. The United States required all shrimp vessels to use TEDs and forced other nations to follow suit by banning shrimp imports harvested in a manner that poses a threat to turtles.¹¹² Through TEDs and other bycatch reduction devices, the U.S. shrimp industry has greatly reduced its impact on the natural environment.¹¹³ The same cannot be said for the shrimp industries of foreign countries.

II. ENVIRONMENTAL IMPACTS OF SHRIMP FARMING

Aquaculture is often touted as the solution to some of the world's most pressing problems, including overfishing, hunger, and poverty.¹¹⁴ Aquaculture, it is argued, alleviates pressure on wild fish stocks and provides much-needed food to coastal communities.¹¹⁵ Aid agencies, international financial institutions, and governments have promoted aquaculture for years.¹¹⁶ As a result, most industrial shrimp farming occurs in developing nations.¹¹⁷

For most, shrimp aquaculture has been an unqualified economic success. Farmed shrimp currently account for approximately “one third of global consumption of shrimp, having a yearly retail value of []\$50–60 billion.”¹¹⁸ The short-term gains reported by many shrimp farming operations and their governments have been amazing. In 2003, Brazil's shrimp farms produced 40,000 tons of shrimp, with exports reaching \$258 million.¹¹⁹ Vietnam's exports in 2003 were almost \$1.1 billion.¹²⁰

111. See S.C. Dep't of Nat. Res., *Loggerhead Sea Turtle* (stating that a decline in nesting female turtles “is attributed primarily to incidental catch in trawl nets”), at <http://www.csc.noaa.gov/acebasin/specgal/logger.htm> (last updated Feb. 12, 2001); see also Brian West, *Turtle Turmoil in India*, *EARTH ISLAND J.*, Spring 1995, at 8 (discussing commercial trawling and the thousands of annual deaths of sea turtles in India).

112. Humane Soc'y of the U.S., *Turtle Excluder Device (TED)*, at http://www.hsus.org/wildlife/issues_facing_wildlife/turtle_excluder_device_ted.html (last visited Apr. 27, 2005).

113. See *Report of the Expert Consultation on Interactions Between Sea Turtles & Fisheries Within an Ecosystem Context*, U.N. Food & Agric. Org., at 5, FIRM/R738 (2004) (“Experiments in combining use of TEDs and other bycatch reduction devices (BRDs) were conducted and are demonstrated to be very successful.”).

114. ENVTL. JUSTICE FOUND., *FARMING THE SEA, COSTING THE EARTH: WHY WE MUST GREEN THE BLUE REVOLUTION* 2, 5 (2004) [hereinafter *FARMING THE SEA*].

115. *Id.*

116. *Id.* at 2.

117. *Id.* at 2, 5.

118. *Id.* at 2.

119. Mario Osava, *Trade-Brazil: Shrimp—New Source of Tension with U.S.*, INTER PRESS SERV.

Ecuador, India, Thailand, and several other countries have experienced similar successes.¹²¹ Sometimes, however, the environment and local communities paid dearly for this success.

The environmental consequences of shrimp aquaculture are well-known. Shrimp farming increases rather than decreases pressure on wild fish stocks because of the industry's heavy reliance on fish meal and wild broodstock.¹²² The wastes generated by shrimp farms can pollute coastal waters and threaten the health of coastal communities if inadequately managed.¹²³ Poor water exchange can lead to saline intrusion and the destruction of nearby agricultural land and freshwater wetlands.¹²⁴ Mangrove swamps, coastal wetlands, and other marine habitats are destroyed as farmers enclose coastal areas and clear vegetation to create ponds.¹²⁵

The destruction of mangroves is by far the most serious consequence of intensive shrimp farming. Mangroves are one of the planet's most threatened habitats.¹²⁶ A mangrove forest or swamp is "[a] community of salt-tolerant trees, with associated shrubs or vines and other organisms, that grows in a zone roughly coinciding with the intertidal zone along protected tropical and subtropical coasts."¹²⁷ A 2003 assessment by the U.N. Food and Agriculture Organization indicated that "mangrove area worldwide had fallen below 15 million hectares by the end of 2000, down from an estimated 19.8 million hectares in 1980."¹²⁸ A number of human activities contribute to mangrove loss, including timber harvesting, pollution, irrigation, and chemical defoliation, but many claim shrimp farming is the leading culprit.¹²⁹ Shrimp farming has been estimated to be responsible for 20–50 percent of all current mangrove deforestation.¹³⁰

NEWS AGENCY, Jan. 19, 2004, at <http://www.ipsnews.net/interna.asp?idnews=21986>.

120. Xuan, *supra* note 65.

121. See Andrzej Zwaniacki, *U.S. Duties Imposed on Frozen Shrimp from Six Countries* U.S. DEPT. OF STATE INT'L INFO. PROGRAMS, Jan. 6, 2005 (stating that shrimp imports from Brazil, Ecuador, India, Thailand, Vietnam, and China amounted to \$2.67 billion in 2003), at <http://usinfo.state.gov/eap/Archive/2005/Jan/06-969047.html>.

