

CURRENT DEVELOPMENTS

World Trade and the Environment: A Review of the New WTO Report

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I. INTRODUCTION

On October 14, 1999, the Secretariat of the World Trade Organization (WTO) issued a report on "Trade and Environment."¹ Blooming six weeks before the

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1. WTO SECRETARIAT, SPECIAL STUDIES 4, TRADE AND ENVIRONMENT (1999), *available at* (visited Jan. 2, 2000) <<http://www.wto.org/wto/environ/environment.pdf>> [hereinafter WTO REPORT]. The World Bank has also recently issued a volume on this topic. *See* WORLD BANK, DISCUSSION PAPER NO. 402, TRADE, GLOBAL POLICY, AND THE ENVIRONMENT (Per G. Fredriksson ed., 1999).

WTO Ministerial Conference in Seattle, the report was widely perceived to be an effort by the WTO Secretariat to put international trade in a more favorable light. An advance copy of the report delivered to *The Economist* resulted in a cover story suggesting that the WTO "is starting to look for common ground with green lobbyists who accuse it of ruining the environment."² Calling the new WTO Report an "olive branch" and an "overture to environmentalists," *The Economist* urged environmentalists to respond favorably.³

Other commentators did not perceive the report to be an olive branch. The headline in the *Financial Times* was "WTO Defends Record on the Environment. Trade Report Criticism from Ecologists Deflected."⁴ The Bureau of National Affairs headlined it as "WTO Report Aims to Counter Claims of Agenda Threatening Environment."⁵

The purpose of this review is to present the findings of the WTO Report and to comment on them. While the author concurs with *The Economist* and other observers that the WTO Report is important, more extensive public debate about the Report is needed to better appreciate its significance. Furthermore, public debate can also point to follow-up analyses that should be undertaken by the WTO Secretariat or other organizations.

This article has three analytical parts. Part II summarizes the report and provides some commentary on particular findings. Next, Part III compares the Report to the two previous reports on environment by the WTO-predecessor organization, the General Agreement on Tariffs and Trade (GATT). Part IV then notes some major gaps in the WTO Report. The overall conclusion is that while the WTO Report delineates some key linkages between trade and environment, its presentation is unbalanced. The Report focuses on environmental policy failures and gives almost no attention to trade policy failures. The Report also neglects to discuss the role of import controls in wildlife conservation.

II. SUMMARY AND ANALYSIS OF THE REPORT

The WTO Report comprises fifty-nine dense pages and contains numerous analytical and empirical points. This Part contains six sections which present the main findings in the Report. The first section discusses the Report's conceptual framework. The second section reviews the sectoral case studies. The third section addresses the environmental impact of trade. The fourth section explores the political economy of trade and integration. The fifth section looks at the

2. *Embracing Greenery*, *ECONOMIST*, Oct. 9-15, 1999, at 89.

3. *Id.* at 89-90. See also *WTO Admits Trade Damages the Environment*, World Wildlife Fund Press Release (Oct. 13, 1999), available at (visited Jan. 2, 2000) <<http://panda.org/news/press/news.cfm?id=1705>>.

4. Frances Williams & Vanessa Houlder, *WTO Defends Record on the Environment. Trade Report Criticism from Ecologists Deflected*, *FIN. TIMES*, Oct. 15, 1999, at 13.

5. *WTO Report Aims to Counter Claims of Agenda Threatening Environment*, 22 *INT'L ENV'T REP.* 880 (1999).

debate on economic growth and the environment. The sixth and last section draws together the ways in which the WTO Report critiques the environment regime.⁶

A. CONCEPTUAL FRAMEWORK

The WTO Report puts forward a helpful conceptual framework of environmental policymaking. Governments use environmental policy to respond to environmental degradation. Environmental degradation has two main causes — market failures and previous government policy failures. Market failures are situations in which the market forces of supply and demand fail to deliver an optimal degree of environmental quality to society as a whole. This occurs when economic activities impose costs on individuals who are not part of a transaction. It also occurs when property rights to natural resources are vested in common so that individual users lack an incentive to conserve. Government policy failures are counterproductive actions taken by governments for an ostensible public purpose. The Report points to energy, agriculture, and fishery subsidies as policy failures.⁷

To respond to market failures, the Report suggests that governments should bring to bear economic instruments directly on the “source” or “root causes” of the problem.⁸ For example, an environmentally-harmful production input should be taxed. The Report contrasts direct instruments like a domestic tax with indirect instruments like a tariff on imports. The WTO Secretariat claims that the direct instrument aimed at the source is likely to be more effective and less costly than an indirect instrument.

In crafting an environmental policy, it is vital to identify whether the problem being addressed is local, transboundary, or global. This distinction is important because the policy strategy must be suited to the scale of the problem. When local problems are addressed, there may be no need for governments to pursue the same policies that other governments pursue. But, as the Report explains, the “case is different for transboundary and global problems where policy harmonization and collective management of common resources is perhaps the only feasible option.”⁹

The WTO Secretariat begins its analysis by positing that in an “idealized world,” governments would employ “proper” environmental policies to correct

6. The WTO Report does not use the term “regime.” The author uses it here to denote the complex of treaties, institutions, and informal processes used by governments and other participants in international policymaking. Thus, there is an international environment regime, a trade regime, a health regime, etc.

7. WTO REPORT, *supra* note 1, at 2, 13-14. Although the Report does not say the following, it should be noted that while such subsidies can be unintended *environmental* policy failures, they may be policy successes for whatever social purpose was intended by the government — for example, regional development. It would take additional analysis to ascertain whether such subsidies should be considered overall government policy failures.

8. *Id.* at 3, 14, 26-27.

