# A Nordic Research Agenda On Environment and Trade

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# **Table of Contents**

1. Introd	uction	1
2. Backgr	round	1
3. The Su	ırvey Results	3
4. A Nor	dic Research Agenda	6
4.1 Re	esearch Linked to the Doha Negotiations	8
4.2 De	eveloping Country Research	9
4.3 Re	esearch on Regional and Bilateral Developments	.10
4.4 Re	egulatory Reform, in Particular Reform of Environmental Policies	.12
4.5 Pc	olicy Research on WTO Issues	.13
4.6 "E	Bigger Picture" Research	.16
5. Streng	thening the Impact of Research on Trade and Environment	.17
Annex A: T	The Experts Group	.19
Annex B: S	urvey Categories	.21
Annex C: I	Defining the Survey Categories	.23
	Categories in the "Inclusive" Doha Research Agenda	.26
	Brief Notes on the Survey Methodology	

#### 1. Introduction

In 2003, IISD undertook to produce a new research agenda on trade and environment, focused on the key issues on the horizon – issues where not enough research effort had yet taken place to adequately underpin the policy needs of the future. It convened a group of experts (see Annex A) in Geneva in May 2003, and in Cancun in September 2004, to help flesh out a roster of issues that will be of key importance in the coming years. Those issues were matched against a survey of over 300 recent articles, books and papers, in an effort to identify gaps in the current research effort.

The present paper draws heavily on the resulting research agenda. It doing so, however, it modifies the results to suit the purpose at hand: to help in developing a Nordic research agenda that lays out the full menu of environment and trade issues, pinpoints important gaps in current research efforts, identifies where capacity for new research exists or should be developed, recommends key areas for immediate attention and identifies mechanisms for development of research programmes.

# 2. Background

Over the past decade, 'trade policy' has come to involve a number of different issues that have been linked through the World Trade Organisation (WTO) and its agreements:

- Trade in goods: the traditional trade agenda (General Agreement on Tariffs and Trade—GATT, and the Agreement on Agriculture, the Agreement on Textiles and Clothing, and the Agreement on Subsidies and Countervailing Measures);
- Non-tariff barriers to trade (Agreement on Technical Barriers to Trade TBT –, and Agreement on Sanitary and Phytosanitary Standards – SPS);
- Trade in services (General Agreement on Trade in Services GATS);
- Government Procurement (Plurilateral Agreement on Government Procurement);
- Dispute Settlement (Understanding on Rules and Procedures Governing the Settlement of Disputes)

In addition, numerous other issues have been pressing on the trade agenda:

• Investment (Trade Related Investment Measures – TRIMS);

- Intellectual Property Rights (Agreement on Trade Related Intellectual Property Rights—TRIPS);
- Environment and sustainable development (mentioned in the WTO Preamble);
- Labour Rights;
- Human Rights
- Public Health and access to basic medicines.

Many of these issues form part of the WTO Doha Round agenda. They also arise in regional and bilateral settings. There has been an explosion of regional and bilateral trade and investment agreements in the last few years, and a slew of additional agreements is being negotiated or discussed. Among the most important existing agreements are:

- ° The North American Free Trade Agreement (NAFTA)
- ° Mercosur
- A range of bilateral negotiations, in particular between Europe and North America on the one hand, and Latin America on the other
- ° The Asia-Pacific Economic Cooperation Forum (APEC)
- ° The Euromed Agreements
- ° The Cotonou Partnership Agreement (CPA)

The experience of the European Union may be emblematic of the problems that must be confronted as economic relations between countries are liberalized. It is indicative in particular of the need to ensure that environmental disciplines are in place as markets become increasingly international.

The result is a highly complex agenda of public policy that stands at the heart of the process now known as "globalization." This agenda has put public authorities before unprecedented problems in terms of the development of international institutions and organizations. Research on this agenda is urgently needed. Yet few countries have thus far been able to marshal their scientific resources so as to bring them to bear effectively on the new issues confronting their governments.

Environmental issues have for several years been at the forefront of the interface between this broadened 'trade' agenda and the other policy areas that it affects. The reasons for this role are fairly straightforward: the links between environmental policy and trade are so close as to render the two inextricably linked. Both are quintessentially international in character; both require a high degree of international cooperation; both impact on economic development, essentially by promoting structural change. For this reason environmental policy and trade policy overlap in extremely complex ways. Sometimes trade policy

promotes environmental goals, sometimes it is contrary to them; sometimes, environmental management creates incentives for liberalization, sometimes it provides cover for protectionism.

There is an urgent need for expanded research on the 'trade and environment' agenda, to increase the understanding of the issues that are emerging and to help inform policy in this arena. The research must be international in nature, spanning developing and developed countries alike. In recent years there has been noticeable growth in expertise in developing countries in this area. There are significant opportunities for cooperation with researchers from developing countries, and a growing number of research topics that will be incompletely treated without their input.

# 3. The Survey Results

The results of the literature survey are presented below. These are useful to bear in mind if we are seeking to identify *gaps* in the current research effort, as opposed to simply themes of importance.

It is worth noting that the overall volume of research on trade and environment is quite remarkable. This is a policy issue that did not emerge onto the negotiating agenda of either trade or environmental regimes until just over ten years ago. At the same time, coverage is quite uneven and a number of new issues for research are still being added to the agenda.

The survey covered 315 items. These were broken down into subject area, and again into northern or southern authorship, and northern or southern subject focus. Annex B lists the categories into which the literature was grouped, Annex C explains those categories in some detail, and Annex D offers some brief note on methodology.

#### Southern Research

In aggregate, 30% of the research focused on the South, and 29% of the works were authored by southern researchers. There were significant departures from that average in several areas of note. Some 68% of the research on scale and structural impacts of trade on environment were focused on southern impacts, and 62% of the research in this area was conducted by southern researchers. Over half of these studies were concerned with agriculture. Agriculture being one of the greatest opportunities for many developing countries in the area of trade liberalization, and also one of the most significant sources of environmental impact, this is not surprising.