122. See FARMING THE SEA, *supra* note 114, at 44.

123. See Boyd & Clay, *supra* note 13, at 60.

124. Tran Thanh Be et al., *Environmental Costs of Shrimp Culture in the Rice-Growing Regions of the Mekong Delta*, 3 AQUACULTURE ECON. & MGMT. 31, 33 (1999).

125. See FARMING THE SEA, *supra* note 114, at 7.

126. *Id.* at 11.

127. AMERICAN OCEANS CAMPAIGN, ESTUARIES ON THE EDGE: THE VITAL LINK BETWEEN LAND AND SEA 296 (1996).

128. Press Release, U.N. Food & Agric. Org., FAO Releases New Global Estimates of Mangroves (Mar. 10, 2003), at <http://www.fao.org/english/newsroom/news/2003/15020-en.html>.

129. See Derek Hall, *The International Political Ecology of Industrial Shrimp Aquaculture & Industrial Plantation Forestry in Southeast Asia*, 34 J. SE. ASIAN STUD. 251, 259 (2003) ("Activists, scholars and governments have all claimed that shrimp farming is the primary cause of mangrove

Mangroves are unique ecosystems dependent on both marine and terrestrial environments. Nutrients and sediment delivered by freshwater runoff nourish mangrove swamps and stabilize root systems, while tidal waters flush wastes and transport the seeds of mangrove trees.¹³¹ Mangroves “provide a number of vital ecological services, including preventing coastal erosion and storm damage, filtering upstream pollutants . . . and cycling and storing nutrients.”¹³² Hundreds of species of reptiles, fish, shellfish, crustaceans, birds, and mammals spend all or a significant portion of their lives within mangrove ecosystems.¹³³ Humans harvest mangrove resources for food, shelter, and profit.¹³⁴

The destruction of mangroves for shrimp farming threatens global biodiversity and local livelihoods. Because wild stocks of fish depend on mangroves for food, shelter, and breeding habitat, fish populations decline as mangroves are destroyed for shrimp farms.¹³⁵ For example, when mangrove cover in Bangladesh’s Chokoria Sundarban forest fell from 7,500 hectares in 1976 to 411 hectares in 1999, local fishermen reported an 80 percent drop in catches.¹³⁶ By 1997, mangrove cover in Burma had decreased to 271,000 hectares, down from 652,000 hectares in 1983, resulting in an annual decline in coastal fisheries of 190,000 tons.¹³⁷ Similar losses are occurring in countries throughout Southeast Asia and Central America.¹³⁸

Some governments have taken legislative and judicial action to prevent further environmental destruction by the shrimp farming industry, but the impact of shrimp farming is a global concern requiring a global solution. The United States, Japan, and the European Union, the main importers of shrimp, provide the economic incentive that drives the destructive aquaculture practices in developing nations.¹³⁹ Brazil, China, Ecuador,

destruction in many Asian countries, while industry sources have rejected these claims.”).

130. WORLD BANK ET AL., SHRIMP FARMING & THE ENV’T: CAN SHRIMP FARMING BE UNDERTAKEN SUSTAINABLY?, available at <http://www.enaca.org/shrimp/publications/WBfinal.pdf> (last visited Apr. 28, 2005).

131. See U.S. Env’t. Prot. Agency, Mangrove Swamps, at <http://www.epa.gov/owow/wetlands/types/mangrove.html> (last updated Mar. 23, 2005); Fla. Museum of Natural History, South Florida Mangroves: Habitat Requirements, at <http://www.flmnh.ufl.edu/fish/southflorida/mangrove/habitat.html> (last visited March 20, 2005).

132. Hall, *supra* note 129, at 259.

133. FARMING THE SEA, *supra* note 114, at 65–66.

134. Hall, *supra* note 129, at 259; Boyd & Clay, *supra* note 13, at 59.

135. FARMING THE SEA, *supra* note 114, at 46–47.

136. *Id.* at 15.

137. *Id.* at 20.

138. *Id.* at 22–23.

139. See A. Lem and Z.H. Shehadeh, *International Trade in Aquaculture Products*, *FAO Aquaculture Newsletter* (U.N. Food & Agric. Org., Rome, Italy), Dec. 1997, at 3, (“[D]emand for shrimp and prawns is expected to increase in coming years. . . . This trend is already reducing the

India, Thailand, and Vietnam are producing more shrimp because U.S. consumers are demanding more shrimp. Rather than inciting a trade war, the U.S. shrimp industry should focus its efforts on encouraging consumer responsibility.

Environmental destruction is no longer a local problem. Habitat loss and species extinction affect the productivity of ecosystems thousands of miles away. Industries, especially in developing nations where the policies of aid agencies and international financial institutions favor development over the needs of local communities and the environment, often fail to adequately incorporate the environmental costs of production. Importing nations should not use trade measures solely to penalize exporting nations for increased efficiency, but trade restrictions can, and arguably should, be used to force exporting nations to internalize environmental costs. Rather than penalize Brazil, China, Ecuador, India, Thailand, and Vietnam with antidumping duties, the United States should consider forcing them to internalize the environmental costs of shrimp production. This could be accomplished through a trade embargo accompanied by a certification program for the importation of environmentally friendly shrimp. The price of farmed shrimp imports would then rise and the U.S. domestic shrimp industry would become more competitive.