9. *Id.* at 16.

market failures and to remove their own induced policy failures.¹⁰ In such a world, the Report contends, "trade liberalization would unambiguously raise welfare."¹¹ But the Report is quick to admit that no one lives in such a world. Therefore, the Secretariat recognizes that "trade liberalization could potentially exacerbate the consequences of poor environmental policies."¹²

Although this formulation presents trade liberalization as being one step removed (because environmental policy inadequacies are really to blame), it is nevertheless a clear admission that trade can have negative environmental consequences. This admission provides justification for environmentalist attention to trade during the 1990s. Moreover, by agreeing that trade can worsen the environment, the Report points to the need to conduct empirical analysis to determine whether trade is in fact harmful, and to conduct theoretical analysis to help predict when trade will have negative versus positive effects.

B. SECTORAL STUDIES

Underlining the point that trade/environment analysis requires empirical study, the Secretariat presents five mini-case studies of agriculture, deforestation, global warming, acid rain, and overfishing. The common theme of these studies is that the root cause of environmental degradation is not trade but rather various market and government policy failures.¹³ Yet as some of these studies show, trade can sometimes exacerbate environmental problems.

1. Agriculture

The Report presents the agriculture case as an example of a trade/environment issue of mainly local impact.¹⁴ According to the Report, the environmental problem is that chemically-intensive agriculture can pollute groundwater, harm wildlife, and damage human health by leaving chemical residues in food.¹⁵ The Report suggests that the proper response is a tax on inputs by the country of production. (Oddly, the WTO Secretariat does not discuss government regulation of chemical use, which is used more frequently than taxation.)

In presenting agriculture as a local problem, the Report fails to focus on the interests of importing countries in maintaining a safe food supply. The Report explains that "[c]hemical residues in food are not strictly speaking an environmental externality as long as consumers are aware of their existence, are able to

10. *Id.* at 2.

11. *Id.*

12. *Id.* at 2, 26.

13. *See id.* at 26.

14. *See id.* at 14.

15. *See id.*

evaluate their potential health effects, and have alternatives to choose from.”¹⁶ While this is technically true, it begs the question of whether a government that regulates the use of chemicals in domestic agriculture should utilize border measures to prevent the entry of like imports not meeting national health standards. Using a trade measure in this way would seem relatively efficient as compared to the alternatives of (1) applying no standards to imported agriculture (and thereby suffering the health consequences) or (2) attempting to negotiate common production standards with all supplying countries.

2. Deforestation

Deforestation is accurately presented as having both local and global impacts. At the local level, there is a trade-off between retaining land for forests and clearing it for more profitable uses. At the global level, forests preserve biodiversity and bind carbon. Yet these environmental services go uncompensated by the beneficiaries. Thus, pressures at the local level can lead to deforestation even when that outcome is not the optimal global (or perhaps even local) policy. To remedy this problem, the WTO Secretariat suggests that carbon dioxide emission rights be allocated worldwide to countries in proportion to each country's share of biomass.¹⁷ Recognizing that “this hypothetical scheme is unlikely to be put into practice,” the Secretariat laments that “[e]conomic inferior measures may instead carry the day, including putative trade measures against countries engaging in deforestation.”¹⁸

While such theoretical reflections are useful, the case study says little about practical questions. One issue on the table in preparation for the anticipated Seattle Ministerial Conference was whether tariffs should be cut on forestry products.¹⁹ It would have been helpful if the Secretariat had studied that question and presented its findings to the governments considering such tariff cuts. Because the Report confirms that economic distortions can exacerbate deforestation, it seems an open question whether tariff cuts that catalyze more forestry trade will be an environmental plus or minus.

3. Global Warming

Global warming is a worldwide problem that requires a coordinated solution. According to the Secretariat, the trade dimension to this issue is that

16. *Id.* at 14 n.17. The Report goes on to say that it is unlikely that consumers will be able to evaluate such potential health effects.

17. *See id.* at 18. It is unclear from the Report whether the Secretariat would allocate emission rights in relation to share of biomass or share in growth of biomass.

18. *Id.*

19. *See Lynda V. Mapes, Free Trade, Forests at Odds? Environmentalists Warn About Agreement*, SEATTLE TIMES, Sept. 14, 1999, at B3; *Environmental Group Sees Threat to World's Forests from WTO Rules*, 22 INT'L ENV'T REP. 814 (1999).

transportation of products emits carbon dioxide. The Report explains that this problem should be addressed with taxes on carbon fuel, rather than trade measures, because there is no reason to discriminate between domestic and international transport.

4. Acid Rain

The acid rain case is presented as a prototypical transborder problem where market failures in one country affect a neighboring country sharing the same environmental resource.²⁰ For example, pollution originating in one country can cause damage to another country. The Secretariat suggests that the preferred solution to this problem is negotiation between the countries and gives examples of such agreements. But when the two countries have conflicting incentives and a cooperative solution is not negotiable, the victim country may need to pay the polluting country to reduce pollution.²¹ If such a course of action proves politically infeasible, the Report states that “[p]ublic pressure may then mount to use the stick instead, including targeted trade barriers against countries that are deemed to have insufficient domestic environmental standards.”²² The Report notes that this can be a potentially effective response, but points out that a small country cannot use it against a larger one.

5. Overfishing

The overfishing case study is presented as an example of a dual market and government policy failure. The Report explains that fishing subsidies are common and have generated an “enormous overcapacity.”²³ Noting that such subsidies distort trade and cost the taxpayer, the Secretariat says that these subsidies may provide “the most clear-cut example of a case where a reduction of trade-distorting measures could contribute to a better global management of natural resources.”²⁴

6. Observations

Although the WTO Report correctly states that trade does not cause the five problems profiled above, the Report goes too far in denying the efficacy of trade-related environmental measures.²⁵ The analytical error occurs in comparing indirect trade measures taken by an importing country to potential environmental

20. See WTO REPORT, *supra* note 1, at 3, 20.

21. See *id.* at 20.

22. *Id.* at 21.