Also above average was the number of studies focused on the trade impacts in the south of environmental measures, at just under half (49%). Of these, 45% were authored by southerners. This, again, is hardly surprising, given that one of the most significant southern concerns in the trade and environment debates centres on market access, and how it might be affected by environmental measures in export markets.

Well below average, at 5%, was the number of broad legal analyses by southern authors. Also low was southern participation in studies of environmental regulatory effects of trade law and policy, at 14%. This is rather surprising, given the central importance of regulatory impacts to negotiations in areas of southern interest, such as investment, TRIPs and services. A number of studies exist on the broader development implications of curtailing regulatory ability (sometimes called policy space) through liberalization. But very few analyses focus on the environment per se.

Note that the volume of southern research is significantly affected if we withdraw from the analysis just two major IISD projects involving commissioned research (the Trade Knowledge Network Project and the China Council WTO Accession Project). Doing so reduces the percentage of Southern research in the survey from 29% to 21%. If we remove research commissioned by one other major project—the UNEP/UNCTAD Capacity Building Task Force project—the figure drops further to 18%. If our efforts to adequately survey the existing body of southern research have been more or less successful, this result indicates a notable lack of robustness to the body of southern research.

#### **Overall Research Focus**

Overall, research was heaviest in the area of institution building: analyzing or designing ways to achieve mutual support between trade and the environment. Almost a third (32%) of the research focused on this area, with most of that addressing regional approaches to trade and environment (integrating environment into regional free trade agreements), and conflicts between trade rules and MEAs. This represents a significant shift from the early days of the trade and environment debates, when most research centred testing the linkages by exploring the direct impacts of trade and trade policy on the environment, corresponding with an evident maturing of the debates.

The next most studied area was environmental regulatory impacts of liberalization, constituting just over 20% of the research conducted. Here the major interests were investment (over 9% of all research), TRIPS/biodiversity (just under 3%) and impacts on MEAs (2.6%).

Second only to investment rules in terms of research effort was research on regional trade agreements, at 8.3% of total research. This was followed by broad legal research (6.6%) and scale/structural impacts of agricultural rules and trade (5.9%).

Only 6.9% of the research surveyed focused specifically on negotiating options in the Doha mandate. Of these, the major areas of interest were environmental goods and services (1.9% of total research), and agriculture (1.8%). Given what many see as the central importance of the Doha Agenda, and the central importance attached to it by those engaged in the trade-environment debates, this is surprising. Particularly surprising is the minimal amount of research devoted to what is arguably the most directly relevant trade-environment negotiations in the Doha agenda – the relationship between the WTO and MEAs, which received a mere 0.8% of total research.

A much larger percentage of the research (41%), while not focusing directly on negotiating options, dealt more broadly with the issues *related* to the Doha negotiating agenda. (See Annex D for a listing of what is included in this "inclusive" Doha research agenda.) The hope, presumably, would be that the results of this research would still find its way into the policy-making process, by better grounding it in empirical work. The largest component of this work, at 10% of total research, is on investment rules (though note that investment is no longer considered by most to be part of the Doha agenda), looking mostly at the regulatory impacts of international investment rules. Also high is the percentage devoted to agricultural issues (8%); it was noted above that much of the research on structural and scale impacts centred on this sector. And there was a large amount of research focused on MEAs (7%), covering *inter alia* their trade impacts, and the impacts on MEAs of trade rules.

#### **Broad Observations**

The breadth and volume of current research on trade and environment, as catalogued in this survey, is all the more remarkable as the field itself is only just over a decade old. Initial research on this topic tended to focus on the major policy issues of the moment—the tuna/dolphin dispute in the WTO and the debate about the North American Free Trade Agreement (NAFTA). In particular European researchers took several years before they entered the field, although they now probably produce more of the trade and environment research than their colleagues in other regions. In the early years of the trade and environment debate, research was quite closely linked to policy debates. It now covers a significantly wider area, including topics of more theoretical or academic interest. Indeed, the growing participation of researchers based in universities—as opposed to researchers affiliated with public or private institutions that have

an active role in the formulation of policies relevant to trade and environment—is one of the more striking phenomena of recent years. It is accompanied by a steady increase in the number of studies published in peer reviewed journals or books.

# 4. A Nordic Research Agenda

Before elaborating the research agenda, it is worth noting that there are a number of important underlying trends or drivers that will necessarily shape the direction of any useful research. By changing the context in which world trade is conducted, these realities also change the research needs.

For several years the negotiating agenda on trade and environment has been evolving in both the trade and the environmental regimes. In the trade regime there are still signs of significant resistance to addressing these matters fully and constructively. In recent environmental negotiations, the trade aspects have been a significant dimension. This is true of the Biosafety Protocol to the CBD as well as the Rotterdam Convention on Prior Informed Consent (which took up an issue long debated in the GATT/WTO) and the Stockholm Convention on Persistent Organic Pollutants.

Some changes in the trade regime also have implications for research on trade and environment. The July 2004 framework agreement will give impetus to renewed negotiations in the WTO, though it is unrealistic to expect these to attain meaningful intensity any time soon, given the imminence of elections in the United States, the advent of a new EC Commission, and lingering divides over agricultural issues, among other things. It is not clear what impact the renewed momentum in the WTO setting will have on negotiations outside the WTO, in particular on bilateral negotiations and on the emergence of regional groupings. These developments pose a range of additional issues for research as they create new challenges for the trade and environment agenda but also opportunities to address more effectively environmental issues that are less than global or that require significant articulation between global and local levels.

In light of these developments it is possible to identify several factors that will serve to frame the further development of the trade and environment research agenda.

➤ The negotiation process under the Doha mandate – a key driver for much trade-environment related research.

- ➤ A continuing increase in environmental stresses, including climate change, persistent organic pollutants and other problems covered by trade-related MEAs.
- ➤ A rise in the capacity and importance of large developing country voices in the WTO system, in part hastened by the accession of China and evidenced inter alia by the formation of the G20.
- ➤ The increasing evidence of divergence of the interests of the large and small developing countries in the WTO negotiations.
- ➤ The proliferation of bilateral and regional agreements on trade and traderelated issues.
- ➤ The increasing importance of foreign direct investment in the development strategies of developing countries.
- ➤ The increased role of the private business sector as an actor (for better or for worse) in the pursuit of sustainable development.
- ➤ A changing balance between official development assistance (ODA) and liberalization of international markets, with the share of ODA as a proportion of resources available to developing countries continuing to decline.
- ➤ The changing role of (international) civil society and the impact of a continuing push for democratization.
- ➤ The linking of trade policy to broader policy aims of the major developed countries.
- ➤ The evolving UN system, under the impact of tensions between members of the Security Council and the need to respond to a global agenda that continues to expand.