III. WOULD A U.S. EMBARGO OF FARMED SHRIMP SUCCEED?

A U.S. trade embargo on shrimp imports from countries with regulatory programs inadequate to protect mangroves, if designed and implemented properly, could comply with the WTO regime. The Preamble to the Agreement Establishing the WTO calls on member nations to conduct their relations in the field of trade and economics

with a view to raising standards of living . . . while allowing 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 and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development[.]¹⁴⁰

availability of shrimp to traditional importers and will eventually put upward pressure on prices if supplies do not expand.”), *available at* http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/005/w7611e/w7611e00.htm.

140. Marrakesh Agreement Establishing the World Trade Organization, Preamble, Apr. 15, 1994, 33 I.L.M. 15 (1994).

The WTO views its role with regard to environmental protection as “continu[ing] to liberalize trade, as well as to ensure that environmental policies do not act as obstacles to trade, and that trade rules do not stand in the way of adequate domestic environmental protection.”¹⁴¹ Only recently, and somewhat reluctantly, has the WTO become comfortable with this role.

In the early 1990’s, as a result of the infamous tuna-dolphin dispute, the WTO was the environmental community’s public enemy number one. In 1988, the U.S. media “discovered” the enormous toll the Eastern Tropical Pacific (ETP) tuna fishery took on dolphins when Samuel LaBudde, a California biologist, released graphic footage of dolphins dying in tuna nets, which he secretly filmed after infiltrating a Panamanian vessel by signing on as a cook.¹⁴² At the time, the ETP tuna fishery’s annual dolphin mortality was over 133,000.¹⁴³ Foreign vessels caused most of the deaths, as the U.S. fleet was required to reduce dolphin mortality in the ETP by the Marine Mammal Protection Act (MMPA) of 1972.¹⁴⁴ The public was outraged and U.S. environmental groups, led by the Earth Island Institute, organized a consumer boycott of tuna.¹⁴⁵ In 1991, the Heinz Company, marketer of StarKist brand tuna, announced that it would purchase and market only tuna that was “dolphin safe.”¹⁴⁶ Beginning in 1991, the MMPA required the DOC to “ban the importation of commercial fish or products from fish which have been caught with commercial fishing technology which results in the incidental kill or incidental serious injury of ocean mammals in excess of United States standards.”¹⁴⁷

In January 1991, its fishermen shut out of U.S. markets, Mexico requested the formation of a GATT dispute resolution panel to examine the U.S. restrictions on the import of tuna.¹⁴⁸ Mexico argued that the embargo was inconsistent with the GATT, specifically the general prohibition of quantitative restrictions.¹⁴⁹ Quantitative restrictions on imports are

141. WORLD TRADE ORG., TRADE AND ENVIRONMENT AT THE WTO: BACKGROUND DOCUMENT 6 (Apr. 2004) [hereinafter WTO BACKGROUND DOCUMENT], available at http://www.wto.org/english/tratop_e/envir_e/envir_backgrnd_e/trade_env_e.pdf.

142. Scott Armstrong, *Drive to Stop Killing by Tuna Fleets is Given New Impetus*, CHRISTIAN SCI. MONITOR, Apr. 14, 1998, at 3.

143. Nat’l Marine Fisheries Serv., Background on Tuna/Dolphin Issue (citing 1986 mortality rate), at http://www.nmfs.noaa.gov/prot_res/readingrm/tunadolphin/background.pdf (last visited Apr. 29, 2005).

144. 16 U.S.C. §§ 1361–1421h (2000).

145. DICK RUSSELL, DEFENDERS OF WILDLIFE, TUNA-DOLPHIN WARS (Summer 2002), available at <http://www.defenders.org/defendersmag/issues/summer02/tunadolphin.html>.

146. *Id.*

147. GATT Dispute Settlement Panel Report on U.S. Restrictions on Imports of Tuna, 30 I.L.M. 1594, 1599 (1991) [hereinafter U.S.-Tuna] (quoting Marine Mammal Protection Act of 1972, Pub. L. No. 92-522, § 101(a)(2), 86 Stat. 1027, 1030).

148. *Id.* at 1598.

149. *Id.* at 1601.

prohibited by GATT Article XI:1 which states: “No prohibitions or restrictions . . . 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”¹⁵⁰ The Panel determined “that the direct import prohibition on certain yellowfin tuna and certain yellowfin tuna products from Mexico and the provisions of the MMPA under which it is imposed were inconsistent with Article XI:1.”¹⁵¹

The United States argued that even if the embargo was inconsistent with Article XI, the measures were covered by the Article XX(b) and (g) exceptions because the “embargo was necessary to protect the life and health of dolphins”¹⁵² and “dolphins were an exhaustible natural resource.”¹⁵³ Article XX of the GATT allows countries to impose certain trade restrictions which would normally be prohibited by the GATT, such as tariffs and embargoes. Article XX states:

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 the Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:

. . . .

(b) necessary to protect human, animal or plant life or health; [or]

. . . .

(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption[.]¹⁵⁴

. . . .