23. *Id.* at 24-25.

24. *Id.* at 26; see also *id.* at 3.

25. See *id.* at 3, 26-27.

measures taken by an exporting country.²⁶ The proper comparison would focus on the choices available to a policymaker. Often the policymaker's choice will be between using a second-best trade instrument versus taking no action at all (in the absence of international cooperation).²⁷

The economic ideal of addressing a problem at its source runs into the legal problem that a government cannot impose a measure at the source (or root) when it lacks jurisdiction to do so. If a manufacturer in Country A is polluting Country B, then B's government cannot target action at the source. B's option set is shaped by both international law and the domestic policy constraints within B. The WTO Report takes the reader to this point (see above discussion of acid rain), but abandons her there. Yet B's quandary is a paradigmatic question for environmental policymakers.

That such an analysis is missing would have been even more evident if the Secretariat had included a case study on protecting endangered species. Historically, this environmental challenge has seen the most intensive use of trade measures. If Country A is mismanaging its bird population and seeks to export feathers to Country B, there is no way that B can put a first-best bird tax into place within A's territory. Thus, if B wants to slow down the bird killing, then blocking feather imports from A may be an effective measure and perhaps the only recourse A has. The failure to address this class of problems is a big hole in the WTO Report.

C. ASSESSING THE ENVIRONMENTAL IMPACT OF TRADE

The next chapter of the WTO Report summarizes econometric studies that have examined the impact of trade on the environment. Unlike the sectoral studies discussed above, these studies look at entire economies and attempt to identify how one factor affects another.²⁸

After surveying several studies, the Report concludes that "trade liberalization can harm the local environment in countries with a comparative advantage in polluting industries and improve the local environment elsewhere."²⁹ The Report is not entirely clear about what type of country could have a comparative

26. *See id.* at 15, 18, 26-27.

27. According to the Report, a first-best policy instrument would be aimed directly at the input or practice that is causing social harm. *See id.* at 14. The Report admits that "well crafted trade policies could in principle be used as a second-best instrument to address environmental problems . . .," but the WTO Secretariat asks why governments should sidestep with a second-best, less efficient policy instead of applying a first-best policy aimed more directly at production or consumption. *Id.* at 3, 15. The answer (not in the Report) is that an importing country may not be able to persuade an exporting country to use a first-best policy.

28. Trade can affect the environment in three ways. *See id.* at 3, 29. First, there are "composition" effects as trade induces capital movements and industrial specialization. Second, there are "scale" effects as trade boosts overall economic activity and the use of resources. Third, there are "technique" effects as trade leads to cleaner production methods induced by changed attitudes and facilitated by technology flows. The Report explains that the interaction of these three variables determines how trade affects the environment. *See id.*

29. *Id.* at 34.

advantage in polluting industries. It does not seem to mean a country with supernaturally-robust animals and plants.

In pointing out that trade liberalization can harm some countries, the Report tries to put this in context by explaining that "the income gains from trade could, in principle, pay for additional abatement costs in order to undo any negative repercussions on the environment and still leave a net economic surplus."³⁰ Unfortunately, the Report does not provide proof. The Report suggests that the air pollution impact of the Uruguay Round could be mitigated by a few percentage points of the overall economic gain,³¹ but does not provide similar estimates for other pollutants or for overuse of natural resources. While it may be the case that overall gains from trade exceed overall costs, the Report will not convince anyone who doubts this proposition.³²

D. POLITICAL ECONOMY OF ECONOMIC INTEGRATION

The next chapter looks at several issues regarding the political economy of economic integration.³³ In contrast to the previous chapter that models market effects, this chapter explicitly considers how trade and economic integration affect the setting of environmental policy. It notes that some environmentalists fear that increasing capital mobility and competitive pressures will undermine regulatory efforts of governments.³⁴

An initial issue is whether environmental regulations and taxes affect competitiveness. The Report cites a study suggesting that environmental regulations may account for one to five percent of production costs in industrial countries.³⁵ It also points to interview data suggesting that environmental regulation sometimes imposes a significant cost.³⁶ Counterbalancing this evidence, the Report suggests that the innovation induced by environmental regulation can make such regulation less costly than it might first appear.³⁷ On the whole, the Report concludes that the competitive effects of environmental regulation are "minor."³⁸

Although the Report makes a number of good points, the discussion on competitiveness does not distinguish enough between impacts on a firm, impacts on an industrial sector, and impacts on an economy. For example, in declaring

30. *Id.* at 11, 34; *see also id.* at 4.

31. *See id.* at 34. The Report also discusses a broader study of Indonesia.

32. In one of the early research projects on trade and environment, two prominent trade economists pointed out that without appropriate environmental policies in place, trade could reduce a country's overall welfare. Kym Anderson & Richard Blackhurst, *Trade, The Environment and Public Policy*, in *THE GREENING OF WORLD TRADE ISSUES* 3, 19 (Kym Anderson & Richard Blackhurst eds., 1992).

33. *See id.* at 35.

34. *See id.* at 4.

35. *See id.* at 36 (citing *The Effects of Government Environmental Policy on Costs and Competitiveness: Iron and Steel Sector*, OECD Doc. DSTI/SI/SC(97)46 (1997)).

36. *See id.* at 37.

37. *See id.* at 36-37.