These drivers have implications that can be broken down into five broad headings, all of which of necessity have some overlap:

- Research linked to the Doha negotiations;
- Developing country research;
- Research on regional and bilateral developments;
- Regulatory reform, in particular reform of environmental policies;
- Policy research on WTO issues; and
- "Bigger picture" research.

The research agenda that follows is drawn from these thematic areas. It also respects the findings of the literature survey, described above, by skirting those issues on which there is already a great deal of research energy being expended.

The Nordic countries face a number of particular challenges in developing a Nordic agenda on trade a d environment.

- ➤ The majority of Nordic countries are now members of the European Union, although only Finland is part of the euro-group. EU membership remains itself an issue that requires policy research, and the trade policy agenda is particularly affected by this membership.
- ➤ The Nordic countries all have a limited research base on which to draw.
- ➤ Publication in the Nordic languages is essential to support the domestic policy debate; yet such publications do not normally enter the international debate. English has become the language in which the trade-environment debate is developed; while knowledge of English is universal among the relevant Nordic researchers, the need to publish in more than one language exacts a certain penalty. Translation is not an option.
- ➤ The expansion of the EU leaves few countries in Europe outside its embrace; Norway (together with Switzerland) consequently plays a unique role in the trade regime,

The challenge is to identify issues on which Nordic researchers have comparative advantage and to develop mechanisms to promote synergy in the research effort.

# 4.1 Research Linked to the Doha Negotiations

There are a number of areas of environmental interest under negotiation in the Doha Development Agenda, extending well beyond the environmental issues covered in paragraphs 31 – 33 of the Doha Declaration. There is an unmet need, as revealed in the survey, to address the issues of the negotiations in the context of their environmental impacts. This type of policy research has obvious and important implications for the Members as they craft their negotiating positions. Suggested areas of research include:

Multilateral Environmental Agreements. The survey showed a great deal of research centred on the conflicts between WTO law and the environmental regimes embodied in the MEAs. But it showed surprisingly little research done on the desirable options available for the outcome of the current mandated negotiations on the interface of these two bodies of law. Given the potential for outcomes that would exacerbate the potential conflicts between trade and environmental objectives, the need for research in this area is compelling.

Agriculture: As with MEAs, the survey revealed a great deal of energy devoted to analyzing the linkages between agriculture, trade and the environment. But it turned up very little devoted to the question: what would an environmentally friendly Agreement on Agriculture look like? Much of the analysis currently generated focuses rightly on the development implications of the likely

outcomes. But the missing element is solid analysis of the environmental implications, particularly given the importance of agricultural practices for the state of the environment world wide.

Non-Agricultural Market Access: This area of the negotiations has been something of a sleeper. Stalled waiting for progress on agriculture, it is only with the delivery of the July framework that work in this area can begin with any energy. But the issues treated in these negotiations have huge and unexplored environmental implications, from the scale and structural impacts of tariff reduction to the potential for talks on non-tariff barriers to weaken domestic level capacity for environmental management.

### 4.2 Developing Country Research

One of the conclusions from the survey of existing research efforts was that southern researchers and southern research topics are underrepresented, and that the existing body of southern research depends disproportionately on a few large projects involving commissioned work. Given the underlying dynamic noted above—that large developing countries are assuming ever stronger voices in the WTO, and that the interests of large and small developing countries are in some cases diverging—and the dramatic need for sustainable development in those countries, this is arguably an area where greater research efforts need to focus. Suggested areas of research include:

The impacts of liberalization: The survey showed a great deal of this type of research already being done, but almost all of it is concentrated in the areas of scale and structural impacts, and most of that in the agricultural sector. There is a need for more research of this type, more broadly cast. Areas of need include the impacts of potential agreements on investment and services on governments' ability to regulate. More is also needed in the area of environmentally preferable goods and services. And finally, even in the case of structural and scale impacts more could be done. What, for example, are the expected environmental impacts in China of the end of the Multifibre Agreement (MFA), when it is predicted that Chinese cotton imports will surge tremendously together with much increased textile exports? What types of environmental impacts might we expect to see in developing countries in response to real reductions in subsidies for Northern agricultural producers, and how are they liable to be distributed?

**Research on capacity building:** Capacity on trade issues in developing countries will co-evolve with their strengthened voices in the WTO. It is therefore an important factor in promoting sustainable development in those countries. The central role of capacity building has been recognized in the Doha Declaration but

the traditional WTO model of capacity building is narrower than what is needed. There is an urgent need to discover what makes capacity building effective, and the survey indicates almost no research effort in this area. Effectiveness here means enabling policy makers to better identify and promote their national interests in a global framework and to participate effectively in international negotiations. For many developing countries the identification of global public goods represents a major challenge, let alone participation in international processes designed to secure them. What models work in what circumstances? What principles should guide efforts at capacity building?

Operationalizing special and differential treatment: WTO members have long recognized the need for special and differential treatment for developing countries, but it is also widely recognized that the current models have failed. How can we construct a SDT that actually takes account of the needs and abilities of the receiving states, reflecting the wide range of economic conditions in these countries? There may be a need to allow developing countries the same type of policy space that was allowed developed countries when they were less developed. In this research effort, the policies and practices of non-WTO institutions such as the World Bank and the IMF or UNCTAD will also have to be considered, as they can have significant impacts on policy space. Research in this area was practically non-existent in the survey.