The Panel dismissed the U.S. arguments. First, the Panel rejected the extraterritorial application of Article XX, finding that measures taken to protect life and health and natural resources outside the jurisdiction of the importing nation were not covered.¹⁵⁵ The Panel went on, however, to find

150. General Agreement on Tariffs and Trade, *supra* note 75, at art. XI, *quoted in* WTO Panel Report: United States—Import Prohibition of Certain Shrimp and Shrimp Products, 37 I.L.M. 832, 840 (1998).

151. U.S.-Tuna, *supra* note 147, at 1618.

152. *Id.* at 1606.

153. *Id.* at 1607.

154. General Agreement on Tariffs and Trade, *supra* note 75, at art. XX.

155. *See* U.S.-Tuna, *supra* note 147, at 1619–20.

that even if Article XX permitted extrajurisdictional protection, the U.S. embargo did not meet the other requirements of Article XX.¹⁵⁶ The United States failed to demonstrate “that it had exhausted all options reasonably available to it to pursue its dolphin protection objectives through measures consistent with the General Agreement,” namely, negotiation of international agreements.¹⁵⁷ Furthermore, the Panel concluded that the U.S. measures were not “necessary within the meaning of Article XX(b)” because the United States linked the maximum incidental dolphin taking rate for importing nations with the taking rate actually recorded by the United States.¹⁵⁸ This linkage made it impossible for foreign nations to determine whether their fleets were in compliance with U.S. standards until after the fishing season, when the U.S. reported the number of dolphins killed by its fleets.¹⁵⁹ The Panel declared “that a limitation on trade based on such unpredictable conditions could not be regarded as necessary to protect the health or life of dolphins.”¹⁶⁰ The Panel rejected the U.S. argument that the measures were justified under Article XX(g) for similar reasons.¹⁶¹

Due to procedural hurdles under the old GATT system, the Panel’s opinion was never formally adopted.¹⁶² The fallout from the decision, however, was severe. The WTO and its trade regime were viewed by many international environmental non-governmental organizations (NGOs) as a barrier to environmental protection.¹⁶³ In 1991, the WTO reactivated its Group on Environmental Measures and International Trade, originally established in 1971, to facilitate a structured debate on environmental issues.¹⁶⁴ In 1994, the WTO went one step further, establishing a permanent Committee on Trade and the Environment (CTE), which was charged with a broad mandate, including “identifying the relationship between trade measures and environmental measures.”¹⁶⁵

As the WTO was evolving to reconcile environmental issues with the trade regime in the wake of the tuna/dolphin dispute, a similar trade dispute

156. *Id.* at 1620.

157. *Id.*

158. *Id.*

159. *Id.*

160. *Id.*

161. *See id.* at 1620–21.

162. World Trade Org., Mexico Etc. Versus US: ‘Tuna-Dolphin’, at http://www.wto.org/english/tratop_e/envir_e/edis04_e.htm (last visited Apr. 29, 2005).

163. *See Protests Overshadow WTO Talks*, BBC NEWS, Nov. 30, 1999, at <http://news.bbc.co.uk/1/hi/world/americas/542622.stm> (describing the accusations of environmental groups, trade unions, and least-developed countries concerning the perceived worsening of environmental and development problems during the 1999 protests of the WTO).

164. WTO BACKGROUND DOCUMENT, *supra* note 141, at 2, 4.

165. *Id.* at 5.

arose regarding sea turtle mortality in shrimp trawl nets. Thousands of sea turtles have died as a result of entanglement in shrimp nets.¹⁶⁶ Earth Island Institute and other conservation groups have organized consumer boycotts and marketing campaigns, although none have achieved the success of the “dolphin-safe” campaign. In 1987, however, the United States required its shrimping vessels to install TEDs on their trawl nets.¹⁶⁷ TEDs allow sea turtles to escape the nets and drastically reduce turtle mortality. In 1989, Congress directed the DOC to restrict the importation of shrimp harvested in a manner that endangered sea turtles.¹⁶⁸ In early 1991, an import ban on shrimp harvested with commercial fishing technology, which may adversely affect sea turtles, went into effect under the authority of the Endangered Species Act.¹⁶⁹ The import restriction, however, did not apply to harvesting nations that were certified.¹⁷⁰ Certification could be obtained if (i) sea turtles did not occur in the waters of the harvesting nation; (ii) shrimp were harvested in a manner that did not pose a threat to sea turtles (by artisanal means, for example); or (iii) the harvesting nation’s commercial shrimp trawling operations took place exclusively in waters where sea turtles do not occur.¹⁷¹ A nation could also receive certification by providing evidence of the adoption of a comparable regulatory program and an incidental taking rate comparable to that of the U.S. fleet.¹⁷²

India, Pakistan, Malaysia, and Thailand challenged the U.S. embargo on shrimp products from countries failing to meet U.S. certification requirements.¹⁷³ The nations argued that the program was inconsistent with the GATT Article XX for a number of reasons, including the fact that it was a trade restriction based on a production method, not a product, and that it was an extraterritorial application of U.S. law.¹⁷⁴ In May 1998, the Panel issued a ruling concluding “that the import ban on shrimp and shrimp products as applied by the United States on the basis of Section 609 of Public Law 101-162 is not consistent with Article XI:1 of GATT 1994, and

166. See Caribbean Conservation Corp. & Sea Turtle Survival League, *Sea Turtle Threats & Conservation* (“At one time, as many as 55,000 sea turtles were killed each year in shrimp nets in the southeastern United States alone.”), at <http://www.ccturtle.org/threats.htm> (last visited Apr. 29, 2005).

