

Trade-related Measures and Multilateral Environmental Agreements

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United Nations Environment Programme

The United Nations Environment Programme (UNEP) is the overall coordinating environmental organization of the United Nations system. Its mission is to provide leadership and encourage partnerships in caring for the environment, by inspiring, informing, and enabling nations and people to improve their quality of life without compromising that of future generations. In accordance with its mandate, UNEP works to observe, monitor, and assess the state of the global environment; improve the scientific understanding of how environmental change occurs; and in turn, determine how such change can be managed by action-oriented national policies and international agreements. UNEP's capacity building work thus centres on helping countries strengthen environmental management in diverse areas, which include freshwater and land resource management; the conservation and sustainable use of biodiversity, marine and coastal ecosystem management; and cleaner industrial production and eco-efficiency, among many others.

UNEP, headquartered in Nairobi, Kenya, marked its first 30 years of service in 2002. During this time, in partnership with a global array of collaborating organizations, UNEP achieved major advances in the development of international environmental policy and law, environmental monitoring and assessment, and our understanding of the science of global change. This work also supports the successful development and implementation of the world's major environmental conventions. In parallel, UNEP administers several multilateral environmental agreements, including the Vienna Convention's Montreal Protocol on Substances that Deplete the Ozone Layer, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the Cartagena Protocol on Biosafety to the Convention on Biological Diversity, and the Stockholm Convention on Persistent Organic Pollutants.

Division of Technology, Industry and Economics

The mission of the Division of Technology, Industry and Economics (DTIE) is to encourage decision makers in government, local authorities and industry to develop and adopt policies, strategies, and practices that are cleaner and safer, make efficient use of natural resources, ensure environmentally sound management of chemicals, and reduce pollution and risks for humans and the environment. In addition, it seeks to enable implementation of conventions and international agreements and encourage the internalization of environmental costs. UNEP DTIE's strategy in carrying out these objectives is to influence decision-making through partnerships with other international organizations, governmental authorities, business and industry, and non-governmental organizations; facilitate knowledge management through networks; support implementation of conventions; and work closely with UNEP regional offices. The Division, with its Director and Division Office in Paris, consists of one centre and five branches located in Paris, Geneva and Osaka.

Economics and Trade Branch

The Economics and Trade Branch (ETB) is one of the five branches of DTIE. Its mission is to enhance the capacities of developing countries and transition economies to integrate environmental considerations into development planning and macroeconomic policies, including trade policies. ETB helps countries develop and use integrated assessment and incentive tools for achieving poverty reduction and sustainable development. The Branch further works to improve our understanding of environmental, social, and economic effects of trade liberalization and the effects of environmental policies on trade, and works to strengthen coherence between Multilateral Environmental Agreements and the World Trade Organization. Through its finance initiative's unit, ETB also helps enhance the role of the financial sector in moving towards sustainability.

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Executive Summary

Since the early 1990's, clarifying the relationship between trade rules and Multilateral Environmental Agreements (MEAs) containing trade-related provisions has been at the forefront of international trade and environment discussions. In 2001, these discussions culminated in a decision by trade ministers to include negotiations on the relationship between WTO rules and "specific trade obligations" set out in MEAs in the WTO Doha Ministerial Declaration. The stated aim of these negotiations is to enhance the mutual supportiveness of trade and the environment. Despite this laudable objective, progress in the negotiations has been limited to date.

The objective of this paper is to contribute to ongoing negotiations at the WTO by analyzing MEA trade-related measures in the context of the overall objective of the MEAs. In particular, the paper provides a detailed review of the main provisions and specific trade-related measures found in six "core" MEAs, which are the MEAs most frequently identified in the WTO as relevant to the negotiations. These include the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Montreal Protocol on Substances that Deplete the Ozone Layer, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Cartagena Protocol on Biosafety, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, and the Stockholm Convention on Persistent Organic Pollutants.

The paper begins by highlighting several of the common principles and characteristics found in the six MEAs, such as the recognition that international cooperation is preferable to unilateral action when addressing global environmental challenges. MEAs also reflect an acknowledgement that any global response must take into account the different contribution of countries to the causes of environmental problems and their capacity to resolve them. Finally, MEAs, unlike many other treaties, are driven and updated by the latest scientific thinking and discoveries, and generally have the widespread support of the international community.