What are the prerequisites to sustainable gains from liberalization? Despite the liberalization that has occurred in the recent decades—both multilateral and unilateral—many developing countries have not increased their share of world trade or come closer to sustainability. Foreign direct investment is very unevenly distributed. Even countries that have had economic success in the global competition for FDI and export markets have not thereby achieved anything resembling sustainable development. There is a need for research that explores what institutions and conditions—both at the domestic and international levels—will allow countries to most successfully exploit the opportunities provided by the liberalization of trade and opening to investment. The possible means by which those institutions and conditions might be fostered is also an important line of research. These questions, like a number of the questions posed in this research agenda, are as much development-oriented as they are environment-oriented.

#### 4.3 Research on Regional and Bilateral Developments

Many analysts attribute the recent explosion in trade negotiations at the regional and bilateral levels to the failure of multilateralism evidenced by the collapse of the WTO's Cancun Ministerial in September 2003. But the trend to accelerated

regionalism had begun well before that. Such agreements are subject to less public scrutiny and have received notably less attention from researchers. While the survey shows that some regional agreements—the NAFTA and the proposed FTAA in particular—have generated a steady stream of research, others such as the Andean Pact, the US bilaterals and the African groupings have been virtually ignored. Mercosur and the Asia Pacific Economic Cooperation Forum (APEC), ASEM or ASEAN and the 10+1 (ASEAN plus China) negotiations occupy an intermediate position. Bilateral agreements are so numerous, and exhibit such variation, that it is very difficult to identify salient trends, just as it is almost impossible to follow each of the agreements to assess its significance. Almost invariably, bilateral investment agreements have been concluded with sparse public debate and correspondingly little research.

Developments in regional agreements. Regional agreements have become the most dynamic sector of world-wide trade negotiations. Several significant negotiations are currently under way, including the Free Trade Area of the Americas (FTAA), plans to consolidate Mercosur and the Andean Pact, the 10+1 negotiations in Asia, as well as negotiations between the European Union and Mercosur and its Mediterranean neighbours and between the United States and the Southern African Customs Union (SACU). Two overlapping agreements exist in Central America and the Caribbean. The recently adopted Cotonou Partnership Agreement between the EU, its Member states and their African Caribbean and Pacific (ACP) partners envisages the formation of regional groupings as negotiating partners. All of these developments require research attention, focused on the "templates" being used and their environmental implications, and on the overall trends we can identify, and their political and environmental implications. A variety of regional responses to the trade and environment agenda have emerged and it will be important to develop the institutions that are appropriate to each of the emerging regional groupings.

Bilateral agreements. Bilateral agreements have long been a feature of the trade regime, but they have thus far tended to play a subordinate role. In several instances, such bilateral agreements may now emerge as a principal means of promoting liberalisation along lines that reflect the interests of the most powerful countries. The United States in particular, long reluctant to enter into many bilateral agreements, appears to have embarked on a policy of developing a network of such accords. Virtually no research has been done on the environmental impacts of such bilateral agreements. When they are concluded between highly unequal partners, as in the case of Israel, Jordan or Chile with the United States, the economic effects (and thus the environmental effects) that can be attributed to the agreements may actually be extremely modest, at least in the US or in a country like Chile that has undertaken extensive unilateral liberalization. In the partner countries there may be real impacts of the scale and

structural variety. Serious problems have been identified with bilateral investment agreements, which have proliferated in recent years, not least as a response to the failure of negotiations for a Multilateral Agreement on Investment (MAI) between members of the Organisation for Economic Cooperation and Development (OECD). Evidence is accumulating that these bilateral investment treaties (BITs) are having consequences that are far more significant, from the perspective of the environment and other non-commercial policy concerns, than expected. The BITs require a good deal more attention than they are getting, but the practical difficulties involved in this type of research are daunting, there being over 2,000 such agreements and the arbitral disputes usually being closed to public scrutiny.

Subsidiarity. Environmental regimes are characterized by subsidiarity, that is by the need to ensure the smooth working of the regime at various levels of action, from the local to the international, while seeking to keep activities at the lowest level consistent with effectiveness. Trade regimes work differently and the problem of subsidiarity has caused some difficulties as trade agreements tend to be global in orientation. These issues have received limited research attention even though they pose some difficult theoretical challenges in particular with regard to the institutions that are required to ensure the smooth operation of regimes subject to subsidiarity and their relationship to universal trade rules. This is a research concern that relates closely to the need for greater attention to regional trade agreements as a forum for environmental issues.

#### 4.4 Regulatory Reform, in Particular Reform of Environmental Policies

A step beyond assessing the impacts of trade and trade liberalization on environmental management is a body of research that asks: given those impacts, what institutional changes should occur within the environmental regimes, and in their relationship to other regimes such as the international trading system?

International Environmental Governance. The trade regime is governed by universal rules that recur over and over again in different trade agreements, in particular those concerned with non-discrimination, transparency and dispute settlement. International environmental regimes are very diverse and utilize different institutions, depending on the nature of the issues that they seek to address. The proliferation of environmental regimes is undesirable from the perspective of the trade regime; it is also seen as increasingly problematic from an environmental perspective. There are numerous proposals for international environmental governance, ranging from the creation of a World Environment Organization to modest changes to the status quo. Not all of these proposals are

driven by the trade concern but most of them have implications for the trade and environment relationship that merit more careful consideration.

Distributed governance. The trade regime overlaps more and more with numerous other international concerns, of which the environment is the most complex and has proven the most difficult to accommodate. The relationship between the WTO and other international organizations (and nongovernmental organizations for that matter), identified as important in the WTO Agreement itself, is becoming increasingly critical for the effectiveness of both trade and environment regimes. The emerging relationships can be described as "distributed governance," that is the assignment of specific roles to different organizations in a defined relationship. Yet not much research attention has been devoted to the problem of developing and managing such relationships between the WTO and other organizations effectively.

# 4.5 Policy Research on WTO Issues

Policy research is needed on the ways in which the WTO as an organization (an organization that includes the body of WTO law) could be made more capable of fulfilling its stated sustainable development objectives. This, of course, is the type of reflection that can rarely occur within the context of negotiations, which are not amenable to exploratory thinking about policy options. In fact there seems to be little capacity within the trade regime to think about these kinds of questions. Neither, the survey shows, has this kind of thinking been much done outside the WTO, though other types of institution building research have featured prominently in the overall research effort. This is essentially a research agenda that focuses on the position of the WTO within the changing structure of international governance in a time of globalization. Many areas of this type of research featured in the survey, and in fact these kinds of institutional solutions were as a group the most heavily researched of any area. But the particular suggestions presented below are, within that broad theme, sub-issues in need of further work.