167. See *Sea Turtle Conservation; Shrimp Trawling Requirements*, 52 Fed. Reg. 24,244, 24,244 (June 29, 1987) (to be codified at 50 C.F.R. pts. 217, 222, and 227).

168. Pub. L. No. 101-162, § 609, 103 Stat. 1037 (1989) (codified at 16 U.S.C. § 1537 note (2000) (*Conservation of Sea Turtles; Importation of Shrimp*)).

169. Endangered Species Act, 16 U.S.C. §§ 1531–1544 (2000); WTO Appellate Body Report: *United States—Import Prohibition of Certain Shrimp and Shrimp Products* (Oct. 12, 1998), 38 I.L.M. 118, 123–24 [hereinafter *Shrimp I*].

170. *Shrimp I*, *supra* note 169, at 124.

171. *Id.*

172. *Id.*

173. *Id.* at 123.

174. *Id.* at 132–33.

cannot be justified under Article XX of GATT 1994.”¹⁷⁵ The United States appealed.¹⁷⁶ The Appellate Body reversed the Panel’s ruling.¹⁷⁷

In *United States—Import Prohibition of Certain Shrimp and Shrimp Products (Shrimp I)*, the WTO recognized for the first time the right of member nations to impose trade restrictions to conserve natural resources and protect the environment so long as the measures taken comply with Article XX. According to the Appellate Body, the Panel had erred by “first ‘determin[ing] whether the measure at issue satisfies the conditions contained in the chapeau.’”¹⁷⁸ The *chapeau* is the introductory paragraph of Article XX.¹⁷⁹ The appropriate approach is a two-tiered analysis. First, does the measure qualify for provisional justification under one of the Article XX exceptions?¹⁸⁰ Then, if the measure qualifies, does the application of the measure satisfy the conditions of the chapeau?¹⁸¹

The Appellate Body ruled that the U.S. ban on shrimp imports fell within Article XX(g) because the import restriction was related to the conservation of an exhaustible natural resource, sea turtles, and the United States had similar restrictions on the domestic harvesting of shrimp.¹⁸² This ruling marks an extremely important development within the WTO. The *Shrimp I* ruling marked the first time the Appellate Body did not categorically disallow trade restrictions based on production methods. Under Article XX(g), member nations can now embargo products based on the manner in which they are produced as long as the trade restrictions are related to the conservation of an exhaustible natural resource and accompanied by similar restrictions on domestic production.

Although the core legislation was consistent with the GATT, the Appellate Body ruled that the embargo itself was not.¹⁸³ A trade measure which qualifies under one of the Article XX exceptions must also comply with the chapeau. For a trade measure to be consistent with the chapeau, the importing nation must engage in bilateral or multilateral negotiations prior to imposing restrictions; consider the differing conditions in other nations; treat all exporting nations the same; and implement the measure in a flexible, transparent, and fair manner.¹⁸⁴

175. *Id.* at 123, 125; *see also supra* note 168.

176. *Shrimp I*, *supra* note 169, at 126.

177. *Id.* at 175.

178. *Id.* at 151 (alteration in original).

179. JOHN H. JACKSON ET AL., INTERNATIONAL ECONOMIC RELATIONS 532 (4th ed. 2002).

180. *Shrimp I*, *supra* note 169, at 152.

181. *Id.*

182. *Id.* at 157–60.

183. *Id.* at 175.

184. *Id.* at 167–74.

The Appellate Body found that the United States was applying the law in a manner that constituted arbitrary and unjustifiable discrimination and, therefore, violated the chapeau of Article XX. The Appellate Body found that “[t]he actual application of the measure . . . requires other WTO Members to adopt a regulatory program that is not merely comparable, but rather essentially the same, as that applied to the United States shrimp trawl vessels.”¹⁸⁵ This application was held to be unjustifiable discrimination. The Appellate Body went on to state that “it is not acceptable . . . for one WTO Member to use an economic embargo to require other Members to adopt essentially the same comprehensive regulatory program . . . without taking into consideration different conditions which may occur in the territories of those other Members.”¹⁸⁶ Furthermore, the Appellate Body found the United States had made no serious effort to negotiate with other nations to reach agreement regarding the conservation of sea turtles.¹⁸⁷

The Appellate Body also determined that the U.S. certification program was implemented in an arbitrary manner because the regulations banned imports of shrimp caught in non-certified countries, even if the vessels used TEDs, and some member nations received longer grace periods than others.¹⁸⁸ The certification program also lacked transparency and procedural fairness.¹⁸⁹ Most notably,

there is no formal opportunity for an applicant country to be heard, or to respond to any arguments that may be made against it, in the course of the certification process before a decision to grant or to deny certification is made. Moreover, no formal written, reasoned decision, whether of acceptance or rejection, is rendered on [certification] applications¹⁹⁰

Following the Appellate Body’s ruling, the United States renewed its negotiation efforts and amended the certification program to increase transparency and fairness. In 2001, the Appellate Body affirmed the findings of a Dispute Settlement Panel that found the United States had effectively implemented the 1998 decision of the Appellate Body.¹⁹¹ After

185. *Id.* at 167 (emphasis omitted).