38. *See id.* at 5.

that environmental regulations “do cost, but they also bring significant benefits to society and the quality of life,” the Report does not make clear to whom these costs and benefits accrue.³⁹ One reason why so much disagreement persists about the “competitiveness” implications of environmental policy is that some people talk about economy-wide effects and others talk about firm-specific effects.

Another issue is whether increased environmental regulation induces firms to relocate elsewhere. On the one hand, there is evidence from the United States that compliance costs may have an impact on the location of polluting plants.⁴⁰ On the other hand, studies of trade patterns have not found much evidence that developing countries have taken a greater share of “dirty” production.⁴¹ Overall, the Report concludes that the data do not support the hypothesis that production is moving to countries with more lax environmental standards. In addition, the Report notes a body of research suggesting that multinational enterprises do not seek to escape environmental obligations by moving polluting plants to developing countries with lower standards. A corporation will often want to maintain environmental standards higher than required because of its own commitment to good environmental management, or because of external pressure from ecolabeling systems, financial community oversight, or monitoring by consumer groups.⁴²

Still another issue is whether there is a “race to the bottom.” That is, do some governments seek to lower environmental standards (or to keep them low) in order to attract investment? Although the Secretariat notes that this is a theoretical possibility, it does not find much evidence of such a race.⁴³ The Report explains that the movement of dirty industries to developing countries may result more from such industries being made unwelcome in high-income countries than from any explicit choice by developing countries to attract such investment.⁴⁴ In this reviewer’s opinion, the WTO Report reaches the right conclusion here. Yet the pervasiveness of the view, among many critics of trade, that there is a race to the bottom ought to give any honest analyst pause. Why the disjunction between myth and evidence? One wonders whether it is the colorful metaphor “race to the bottom” that sustains this critique of globalization in the public debate.

The final issue is whether there is “regulatory chill.” That is, do concerns about trade cause governments to underregulate environmental harms? Based on a literature review, the Report finds that “environmental measures are sometimes defeated because of competitiveness concerns.”⁴⁵ The Report further states that

39. *Id.* (emphasis in original).

40. *See id.* at 39.

41. *Id.*

42. *See id.* at 5, 41. *See* Suzanne Robitaille, *Air Pollution Worries Hong Kong Firms*, WALL ST. J., Jan. 4, 2000, at A19.

43. *See id.* at 5, 43, 45.

44. *See id.* at 44.

45. *Id.* at 5, 44-45. In a current example of regulatory chill, not mentioned in the WTO Report, the Government of The Netherlands is preparing new measures to reduce carbon dioxide emissions, but is hesitant

“economic integration has, or at least is *perceived* to have[,] diminished the regulatory power of individual nations.”⁴⁶ Nevertheless, the Secretariat seems to conclude that this is not a serious problem. It hypothesizes that any regulatory chill may spur governments to seek cooperative solutions to environmental problems.⁴⁷ As evidence it cites the existence of 216 multilateral environmental agreements. Yet the Report provides no reason to infer that national competitive fears are being overcome through environmental treaties.

The Report also declares, without any evidence, that the lasting effect of regulatory chill “may be more procedural than substantial.”⁴⁸ By this, the WTO Secretariat apparently means that the locus of environmental regulation will “be shifted from the national to the supranational level”⁴⁹ Leaving aside the issue of what the WTO Secretariat means by “supranational,” this entire section is puzzling because the Report does not explain how regulatory chill is overcome in the absence of full cooperation of all major national competitors.⁵⁰ Nor does the Report provide a reason for believing that competitive worries will sufficiently induce environmental cooperation to keep pace with ecological challenges.

E. ECONOMIC GROWTH AND THE ENVIRONMENT

The Report devotes considerable attention to the relationship between trade, economic growth, and the environment. The main focus of this chapter is the “Environmental Kuznets Curve,” which plots the relationship between national income per capita and an indicator of pollution.⁵¹ When such research began in the early 1990s, it was found that some pollution rose at the early stages of development but fell back after a certain income level was attained. These results were warmly received by trade policymakers because they implied that the greater pollution triggered by economic growth would be self-correcting. At the time, economists posed the question of whether this relationship held in all

to move forward unless the United States takes comparable action. See John J. Fialka, *Kyoto Treaty's Foes in U.S. Could Kill Pact Around the World*, WALL ST. J., Oct. 19, 1999, at B1. In July 1997, the U.S. Senate voted unanimously that the U.S. government should not sign a Kyoto Protocol that would mandate reductions in greenhouse gas emissions by industrial countries unless the Protocol also contained commitments for developing countries. The rationale behind the Senate's position was that the prospective level of emissions reduction for industrial but not developing countries could result in job loss, trade disadvantages, and higher costs for the United States. See S. Res. 98, 105th Cong., 143 CONG. REC. S8113-05, S8138 (1997) (enacted).

46. WTO REPORT, *supra* note 1, at 10. See also *id.* at 6, 57, 59.

47. See *id.* at 45.

48. *Id.* at 5, 45.

49. *Id.* at 7, 45.

50. For an early discussion of how open trade can restrain the freedom of action of governments to discourage harmful production or consumption, see JAMES E. MEADE, *THE INTELLIGENT RADICAL'S GUIDE TO ECONOMIC POLICY* 141 (1975).

51. WTO REPORT, *supra* note 1, at 6, 11, 47-49 (discussing the Kuznets curve). The WTO Report contains several references for readers wishing to explore this issue.

countries and for all forms of environmental degradation. Considerable research and analysis on these issues ensued for the rest of the decade.

Based on this research, the WTO Report reaches three main conclusions. First, the so-called "inverted-U" relationship holds for some pollutants but not others. Second, overall economic growth does not necessarily bring down pollution. Third, bringing down pollution requires active intervention by governments. Greater democratic decisionmaking tends to promote such intervention.