Agriculture: Defining a new paradigm: Following the July Framework Agreement, the possibility has increased that the Doha negotiations will produce an agreement on agriculture. It remains uncertain, however, whether this agreement would actually benefit most developing countries, in particular the poorest and weakest among them. In the end, it seems likely that the negotiations will produce little more than another round of reducing import tariffs. This is lamentable from the perspective of developing countries that want to increase their market access, as well as from the perspective of developed countries that want to ensure that agriculture contributes to a variety of non-trade objectives. One reason might be the existing structure of the Agreement on

Agriculture, which breaks domestic support for agriculture into three categories ("boxes") in a way that offers little potential for advancing sustainable development goals. A new paradigm for negotiations is needed—one that starts by defining the goals of agriculture talks, and the practice of agriculture. These goals presumably run more broadly than simply lowering barriers to trade and increasing production. This approach would set up an entirely different negotiating structure which, broadly enough cast, could encompass such disparate but related areas as traditional knowledge, PPMs, technology transfer, food security and environmental protection.

An evolution of the TPRM: The trade policy review mechanism (TPRM) is a unique structure, created during the Uruguay Round as a proactive manner of improving trade-related practice outside the context of the dispute settlement It closely resembles international environmental policy mechanism. mechanisms in that it relies heavily on disclosure of problems to hasten their resolution. It is a model that could usefully be adapted to improve a wider range of domestic practice than just trade policy, including subsidies (a subsidies policy review mechanism, SPRM) or measures designed to foster sustainable development, as measured against a country's commitments. More incremental evolution of the mechanism might involve simply opening up the existing process to non-state actors, who could bring evidence and argue positions. Taking the goals of the mechanism at their face value, such changes should be welcomed as making the TPRM more effective (by all but the countries under review - a thorny political problem since all countries will eventually be reviewed).

Environmental Subsidies: There has been a fair amount of research on the subject of fisheries subsidies, but not as much on the subject of how the WTO might be involved in the wider process of subsidy reform as a promoter of sustainable development. Is there an advantage to a sector-by-sector approach (e.g., fisheries, cotton)? Does the basic WTO approach to subsidies serve as an adequate platform for subsidy reform? Research in this area might try to discern general principles that would guide reform efforts across a number of different sectors. An issue that has received little or no attention, but which is sure to be important in the near future, is the question of subsidies in the context of the GATS. Could we elaborate a sustainable development-promoting definition of subsidies in this area?

Governance of the WTO: The WTO was created on the foundation established by the General Agreement on Tariffs and Trade (GATT). It was one of the signal achievements of the Uruguay Round, yet the creation of the WTO left an important agenda of internal reforms untouched. Decision-making is "medieval," in the words of Pascal Lamy. The use of committees of the whole to

discuss issues over and over again has never been questioned. The culture of the WTO remains a culture of negotiation rather than that of an organization that has a central role to play in global governance in an era of globalization. Despite significant pressure from civil society and from a few member states, the agenda of transparency remains unfinished. All of these issues are critical since they affect the ability of the WTO to interact constructively with other international institutions that have a vital role in relation to sustainable development. Moreover, they impair the ability of the WTO to effectively achieve its own mandate – a mandate that in words if not in fact relates to sustainable development. Yet many of these issues have not received adequate attention from researchers, making the process of WTO reform even more difficult than it would be otherwise.

The WTO in a world of change. At least two trends cited above are changing the context in which the WTO finds itself. First, regional and bilateral agreements on trade, investment and other trade-related areas are mushrooming. It is not clear what these agreements—which typically have elements that go beyond the WTO obligations—imply for sustainable development, much less what they imply for the WTO. Both at a legal and a political level, there is a need for better understanding.

Second, it was also noted above that large developing countries are becoming an ever stronger force in the WTO. The pre-Cancun submission on agriculture, tabled as a counter to the US-EC deal and signed by Brazil, India and China among others, illustrates this well. So does the role played by India and Brazil in the five interested parties negotiations in the July 2004 framework negotiations in Geneva. What does this dynamic mean for the future of the WTO as an institution, and for trade and environment issues specifically? Will the bigger players shift the fora for decision-making elsewhere? Will the larger developing countries be "bought off" to the detriment of the smaller members? Will the WTO as an institution need to undergo fundamental change in process and/or substance?

Technology Transfer: One of the unfulfilled promises of the TRIPS agreement as well as of many environmental agreements is the prospect of technology transfer. This remains one of the most difficult and controversial of issues and research is needed to identify new avenues to promote the availability of appropriate technologies for developing countries. This is particularly significant in relation to the prospects for addressing climate change. Whether in the context of the existing regime based on the Kyoto Protocol or based on some other arrangement, reducing greenhouse gases will require a function structure for technology transfer.

#### 4.6 "Bigger Picture" Research

Some of the needed research can be classified as "bigger picture" research, because it looks at negotiations and institutions that arguably transcend the WTO and other trade regimes. Two such lines of research are identified below, neither of which received much, if any, research effort according to the survey.

An international agreement on investment. One of the trends noted above was the increasing importance of foreign direct investment in the development strategies of developing countries, and of the private sector as an actor in the pursuit of sustainable development. The WSSD partnership outcomes and the UN Global Compact are evidence of this last phenomenon, though both present a rather beatified rendition of the role of business. As well as the traditional forms of investment, more and more private investment is flowing into formerly public water infrastructure and electricity sectors in cash-strapped developing countries, with massive potential sustainable development impacts. imperative that we look beyond the narrow confines of what is possible to negotiate in the WTO on investment, to a more balanced form of international agreement that incorporates both rights and responsibilities. As well as investor protections, such an agreement might incorporate corporate codes of conduct, disclosure requirements, and other corporate responsibilities, and might affirm the right of the state to regulate. The ideal shape of such an agreement, as well as the nature of the obstacles to achieving it, are an important element of the new research agenda.