186. *Id.* (emphasis omitted).

187. *Id.* at 171.

188. *Id.* at 170–74.

189. *Id.* at 173–74.

190. *Id.* at 173.

191. See WTO Appellate Body Report: *U.S.—Import Prohibition of Certain Shrimp and Shrimp Products (Recourse to Article 21.5 of the DSU by Malaysia)* (Oct. 22, 2001), 41 I.L.M. 149, 177 (upholding finding that United States brought its import prohibition into conformity with the WTO Agreement as per the Dispute Settlement Body’s 1998 recommendation).

years of negotiation and litigation, the U.S. shrimp certification program finally came into compliance with the WTO regime.

The Shrimp I ruling provides member nations with a framework for imposing trade restrictions for environmental reasons. The analysis is two-fold. First, a trade measure must qualify for one of the Article XX exceptions.¹⁹² If the measure qualifies, the implementation must not constitute arbitrary or unjustifiable discrimination or a disguised restriction on trade.¹⁹³

A trade embargo on farmed shrimp would qualify under Article XX(g). Shrimp farming poses a significant threat to mangrove forests, migratory bird populations, and fish stocks, all of which are exhaustible natural resources. The restriction of imports from nations with inadequate regulatory programs to protect mangroves from industrial shrimp farming is related to the conservation of those natural resources.

Prior to embargoing farmed shrimp, the United States must make a serious effort to negotiate international or regional agreements to address the destruction of mangroves. Although a multilateral environmental agreement does not exist on mangrove destruction, international negotiations are underway. The international community already recognizes aquaculture as an issue of global concern. The U.N. Food and Agriculture Organization encourages states to “promote responsible development and management of aquaculture”¹⁹⁴ and to “promote responsible aquaculture practices in support of rural communities, producer organizations and fish farmers.”¹⁹⁵ Industrial aquaculture operations have serious impacts on biodiversity and wetlands.¹⁹⁶ The loss of wetlands contributes to the loss of biodiversity, which threatens food and fuel supplies and destabilizes ecosystems. The contracting parties to two major multilateral environmental agreements, the U.N. Convention on Biological Diversity (CBD)¹⁹⁷ and the Ramsar Convention on Wetlands, have already adopted resolutions or program elements to address aquaculture.

192. *Shrimp I*, *supra* note 169, at 152.

193. *Id.*

194. U.N. FOOD & AGRIC. ORG., CODE OF CONDUCT FOR RESPONSIBLE FISHERIES art. 9.1.2 (1995), available at http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/005/v9878e/v9878e00.htm.

195. *Id.* art. 9.4.1.

196. See Alfredo Quarto, *The Rise and Fall of the Blue Revolution* (“Unsolved pollution problems still plague the industry, despoiling once fecund waters of nearby estuaries and inshore coastal bays. Formerly rich fishing grounds are being impacted, and vital fish breeding and nursery habitat are being lost to the encroaching shrimp farms.”), available at <http://www.earthisland.org/map/blrv1.htm> (last visited Apr. 29, 2005).

197. Convention on Biological Diversity, United Nations Env’t Programme (1992), available at <http://www.biodiv.org/convention/default.shtml>.

The CBD, a product of the 1992 Earth Summit, encourages members to conserve biodiversity worldwide. The United States has signed, but not ratified, the CBD.¹⁹⁸ However, a number of countries heavily involved in shrimp farming are parties to the convention, including Brazil, Ecuador, India, and Thailand.¹⁹⁹ As signatories they are obligated to protect biological diversity on the local, national, regional, and global scales.²⁰⁰ The unregulated expansion of shrimp farms in signatory nations destroys biological diversity and threatens ecosystems throughout the world, contrary to the CBD.

The CBD recognizes that aquaculture poses a threat to biological diversity. Mariculture, defined as aquaculture in marine or brackish water, is a program element of the Jakarta Mandate on Marine and Coastal Biodiversity, adopted in 1995.²⁰¹ Parties are encouraged “[t]o assess the consequences of mariculture for marine and coastal biological diversity and promote techniques which minimize adverse impact.”²⁰² A certification program for farmed shrimp would promote techniques that minimize adverse impact on global biodiversity because only nations with low-impact shrimp farms could import their products into the United States.

The loss of wetlands is addressed by the Ramsar Convention on Wetlands, signed in 1971.²⁰³ The Ramsar Convention provides a framework for international cooperation for the conservation and “wise use” of wetlands and their resources.²⁰⁴ Contracting parties, including the United States, agree to promote the wise use of all wetlands and to maintain the “ecological character” of wetlands of international importance, also

198. Jeffrey Burnam, Deputy Assistant Secretary of State for Environment, Statement to the Ministerial Roundtable, Sixth Conference of the Parties to the Convention on Biological Diversity (Apr. 17, 2002), at <http://www.state.gov/g/oes/rls/rm/2002/9577.htm>.