According to the Report, the "evidence suggests that the EKC [Environmental Kuznets Curve] hypothesis may be valid for some types of environmental indicators, but equally untrue for other important indicators."⁵² The up-and-down pattern is seen for some urban air pollution (e.g., sulfur dioxide) and to a lesser extent for some types of freshwater pollutants (e.g., arsenic). But this pattern is not seen in pollutants of a more global nature (e.g., carbon dioxide).⁵³ Thus, the "existence of an eventual turning point depends almost entirely on the type of emission reviewed . . ."⁵⁴ Moreover, there may be more than one turning point and very differently shaped curves.⁵⁵ In addition, the Report notes that some turning points come at very high incomes.

One of the best sections of the Report is its discussion of the policy implications of pollution curves. The Report points out that these curves should not be interpreted to predict that environmental degradation will necessarily turn around as a result of increasing income.⁵⁶ In other words, "growth *per se* does not reduce pollution;" rather, pollution reduction requires increased income to be followed by tighter environmental standards.⁵⁷

The Report also notes that economic integration and trade may affect the shape of a pollution curve.⁵⁸ It is conceivable that a fall in pollution stems from outmigration of polluting industries. If that were true, it would suggest that some countries are getting cleaner at the expense of others.⁵⁹ But the Secretariat finds little evidence that this is happening.⁶⁰

When pollution curves were first investigated, the relationship between national income and pollution control was explained through the greater financial capacity of a country to undertake pollution control. Further analysis, according to the WTO Report, suggests that the prevalence of democratic norms and a more equal income distribution may be better explanations.⁶¹ In other words,

52. *Id.* at 6. *See also id.* at 47, 54.

53. *See id.* at 54.

54. *Id.* at 53. Further, the Report states that the Environmental Kuznets Curve may not have a natural turning point. *See id.* at 7, 58.

55. *See id.* at 53-55.

56. *See id.* at 6, 52, 57, 58.

57. *Id.* at 48.

58. *See id.* at 6, 48, 56.

59. *See id.* at 51.

60. *See id.* at 4, 39-40, 48.

61. *See id.* at 7, 11, 51-52, 57.

governments promulgate regulations not because countries are richer but because citizens demand that regulators act.

F. ASSESSING THE ENVIRONMENT REGIME

One of the most interesting features of the Report is its assessment of the weaknesses of the mechanisms and institutions for multilateral environmental cooperation. Although some might question whether this is a proper topic for the WTO Secretariat, from the perspective of this reviewer, it is an appropriate analytical activity. All international institutions are in need of improvement, and often those professionals who are part of a regime cannot conduct an objective assessment.

The fundamental finding of the WTO Secretariat is that increased trade and economic integration reinforce the need for greater environmental cooperation on global and transborder problems.⁶² This is so because economic integration makes it harder for governments to adopt optimal environmental policies unilaterally. As the Report explains, "the globalization of the world economy may have reduced the regulatory autonomy of countries, thereby making it more difficult to upgrade environmental standards unless as part of a concerted effort among nations."⁶³

While noting that such concerted efforts are taking place, the WTO Secretariat expresses dissatisfaction with the environment regime. The Report characterizes international environmental institutions as "weak," a "failure," and "not always coherently linked together."⁶⁴ There is a need to "strengthen" and to "reinvent" environmental institutions and to seek "a new global architecture of environmental cooperation," the Report says.⁶⁵ One specific deficiency noted is that the environment regime has weak enforcement mechanisms and lacks an integrated dispute settlement system backed by trade sanctions as the ultimate enforcement tool.⁶⁶ The WTO Secretariat opines that the WTO system, "based on legal rights and obligations, could potentially serve as a model for more structured environmental cooperation among nations."⁶⁷

Unfortunately, this discussion is rather sparse; so one cannot be sure what the WTO Secretariat has in mind. Does the Secretariat believe that environmental treaties lack rights and obligations? Would it favor decisions by parties to multilateral environmental agreements to establish an integrated dispute settlement system backed by trade sanctions as the ultimate enforcement mechanism? These points should be addressed in any follow-up WTO report.

62. *See id.* at 1, 11, 59.

63. *Id.* at 57.

64. *Id.* at 4, 7, 11, 26, 34, 52, 57, 59.

65. *Id.* at 7, 59.

66. *See id.* at 7, 57.

67. *Id.* at 59.

Any follow-up report should also adopt a more integrated analytical approach. Although the Secretariat notes that “economic growth without the necessary sensitivity to environmental quality is not sustainable over the long run,” this insight is not developed in the Report.⁶⁸ Instead, the Secretariat succumbs to conventional thinking in urging governments to seek “an appropriate balance between environment[al] and economic interests.”⁶⁹ Yet environmental and economic interests are two lenses for looking at the same phenomena.⁷⁰ While a private transaction may perceive the environment as an externality, government officials should adopt a more inclusive vision. They should not view the environment as external to a government’s economic decisionmaking. The problem with the “balance” metaphor is its assumption that economic growth and environmental quality are always alternatives to choose between. Sometimes they are, but often they are mutually reinforcing.

III. COMPARISON TO PREVIOUS SECRETARIAT REPORTS

The suggestion by *The Economist* that the WTO Report is an “olive branch” is an intriguing one. If true, then it is important for the environment community to recognize this. The olive branch conjecture might also signify a changed attitude regarding the environment on the part of the WTO Secretariat. If true, such “greening” would be noteworthy.