Commodity markets and sustainable development. A surprising number of issues that link trade and environment turn out to revolve around the production and trade of commodities—agriculture, fisheries, mining, or forestry. Producers of commodities compete with each other in markets that are highly contestable and sensitive to shifts in supply or demand. On the one hand, commodities are by definition extracted from the natural environment, resulting in an inescapable environmental impact. On the other hand, commodity markets are volatile and typically leave the primary producers—those with direct responsibility for most environmental impacts—as price takers. Consequently cost internalization is extremely difficult. The distance from producer to final consumer (who should theoretically pay for environmental costs) in commodity markets has been growing and the number of intermediaries to secure supply has also been increasing. Product—or value—chain analysis is emerging as an analytical tool to identify the forces that determine the environmental outcomes of commodity production and trade.

# 5. Strengthening the Impact of Research on Trade and Environment

The policy debate on trade and environment continues to evolve rapidly, so that much research on this issue has potential implications for policy. This raises the question how that research might be more effective as an agent of change – a question that engaged the IISD-convened experts group at its May 2003 Geneva meetings. Several of these lines of thought are summarized here with a view to strengthening the impact of this research. Promoting these as areas of priority action is arguably as important a task as promoting the needed areas of research as identified by the present exercise.

# Link Research to Policy and to Stakeholders.

Policy research is not research for its own sake. It assumes its full value when its results are understood by those who make the relevant policies, as well as by the wider policy community of stakeholders. So the question of how to ensure that research links to policy should be at least considered by anyone attempting to create a research agenda. This is less of a problem within the legal community, where those who make the relevant rulings will read the scholarly literature pertaining to the issues at hand. But it is a pressing problem in the area of non-legal policy research.

# A Coordinated Approach to Research.

One of the experts group members proposed a "DSM pipeline" – a mechanism for identifying the WTO disputes coming down the pipeline, and for determining what types of research might most urgently be needed by the time the disputes reached fruition. Another suggested that there should be an available pool of research funding for which the various researchers would compete. Both of these are examples of coordinated approaches to the conduct of research—an approach tested and pioneered by such efforts as the Concerted Action on Trade and Environment (CATE), a European research consortium, and IISD's Trade Knowledge Network. There are clear benefits to such collaboration and coordination—not the least of which is wider dissemination of the final results—, but there are also a number of significant difficulties in putting it together.

#### **Involve More Southern Researchers.**

Several members of the group noted the enormity of the need for research in the South, as compared to the relatively small existing effort. That need has been discussed above, in justifying a program of research devoted to Southern issues. But at the same time as we recommend the research be done, we should think about *how* it might be done. What needs to happen to change the status quo? It

has been suggested that the research network model might be a useful way to deal with scant human and financial resources, and common research problems. Such a model has been successful in other contexts (cf. the Latin American Trade Network, and the Trade Knowledge Network), but a number of useful lessons can surely be drawn from these existing efforts. While this was a relevant topic for the deliberations of the experts group, it may be less so in considering the construction of a Nordic research agenda.

#### Move from Trade and Environment to Trade and Sustainable Development.

Several members of the experts group protested that the real research needs, particularly in developing countries, are not on trade and environment, but are rather on trade and sustainable development, of which the former is a subset. This is something that IISD also believes, and is a truth that will guide our future efforts in this area. Before elaborating any Nordic research agenda, a decision must be taken on the scope of the research effort. Environment and trade is a narrower subject area, and thus operationally more approachable. But trade and sustainable development is clearly a more relevant avenue of pursuit in the long run.

# Annex A: The Experts Group

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# Annex B: Survey Categories

#### 1. Impacts of Trade, and Trade Policy

What are the environmental impacts of liberalization or, alternatively, of protection? What are the economic impacts of environment-related trade policies? What are the impacts of trade flows themselves, irrespective of liberalization?

- 1.1. Direct, product, technology impacts of trade, trade policy
  - 1.1.1. Transportation
  - 1.1.2. Invasive species
  - 1.1.3. Hazardous waste trade
  - 1.1.4. Trade in environmental goods and services (*environment and economic impacts*)
  - 1.1.5. Bulk water transfers (environmental impacts of)
  - 1.1.6. Investment flows
- 1.2. Scale, structural impacts of trade, trade policy
  - 1.2.1. Agriculture (impacts of liberalization and market distortion)
  - 1.2.2. Forest products
  - 1.2.3. Fisheries, aquaculture
  - 1.2.4. Mining
  - 1.2.5. Electricity
  - 1.2.6. Manufacturing
- 1.3. Environmental regulatory effects of trade, trade policy
  - 1.3.1. Services liberalization
  - 1.3.2. Investment liberalization
  - 1.3.3. Trade Related Intellectual Property Rights (TRIPS), in particular impacts on biodiversity
  - 1.3.4. Government procurement
  - 1.3.5. Pollution havens (question 2: if there is migration (or threat), what regulatory impacts?)
  - 1.3.6. Precautionary principle
  - 1.3.7. Process and Production Methods (PPMs)
  - 1.3.7. Labelling for environmental purposes
  - 1.3.8. MEAs (impacts of trade rules)

#### 1.4. Cross-sectoral impact assessments

#### 2. Impacts of Environmental Policy

What are the environmental and economic impacts of trade-related environmental policies?

- 2.1. Labelling for environmental purposes
- 2.2. Pollution havens (question 1: do firms migrate?)
- 2.3. Environmental measures and market access
- 2.4. Trade impacts of MEAs

#### 3. Institution Building

Given the intersection of trade and environment policy spheres, how can we build institutions that will achieve mutual support (or, at a minimum, achieve benign neutrality)?

- 3.1. WTO-MEAs
- 3.2. International environmental crime
- 3.3. Regional/bilateral trading agreements (how to do it, how it's been done)
- 3.4. Sustainability assessment of liberalization agreements
- 3.5. Transparency, public participation in trade policy making, dispute settlement
- 3.6. International Environmental governance; WEO
- 3.7. Capacity building on trade and environment
- 3.8. Standards-related regimes
- 3.9. International investment agreements
- 3.10. Green trade
- 3.11. Structural reform/issue choice within WTO

# 6. Legal Analysis

What is the relationship between trade law and the environment? What are the implications of the rulings to date?