199. United Nation Env't Programme, Parties to the Convention on Biological Diversity, at <http://www.biodiv.org/world/parties.asp> (last visited Apr. 29, 2005).

200. Convention on Biological Diversity, *supra* note 197, at pmb1.

201. Report of the Second Meeting of the COP to the Convention on Biological Diversity Decision II/10, Annex I, U.N. Doc. UNEP/CBD/COP/2/19 (1995), available at <http://www.biodiv.org/doc/decisions/COP-02-dec-en.pdf> (last visited Apr. 29, 2005). This document is known as the Jakarta Mandate.

202. Convention on Biological Diversity, Fourth Ordinary Meeting of the Conference of Parties to the Convention on Biological Diversity, Decision IV/5: Conservation and sustainable use of marine and coastal biological diversity, including a programme of work (1998), available at <http://www.biodiv.org/decisions/default.aspx?m=COP-04&id=7128&lg=0>.

203. Final Act of the International Conference on the Conservation of Wetlands and Waterfowl, Jan. 30–Feb. 3, 1971, 11 I.L.M. 963 (1972).

204. *Id.* at 970–71. Articles 2 and 3 of the Ramsar Convention detail the “listing” process under which “[e]ach Contracting Party shall designate suitable wetlands within its territory for inclusion in a List of Wetlands of International Importance.” *Id.* at 970. When considering which wetlands to list, “[e]ach Contracting Party shall consider its international responsibilities for the conservation, management and wise use of migratory stocks of waterfowl.” *Id.* at 971.

known as “Ramsar sites.”²⁰⁵ Ramsar sites in Brazil, China, Ecuador, Guatemala, Honduras, India, Mexico, Sri Lanka, Venezuela, and Vietnam are threatened by pollution from existing shrimp farms or habitat destruction from expanding operations.²⁰⁶

At the Seventh Meeting of the Contracting Parties in May 1999, a resolution on intertidal wetlands urged

all Contracting Parties to suspend the promotion, creation of new facilities, and expansion of unsustainable aquaculture activities harmful to coastal wetlands until such time as assessments of the environmental and social impact of such activities, together with appropriate studies, identify measures aimed at establishing a sustainable system of aquaculture that is in harmony both with the environment and with local communities.²⁰⁷

An embargo on farmed shrimp cultivated in an unsustainable manner, like the Ramsar Convention, will promote the suspension of destructive aquaculture operations.

Although the international community recognizes that aquaculture is a threat to the global environment, it is not clear whether the WTO would sanction an embargo on farmed shrimp because of mangrove destruction. Importing nations would likely argue that such an embargo is an impermissible extraterritorial application of U.S. law and policy. Technically, the shrimp embargo for the conservation of sea turtles involved the extraterritorial application of U.S. law. The United States used the embargo to achieve international compliance with its national conservation program. However, in the *Shrimp I* ruling, the Appellate Body found that “there is a sufficient nexus between the migratory and endangered marine populations involved and the United States for the purposes of Article XX(g).”²⁰⁸ Sea turtles are migratory, passing through the waters of many nations. The species of sea turtles found in the United States migrate to the waters of other nations and vice versa. To effectively protect the species of sea turtles found in the United States, conservation programs need to be global in scope.

To successfully embargo shrimp products under Article XX(g), the United States would have to connect the loss of mangroves in other

205. Ramsar Convention on Wetlands, Introductory Ramsar Convention Flyer/Brochure/Leaflet (2d ed. 2004), at http://www.ramsar.org/key_brochure_2004_e.htm.

206. FARMING THE SEA, *supra* note 114, at 22–23.

207. Seventh Meeting of the Conference of the Contracting Parties to the [Ramsar] Convention on Wetlands, Res. VII.21: Enhancing the Conservation and Wise Use of Intertidal Wetlands (1999), available at http://www.ramsar.org/key_res_vii_index.htm (updated Dec. 17, 2004).

208. *Shrimp I*, *supra* note 169, at 157.

countries to itself. The nexus between the United States and mangroves in Southeast Asia, Central America, and other regions is not obvious. Although there are mangroves in U.S. waters, those mangroves do not migrate into the territories of other nations. Species associated with mangrove forests, however, do migrate and are impacted by the loss of mangrove habitat in other regions. Many species of migratory fish and birds depend on mangroves for food, shelter, and breeding habitat.²⁰⁹ The loss of mangroves in other countries can have an adverse effect on U.S. fish stocks and conservation programs. To ensure the survival of species which migrate to and through U.S. territory, the United States must protect the habitats upon which those species rely.

Finally, to qualify under Article XX(g), the importing nation must also have similar restrictions on domestic production.²¹⁰ U.S. laws and regulations already significantly restrict aquaculture production.²¹¹ Aquaculture operations in U.S. waters must secure a number of federal permits, all of which require the responsible federal agencies to consider environmental impacts.²¹² For example, the Clean Water Act requires individuals to obtain permits for activities involving the dredge or fill of wetlands²¹³ and the discharge of pollutants.²¹⁴

The United States could feasibly embargo farmed shrimp for environmental reasons under Article XX(g). The United States recognizes the importance of domestic wetlands, and a strong regulatory program is already in place to combat wetland loss in the United States. Industrial shrimp farms threaten coastal ecosystems worldwide and imperil the survival of hundreds of species which live in the United States at least part of the year. A trade embargo on shrimp cultivated in an environmentally destructive manner abroad is related to the conservation of mangroves and associated species in the United States. Furthermore, the destruction of mangroves adversely impacts natural resources and the environment in the United States by reducing global biodiversity.