One way to judge the bureaucratic significance of the WTO Report is to compare it to the two previous reports on the environment by the GATT Secretariat. The first report was published in 1971 as the GATT’s contribution to the U.N. Conference on the Human Environment (the Stockholm Conference).⁷¹ The second report was published in 1992.⁷² Both of the earlier reports contain detailed discussions of GATT law not included in the WTO Report.

The 1971 Report covers some of the same ground as the WTO Report. The 1971 Report observes that differentials in environmental regulatory costs among countries can be a determinant of international trade patterns.⁷³ It points out that “[o]ne possible result of national responses to the environmental problem could be an accelerated transfer of industries or processes causing the most pollution to

68. *Id.* at 6.

69. *Id.* at 14.

70. For further discussion, see Steve Charnovitz, *Improving Environmental and Trade Governance*, 7 INT’L ENVTL. AFF. 59, 60-61 (1995) (introducing the term “ecology”).

71. See GATT, GATT STUDIES IN INTERNATIONAL TRADE NO. 1, INDUSTRIAL POLLUTION CONTROL AND INTERNATIONAL TRADE (July 1971) [hereinafter 1971 REPORT]. The WTO Report takes note of the 1971 Report, but does not discuss it. See WTO REPORT, *supra* note 1, at 9.

72. See GATT, *Trade and the Environment*, in 1 GATT, INTERNATIONAL TRADE 90-91, at 19-47 (1992) [hereinafter 1992 Report]. The WTO Report (strangely) takes no note of the 1992 Report.

73. See 1971 REPORT, *supra* note 71, at 11.

countries facing a less urgent pollution problem."⁷⁴ The Secretariat views such transfer as benign, stating that it "would thereby assist the industrialization efforts of the receiving country"⁷⁵ Another area of overlap is the recognition that environmental regulation can stimulate productivity improvements.⁷⁶ The reports are also similar in noting the importance of international cooperation on environmental policy.⁷⁷

There is considerably more overlap between the 1992 Report and the WTO Report. Both reports begin by arguing that trade liberalization can worsen the environment only in the absence of appropriate government environmental policies.⁷⁸ Both reports admit that trade can magnify ecological damage entailed by imperfect environmental policies.⁷⁹ Both reports conclude that the cost differences due to environmental regulations are small and that there is little apparent relocation of investment driven by environmental regulations.⁸⁰ Both reports point out that higher environmental standards can raise productivity and competitiveness.⁸¹ Both reports suggest that national environmental standards aimed at internal problems will properly vary from country to country.⁸² And both reports underline the importance of multilateral environmental cooperation.⁸³

Yet there are also important differences between the 1992 and 1999 Reports. While both reports proclaim that trade barriers are poor environmental policies,⁸⁴ the 1992 Report criticizes the use of trade measures in multilateral environmental agreements, while the WTO Report seemingly does not.⁸⁵ While both reports note the problem of regulatory chill, only the WTO Report considers the problem potentially serious enough to warrant analysis.⁸⁶ While both reports illustrate the Environmental Kuznets Curve, the WTO Report presents a more detailed discussion, having benefited from the considerable academic research since 1992.⁸⁷

74. *Id.* at 23. This analysis assumes that the receiving country would face a less urgent pollution problem rather than simply being more in need of investment.

75. *Id.*

76. *Id.* at 24; WTO REPORT, *supra* note 1, at 36-37.

77. See 1971 REPORT, *supra* note 71, at 18, 22, 23.

78. See 1992 Report, *supra* note 72, at 20; WTO REPORT, *supra* note 1, at 2.

79. See 1992 Report, *supra* note 72, at 20; WTO REPORT, *supra* note 1, at 26.

80. See 1992 Report, *supra* note 72, at 31; WTO REPORT, *supra* note 1, at 4, 5, 37, 39.

81. See 1992 Report, *supra* note 72, at 31; WTO REPORT, *supra* note 1, at 36.

82. See 1992 Report, *supra* note 72, at 29; WTO REPORT, *supra* note 1, at 3, 15-16.

83. See 1992 Report, *supra* note 72, at 20-21, 35-36; WTO REPORT, *supra* note 1, at 1, 11, 16, 20, 59.

84. See 1992 Report, *supra* note 72, at 21, 28; WTO REPORT, *supra* note 1, at 3, 15, 26-27.

85. See 1992 Report, *supra* note 72, at 21, 25, 35-36; WTO REPORT, *supra* note 1, at 3, 27. But the WTO Report does suggest that some use of trade measures in environmental treaties could violate WTO rules. WTO REPORT, *supra* note 1, at 20. The 1971 Report, by contrast, seems to suggest that trade measures in MEAs are GATT-legal. See 1971 REPORT, *supra* note 71, at 18.

86. See 1992 Report, *supra* note 72, at 28; WTO REPORT, *supra* note 1, at 5, 35, 44-45.

87. See 1992 Report, *supra* note 72, at 29-30; WTO REPORT, *supra* note 1, at 47-58.

Looking at the series of reports, one can see an increasing sophistication in the GATT/WTO Secretariat about environmental issues. One can also see a common analytical thread, particularly in the 1992 and 1999 reports. The journalistic view that the WTO Report seeks to rebut green critics seems justified. But the olive branch view may also be correct as the Secretariat refrains from discussing the danger of alliance between protectionists and environmentalists, which was a major theme in the 1992 Report.⁸⁸ Comparing the three GATT/WTO reports over three decades is useful in seeing the changing ways in which trade economists perceive the linkages between trade and environment. Neither the 1999 Report nor the 1992 Report devotes any attention to the previous report(s), but analysts of the trade and environment linkage should read the earlier reports which, in some ways, are more sophisticated than the WTO Report.