#### 5. Economic Analysis

What methods can be used to analyze the trade and environment relationship? What results do we get from modelling?

#### 6. Analysis of Doha Negotiations

What are the various negotiating options on items of clear environmental interest?

- 6.1. Agriculture
- 6.2. Services
- 6.3. TRIPS
- 6.4. Investment
- 6.5. Competition Policy
- 6.6. Government Procurement
- 6.7. WTO Rules (Subsidies)
- 6.8. Dispute Settlement Understanding
- 6.9. WTO-MEAs
- 6.10. Environmental Goods and Services
- 6.11. Environmental Measures and Market Access
- 6.12. Labelling for environmental purposes
- 6.13. Capacity Building
- 6.14. The Role of the CTE

#### 7. Other

# Annex C: Defining the Survey Categories

The value of any literature survey lies in two main areas: first, in the thoroughness of the survey itself. The more comprehensive the survey, the better the picture given. Second, the presentation of the results is also important. There is a trade-off between the simplicity and ease of very few categories of research, and the illustrative value of a highly disaggregated list of categories. If anything, the list above errs on the side of complexity.

The advantage of complexity is that it gives a clear picture of what research questions are being asked and where research effort is being directed, allowing for subtle distinctions between areas of focus and overall approach. The disadvantage, of course, is conceptual difficulty. As well, if taken too far complexity disaggregates those research efforts that should be considered part of the same body of work.

Some explanation of the various categories is offered below. This is offered as a supplement to help make it clear why, for example, a particular piece of research on MEAs ends up, for example, under Institution Building (3.1), rather than under Impacts of Environmental Policy (2.4), Analysis of Doha Negotiations (6.9) or Broad Legal Analysis (4.0).

#### **Impacts of Trade, Trade Policy**

The categories here borrow from the OECD taxonomy of trade and environment linkages – a framework that has stood the test of time<sup>1</sup>. They are sub-divided into four areas:

*Direct, product, technology impacts*. This is research on the direct impacts of the traded products, or of the fact of trade. It does not, for example, cover analysis of the rules governing hazardous waste trade, or proposed to govern trade in environmental goods and services. Rather, it looks only at the environmental or economic impacts that such trade may engender.

*Scale, structural impacts.* These are the impacts of trade brought about by the changes that liberalization causes in the trading economies – an increase in the scale of economic activities, or in the composition of the economy as some sectors increase or decrease in relative importance.

<sup>&</sup>lt;sup>1</sup> OECD. The Environmental Effects of Trade. Paris: OECD, 1994.

Environmental regulatory effects. These are the impacts of trade agreements, rather than of trade itself. Specifically, they are the legal impacts that trade agreements have on the ability to regulate on environmental matters. Thus, for example, the research included here on labelling for environmental purposes focuses only on the impacts that trade agreements have, might have or should have on governments' ability to regulate through labelling.

Cross-sectoral impact assessments. This type of research is broadly focused at discovering the impacts, or potential impacts, of trade liberalization on an economy-wide or regional basis. This type of research, which encompasses all three types of research listed above in a single exercise, is also known as sustainability impact assessment (SIA). It has been undertaken primarily by and for national and international public agencies. It is not as common as research that focuses on sectoral effects – research covered in the categories listed above.

#### **Impacts of Environmental Policy**

This type of effect is the obverse of that described in the previous section, which looked at trade's environmental impact. It includes the various ways in which environmental policies might impact on trade flows or trade policy. Note that the research included here on pollution havens addresses the first of two questions to be addressed in that area: do firms in fact migrate (in response to environmental policy)? The second question—if so, what are the regulatory impacts?—is addressed in the previous section.

# **Institution Building**

The research here looks at the ways in which we might address conflicts between regimes for managing trade and environment. – the new institutions that we might build to create the desired mutual supportiveness. The research included here on sustainability impact assessments is strictly analysis of their effectiveness – a methodological approach. The actual exercises in assessment are grouped in section 1.4: Cross-Sectoral Impact Assessments. Similarly, the research on capacity building does not include a catalogue of existing efforts at capacity building, which is beyond the scope of this survey. Rather, it includes analyses of the methods for, need for, and effectiveness of current efforts at capacity building as an institution that can allay trade-environment conflicts.

#### **Legal Analysis**

This category of research includes analysis of trade law—as written or as elucidated through dispute settlement proceedings—aimed at better understanding the implications for environmental regulation and management.

#### **Economic Analysis**

This category of research includes *methodological* analysis of the trade-environment relationship. It includes, for example, theoretical work on the environmental Kuznets' curve, and work to help develop methodologies for economic analysis and valuation studies. The latter includes, for example, the development of methodologies for evaluating environmental and economic impacts of subsidies.

#### **Analysis of Doha Negotiations**

This specialized category includes analysis of the negotiations themselves. Specifically, it includes that body of work that seeks to evaluate the negotiation options in various areas. A more inclusive presentation of Doha-related research is offered in Annex C, where the same list of categories is more widely cast, to capture any research going on in the areas covered by the Doha Agenda, even where that research is not directly focused on the negotiations. It is important to emphasize that the environmental dimension of the Doha negotiations is not limited to the issues that are explicitly identified as "environmental" in the Doha Ministerial Declaration. They already represent a challenging agenda, including the relationship to MEAs, prospects for preferential treatment of environmental goods and services, the relationship between the Agreement on Trade Related Intellectual Property Rights (TRIPS) to the Convention on Biodiversity (CBD) and fisheries subsidies. Yet several other major issues on the Doha agenda also deserve attention from an environmental perspective, in particular agriculture and investment.

# Annex D: Categories in the "Inclusive" Doha Research Agenda

One of the categories of research surveyed is work focusing on negotiating options for the Doha Development Agenda. The analysis of survey results also makes some observations about a broader grouping, which also includes research *related* to the items on the Doha agenda, but which may not focus directly on the negotiations themselves. This annex lays out how this broader definition of Doha-related research is defined in the analysis.