209. Mangrove Swamps, *supra* note 131.

210. General Agreement on Tariffs and Trade, *supra* note 75, at art. XX(g).

211. *See, e.g.*, Concentrated Aquatic Animal Production Facilities, 40 C.F.R. § 122.24 (2004) (requiring national pollutant discharge elimination system (NPDES) permits for “concentrated aquatic production facilities”); Aquaculture Projects, § 122.25 (requiring NPDES permits for “discharges into aquaculture projects”).

212. *Id.* §§ 122.24, 122.25.

213. Clean Water Act § 404, 42 U.S.C. § 1344 (2000).

214. § 402, 42 U.S.C. § 1342.

CONCLUSION

Although the Commerce Department ruled favorably on the STAC petition in January 2005, tariffs will benefit only a small portion of the domestic industry and will price foreign firms out of the marketplace. Brazil, China, Ecuador, India, Thailand, and Vietnam will almost certainly challenge the imposition of antidumping tariffs through the WTO dispute resolution mechanisms. Because of the recent WTO decisions regarding the CDSOA, a challenge to the imposition of duties on shrimp is likely to be successful.

The U.S. shrimp industry is in serious trouble and is understandably pursuing multiple avenues to improve its economic situation. Antidumping tariffs, however, are inappropriate in this situation because the exporting nations are not engaged in unfair trade practices. Shrimp imports are not on the rise because the exporting nations are dumping shrimp on the U.S. market. Developing nations are simply responding to increasing demands of U.S. consumers which cannot be met by the domestic industry. Rather than further alienating the international community by seeking unfair tariffs, the U.S. shrimp industry should consider all its options, including reducing the demand for farmed shrimp through niche marketing and forcing foreign producers to internalize environmental costs by embargoing shrimp raised using environmentally destructive practices.

By framing the rise in shrimp imports as an environmental issue, rather than as an economic one, the U.S. shrimp industry can fight imports by appealing to the consciences of U.S. consumers. Developing nations are able to export shrimp cheaply because, in addition to having access to cheap land and labor, most shrimp farms externalize the environmental costs of production. U.S. harvesters and producers are required to protect the environment, which raises their production costs—sometimes to the point where they cannot compete.

One innovative U.S. shrimp producer, however, is proving that it is possible to conduct responsible aquaculture and compete in a niche market. On July 9, 2004, OceanBoy Farms, Inc. received the U.S. Department of Agriculture (USDA) organic seal for its shrimp products.²¹⁵ OceanBoy Farms' Florida Sweet Shrimp™ are also USDA certified antibiotic-free, chemical-free, and hormone-free.²¹⁶ According to the company's website,

215. Press Release, OceanBoy Farms, Inc., Good News for Consumers! USDA Organic Certification for Shrimp Awarded to OceanBoy Farms in Florida, at <http://www.oceanboyfarms.com> (last visited Apr. 30, 2005).

216. *Id.*

“OceanBoy Farm’s [sic] mission is to produce the best tasting, freshest, cleanest shrimp on the planet, without polluting it.”²¹⁷

OceanBoy Farms, located in south central Florida, breeds its own “pathogen-free post larvae shrimp” at its own organically certified hatchery.²¹⁸ The shrimp are fed organic food pellets processed from organic tilapia also raised by OceanBoy.²¹⁹ OceanBoy’s operations are located fifty miles inland and therefore do not threaten Florida’s fragile coastal ecosystem. A zero discharge policy and a unique biofiltration matrix for the treatment and re-use of water protect the terrestrial environment and the water supply.²²⁰ OceanBoy also operates a mangrove nursery where seedlings are grown for use in the water treatment ponds and for later sale or donation for replanting efforts throughout Florida.²²¹

OceanBoy’s mission and operations should serve as a model, not only for the U.S. industry, but to shrimp farmers around the world. It is possible to produce shrimp in an environmentally-friendly manner. Consumers now have the choice to purchase cheap imports that threaten coastal environments or to spend their money responsibly. Some sectors of the U.S. shrimp industry are encouraging consumer responsibility. More need to do so. Their livelihood depends on it. The establishment of an environmentally friendly shrimp industry in the U.S. would provide a solid foundation for a future trade embargo of farmed shrimp. With some monetary support, technology transfer, and economic incentives, shrimp aquaculture can improve around the world. Until then, however, the U.S. industry should lead the way.

217. OceanBoy Farms, Inc., Corporate Mission, at <http://www.oceanboymfarms.com/Company/CompanyHome.htm> (last visited Apr. 30, 2005).

218. Press Release, *supra* note 215.

219. *Id.*

220. *Id.*

221. OceanBoy Farms, Inc., Mangroves, at <http://www.oceanboymfarms.com/Environment/EnvironmentMangroves.htm> (last visited Apr. 30, 2005).