IV. GAPS IN THE WTO REPORT

The WTO Report has an odd orientation. For the most part, the Report focuses on the impact of trade on the environment in the context of an environment regime characterized by serious policy failures. These issues are important. But one would think that a WTO-produced report would address another important issue — namely, the impact of the trade regime on the environment. In other words, what is the impact of *trade policy* on the environment in the context of a trade regime characterized by serious policy failures?

Part IV of this article elaborates on what is missing from the WTO Report. The first section addresses the environmental impact of trade policy. The second section assesses the environmental impact of WTO rules.

A. ASSESSING THE ENVIRONMENTAL IMPACT OF TRADE POLICY

Although the Secretariat criticizes environmental regulators and other domestic decision-makers for their “policy failures,” the WTO Report gives scant attention to the policy failures of trade regulators.⁸⁹ Tariffs, quotas, antidumping duties, and export subsidies are utilized by many trade regulators to promote sectoral, regional, exchange rate, or employment goals. It would be highly unlikely for such trade actions to be a first-best, or even effective, instrument in achieving those social goals. Nevertheless, they are often used and can be legal under WTO rules.

While affirming that “by combining trade and environmental reforms[,] one should be able to find ways to raise incomes without compromising the natural environment,”⁹⁰ the Report devotes more scrutiny to environmental reforms than to trade reforms. The inattention to trade barriers is unfortunate because, as the

88. See 1992 Report, *supra* note 72, at 21, 24, 28, 33, 39.

89. WTO REPORT, *supra* note 1, at 2, 13, 14, 18, 20, 26-27.

90. *Id.* at 34.

Report explains, "trade is one cylinder that propels the engine of growth" and such growth is "perhaps a necessary condition for changing the focus from more immediate economic and social concerns to longer-term sustainability issues" ⁹¹ To be sure, the Report notes the benefit of opening markets to environmental technology trade. ⁹² But the Report fails to discuss the onerous protectionism against other goods and services by both industrial and developing countries.

Less commercial protectionism can be good for the environment by changing the composition and scale of production. By refraining from restrictive trade policies that distort prices, trade regulators can help producers avoid environmentally improper practices. For example, the Report notes that increased tariffs on agricultural products can lead to greater use of agro-chemicals. ⁹³ It also notes that high tariffs on food will intensify pressure to convert forests to farmland. ⁹⁴ But these points are made very briefly with no sustained analysis or attempts to generalize from them. It would be interesting to know how much environmental damage is inflicted by protectionist trade policy. But the Report provides no answer to this basic and important question.

It is unclear why the Report devotes so little attention to the need for trade liberalization. One explanation is that it is easier for the WTO Secretariat to criticize environment ministers for their policy failures than trade ministers for their policy failures. If so, this suggests that the environment regime ought to undertake its own report on trade and environment to fill the gaps in the WTO Report.

B. ASSESSING THE ENVIRONMENTAL IMPACT OF WTO RULES

The WTO Report takes note of the contention "that the legal provisions of the WTO circumscribe the tools available for environmental policymaking, including trade measures to encourage participation in and enforcement of multilateral environmental agreements." ⁹⁵ While admitting that such arguments "deserve to be taken seriously . . ." the Report seeks to "move behind the legal issues to the underlying economic and political economy dimensions of the debate . . ." ⁹⁶ Therefore, at the outset, the Secretariat states that "[l]egal issues are not pursued in this study . . ." ⁹⁷ While there is nothing wrong with writing a report that leaves out legal issues, this omission is an invitation to reviewers to point out what is missing.

91. *Id.* at 6, 57.

92. *See id.* at 7, 59.

93. *See id.* at 15, 26.

94. *See id.* at 17, 26.

95. *Id.* at 59.

96. *Id.* at 10, 59.

97. *Id.* at 1.

There are several ways in which WTO rules can undermine environmental quality. WTO rules can potentially prevent environment or health officials from using needed regulations, taxes, and trade controls.⁹⁸ Even uncertainty about WTO rules can lead to regulatory chill as governments forego policies to avoid being embroiled in trade disputes. Making changes in WTO rules can reduce the potential damage caused by the WTO.

Moving beyond damage control, it would be possible to change trade rules to give the WTO a more constructive role in promoting sustainable development. At present, WTO rules can be inadequate to prevent economic policy failures — for example, by allowing wasteful subsidies that encourage overfishing, intensive farming, and deforestation. The WTO Report points out the subsidy problem.⁹⁹ But the Secretariat offers no concrete advice for how WTO rules might be strengthened to restrain such subsidies.¹⁰⁰

One reason why the WTO is so timid is that it conceives itself as an organization of governments that works by consensus to promote mutual accommodation. But a recent WTO panel report (the Section 301 case) points the way to a broader mission for the WTO to consider not just governmental relations but the way that trade measures affect private individuals and the marketplace.¹⁰¹ The Section 301 panel states that:

[T]he GATT/WTO did not create a new legal order the subjects of which comprise both contracting parties or Members and their nationals. . . . However, it would be entirely wrong to consider that the position of individuals is of no relevance to the GATT/WTO legal matrix. Many of the benefits to Members which are meant to flow as a result of the acceptance of various disciplines under the GATT/WTO depend on the activity of individual economic operators in the national and global market places. . . . The multilateral trading system is, per force, composed not only of States but also, indeed mostly, of individual