#### Agriculture:

- 1.2.1: Scale, structural impacts of trade, trade policy, agriculture
- 6.1: Analysis of Doha negotiations, agriculture

#### Services:

- 1.3.1: Environmental regulatory effects of trade, trade policy, services liberalization
- 6.2: Analysis of Doha negotiations, services

#### TRIPS:

- 1.3.3.: Environmental regulatory effects of trade, trade policy, TRIPS (esp. impacts on biodiversity)
- 6.3: Analysis of Doha negotiations, TRIPS

#### Investment:

- 1.3.2: Environmental regulatory effects of trade, trade policy, investment liberalization
- 3.9: Institution building: international investment agreements
- 6.4: Analysis of Doha negotiations, investment

#### Competition Policy:

6.5: Analysis of Doha negotiations, competition policy

#### Government Procurement:

6.6: Analysis of Doha negotiations, government procurement

#### WTO Rules (Subsidies):

6.7: Analysis of Doha negotiations, WTO rules

#### Dispute Settlement Understanding:

6.8 Analysis of Doha negotiations, DSU

#### WTO-MEAs:

- 1.3.8.: Environmental regulatory effects of trade, trade policy, MEAs (impacts of trade rules)
- 2.4: Impacts of environmental policy: trade impacts of MEAs
- 3.1: Institution building: WTO-MEAs
- 6.9: Analysis of Doha negotiations, WTO-MEAs

#### Environmental Goods and Services:

- 1.3.1: Environmental regulatory effects of trade, trade policy, services liberalization
- 6.10: Analysis of Doha negotiations, Environmental goods and services

#### **Environmental Measures and Market Access:**

- 2.3: Impacts of environmental policy: environmental measures and market access
- 6.11: Analysis of Doha negotiations, environmental measures and market access

#### Labelling for environmental purposes:

- 1.3.7: Environmental regulatory effects of trade, trade policy, labelling for environmental purposes
- 2.1: Impacts of environmental policy: labelling for environmental purposes
- 6.12: Analysis of Doha negotiations, labelling for environmental purposes

# Capacity Building:

- 3.7: Institution building: capacity building on trade and environment
- 6.13: Analysis of Doha negotiations, capacity building

# The Role of the CTE:

6.14: Analysis of Doha negotiations, the role of the CTE

# Annex E: Brief Notes on the Survey Methodology

The basis of the research agenda presented here is an extensive survey of over 300 recent research publications produced in the last two years on the subject of trade and environment. This survey was not, of necessity, exhaustive, the goal being to be comprehensive enough to give a reasonable idea of the level of effort being devoted to the various themes in the area of trade and environment. The first insight of this project has, however, been, that the past years have seen a veritable explosion of research on trade and environment, with contributions from a wide range of countries, both developed and developing.

While much of the recent literature is in English, which has become the lingua franca of environmental policy research, a number of important contributions are only available in other languages. An effort has been made in the final iteration of the literature search to reach at least the most important contributions in the major western languages.

The scope of this survey is limited to trade and environment, rather than trade and sustainable development. That is, research that involves trade, environment and development is covered, but research covering trade and development alone is not. There is, for example, no coverage of the research that focuses on the development box in the agricultural negotiations at the World Trade Organization (WTO). This is for two principal reasons: first, environment is a crucial subset of the wider sustainable development focus; moreover environmental issues have been the driving force behind discussions of sustainable development in the trade regime and have resulted in a range of very concrete institutional changes and negotiating strategies. Taking on the challenge of identifying a full trade and sustainable development agenda would be a daunting task, well beyond the means of this project.

A broad definition of research is used. Any work that advances our thinking in the areas of trade and environment is included, whether or not it involves empirical research. The emphasis is on original contributions to the debate. This type of coverage should be understood to be a *proxy* indicator of research effort, given that it does not consider programs of work in areas of interest, but only publications.

Similarly a broad definition of "publication" is used, including release on the web, circulation of materials under an institutional imprint, or publication in a peer reviewed journal. A significant portion of the documents listed appeared in major peer reviewed journals.

The common meaning of "trade," as that which is covered by trade agreements such as the WTO is, for better or for worse, adopted here. In other words, trade policy is understood to cover not only trade in goods and services, but also investment, intellectual property rights, government procurement and so on. The institutions of trade, such as the WTO dispute settlement mechanism, are also covered. The survey does not focus specifically on the work of the Committee on Trade and Environment (CTE) of the WTO. While the agenda of the CTE is in principle comprehensive, its debates and the accompanying WTO Secretariat research have been quite narrowly focused. This tendency has been reinforced by the Doha Ministerial Declaration, which assigns paragraphs 31 and 32 to the CTE in Special Session (CTESS) for negotiation. The numerous other issues of environmental issues that are to be found in the Doha Declaration, let alone trade and environment issues not covered by the Declaration, would not be adequately addressed if the CTE were taken as focus.

This survey does not adopt a particular definition of "environment." It consequently covers any article that considers itself to be addressing the trade and environment interface, including articles on the beef hormone dispute, which could reasonably be viewed as a matter of consumer protection rather than relating to environmental management. In other words the survey takes a relatively pragmatic approach.

The coverage is restricted to recent research, defined as that research published after January 1, 2002. The survey having been conducted in August 2003, it does not include items published since that date. There is, of course, a rich body of research preceding the period chosen, but the idea is to give a picture of where current research efforts are focussed.

At over 300 items, the survey is comprehensive, but not exhaustive (even a few minor IISD publications are not on the list). There is, however, a diminishing return to the energy needed to add more items. The analysis that is possible with the existing data is not likely to be much changed by the addition of more items – what we did catalogue is in its broad mix probably a good representation of the total body of recent work.

It turns out that it is not easy to determine whether a given researcher is Northern or Southern. A significant number of "Northern" publications include contributions from "Southern" authors. In such cases of joint authorship the research was tabulated as half a research product by each of Northern and Southern researchers. There was also some difficulty in labelling, for example, a researcher born in the South but now living and working in the North. In most such cases the researcher was considered a "Southerner."