98. For some recent studies of trade rules, see TRADE, ENVIRONMENT AND THE MILLENNIUM (Bradnee Chambers & Gary Sampson eds., 1999); Bret Puls, *The Murky Waters of International Environmental Jurisprudence: A Critique of Recent WTO Holdings in the Shrimp/Turtle Controversy*, 8 MINN. J. GLOBAL TRADE 343 (Summer 1999); T. Alana Deere, *Balancing Free Trade and the Environment: A Proposed Interpretation of GATT Article XX's Preamble*, 10 INT'L J. LEG. PERS. 1 (Spring 1998); Benjamin Simmons, *Note, In Search of Balance: An Analysis of the WTO Shrimp/Turtle Appellate Body Report*, 24 COLUM. J. ENVTL. L. 413 (1999); Friedl Weiss, *The WTO and the Progressive Development of International Trade Law*, 29 NETH. Y.B. OF INT'L L. 71, 96-102 (1998); Dukgeun Ahn, *Note, Environmental Disputes in the GATT?WTO: Before and After US — Shrimp Case*, 20 MICH. J. INT'L L. 819 (1999); Eric L. Richards & Martin A. McCrory, *The Sea Turtle Dispute: Implications for Sovereignty, the Environment, and International Trade Law*, 71 U. COLO. L. REV. 295 (2000).

99. See WTO REPORT, *supra* note 1, at 3, 24-26, 59. For new research on this issue, see International Institute for Sustainable Development, *Subsidy Watch* (visited Jan. 27, 2000) <<http://iisd1.iisd.ca/subsidywatch/default.htm>>.

100. See the vague statements in the WTO REPORT, *supra* note 1, at 7, 59 (recommending that WTO negotiations should “seek reductions” in or “address” subsidies that harm the environment).

101. See WTO Dispute Panel Report on United States — Sections 301-310 of the Trade Act of 1974, Dec. 22, 1999, WT/DS152/R, paras. 7.76, 7.86, available at (visited Jan. 20, 2000) <<http://www.wto.org/wto/ddf/ep/public.html>>.

economic operators. The lack of security and predictability affects mostly these individual operators.¹⁰²

A trade regime that views its constituents as people and governments can begin to analyze social problems from all angles. Constructive policies are far more likely to emerge from a WTO that considers the rights and views of individuals than from a WTO that considers only the rights and views of governments.

Finally, although the Secretariat notes the importance of intergovernmental cooperation on trade,¹⁰³ it does not address the exclusionary membership policy of the WTO that prevents countries like China and Russia from joining the organization. Under current rules,¹⁰⁴ applicant countries must negotiate their way into the WTO by making side deals with WTO member governments. China, for example, has been trying for over thirteen years to enter the GATT/WTO, but has not been able to satisfy key governments like the United States and the European Union.¹⁰⁵ If the world trading system is good for the environment, then it would seem to follow that open membership in the WTO would be an environmental plus. This is perhaps one lesson that the environment regime can teach the trade regime. Multilateral environmental agreements always welcome new members. They do not require prospective new members to buy their way in with special concessions.

V. CONCLUSION

The 1999 Report by the WTO Secretariat makes a useful contribution to the trade and environment debate. It explains how trade can exacerbate market failures and inadequate environmental regulation. It makes clear that economic growth, while advantageous, is not sufficient to achieve better environmental outcomes. It admits that governments may hesitate to undertake a needed environmental control out of fear that it will hurt national competitiveness. These findings will be helpful in responding to the views of many developing countries who have been arguing that "environment is *ab initio* a non trade issue."¹⁰⁶

102. *Id.*

103. *See id.* at 7.

104. *See* Marrakesh Agreement Establishing the World Trade Organization, in Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Apr. 15, 1994, art. XII, in RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS (1994); 33 I.L.M. 1125, 1150 (1994).

105. As this article goes to press, it appears as though China may finally be admitted to the WTO in 2000. China was able to satisfy the Clinton Administration by making a number of concessions — including allowing the U.S. government to continue to discriminate against Chinese exports for 12 more years in response to import surges that "disrupt" the U.S. domestic market. *See Highlights of the U.S.-China Bilateral WTO Agreement, and Statement Concerning the Resolution of Key Unresolved Issues, Prepared by the White House National Economic Council*, 220 Daily Rep. for Executives (BNA), at T-1 (Nov. 16, 1999); Gary G. Yerkey, *China Needs to Be "Responsive," "Flexible" In Ongoing Bid to Join WTO, Barshefsky Says*, 226 Daily Rep. for Executives (BNA), at A-13 (Nov. 24, 1999).

106. *G-15 Communiqué on WTO Ministerial*, para. 18 (Aug. 1999), reprinted in 17 Inside U.S. Trade No. 36, at 9 (Sept. 10, 1999).

But the Report is not uniformly strong. It asserts without proof that the gains from trade are sufficient to repair any environmental damage. It overlooks how trade measures might be more efficacious than available policy alternatives. It does not discuss ways in which WTO disciplines may prevent the attainment of environmental treaties. It gives minimal attention to the problem of protectionism and how trade policy failures can worsen environmental quality. The discussion of regulatory chill is analytically weak.

Prospective negotiations to launch a new trade round may lead to governmental action to address “trade and environment” challenges. While the WTO Report has considerable educational value, it is not focused enough on the WTO to illuminate the issues that will need to be addressed in future negotiations (e.g., tariffs on forestry products). These gaps provide an opening for the environment regime to do a report from its perspective. The Secretariat of the United Nations Environment Programme would be an appropriate institution to carry this out. After the trade regime and the environment regime complete their initial analysis of each other, then perhaps they will build enough confidence to start cooperating.¹⁰⁷

107. On the eve of the Seattle Ministerial Conference in late November 1999, the Secretariats of the U.N. Environment Programme and the WTO agreed to enhance their cooperation. See *Elements of Cooperation Between the WTO and UNEP*, WTO Press Release (Nov. 29, 1999), available at (visited Jan. 20, 2000) <http://www.wto.org/wto/seattle/english/press_e/press154.htm>.