The paper then explores the linkage between trade and environment and the role the trade-related measures incorporated in MEAs play in responding to this relationship. As has been noted in the WTO negotiations, the wide variety of trade-related measures in MEAs reflects the diverse environmental concerns they were designed to address. The paper identifies the different functions inherent to trade-related measures in MEAs. For example, some MEAs aim at regulating trade flows in certain species of animals and plants in order to support their survival. Others have the goal of regulating trade in environmentally hazardous products or goods in order to ensure that the risks to human health and the environment related to trade in these products are adequately addressed. Still other trade-related measures aim at avoiding free-riders and providing a level playing field, or they assist with enforcement and compliance.

Trade-related Measures and Multilateral Environmental Agreements

The paper concludes that any adequate classification of trade-related measures should be developed in a manner that takes into account the particular context of each MEA, and the paper recommends a framework for considering trade-related measures in reference to the functions they perform. Finally, the paper recalls that MEAs have numerous features that contribute not only to their own effectiveness but also support international trade rules, moving towards more objective, science-based, and standardized approaches in addressing shared environmental and health concerns.

Acronyms and Abbreviations

AIA Advance informed agreement

CBD Convention on Biological Diversity

CIEL Centre for International Environment Law

CITES Convention on International Trade in Endangered Species of Wild Fauna and Flora

CTESS Special Session of the WTO Committee on Trade and Environment

CFCs chlorofluorocarbons

COP Conference of the Parties EC European Commission

FFP food, feed or for processing
GEF Global Environment Facility

IISD International Institute for Sustainable Development

LMOs living modified organisms

MEAs Multilateral Environmental Agreements

MOP Meeting of the Parties

NGO Non-governmental Organisation
NBFs national biosafety frameworks
ODS ozone-depleting substances

OECD Organisation for Economic Co-operation and Development
UNCTAD United Nations Conference on Trade and Development

UNEP United Nations Environment Programme

WTO World Trade Organization

I. Introduction

Growing global interdependencies, both economic and environmental, increase the need for coherence and coordination in trade and environmental policies, rules, and institutions. As international rules in both the trade and environmental fields increase in geographic and substantive scope, promoting the complementary functioning and implementation of these sets of rules is crucial to achieving sustainable development objectives. As noted by trade ministers at the Fourth Ministerial Conference of the WTO, held in Doha in November 2001, "an open and non-discriminatory multilateral trading system, and acting for the protection of the environment and the promotion of sustainable development can and must be mutually supportive."

Maximizing the synergies between multilateral environmental agreements (MEAs) and the rules of the World Trade Organization (WTO) is particularly important in this regard. With a view to enhancing the mutual supportiveness of trade and environment, WTO Members are thus currently engaged in negotiations, pursuant to paragraph 31(i) of the Doha Ministerial Declaration, on:

"the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements (MEAs). The negotiations shall be limited in scope to the applicability of such existing WTO rules as among parties to the MEA in question. The negotiations shall not prejudice the WTO rights of any Member that is not a party to the MEA in question."

The relevance of the relationship between MEAs and WTO rules for enhancing mutual supportiveness of environment and trade has been clearly reflected in these negotiations. Indeed, over thirty submissions have been put forth on paragraph 31(i) since 2002. Nevertheless, progress has been limited due to fundamental divergences in relation to approach and interpretation of the terms of the above-mentioned mandate.³ In particular, significant discussions have taken place in relation to the various types of trade-related measures established in a number of MEAs, and how these measures may qualify as "specific trade obligations" for the purposes of the negotiations.

Another critical element in enhancing mutual supportiveness is promoting the interaction and exchange of information between trade and environmental communities. The Doha Ministerial Declaration emphasizes the need for regular information exchange between trade and environmental institutions. Paragraph 31(ii)

¹ See United Nations Environment Programme (UNEP), "Capacity Building on Environment, Trade, and Development: Trends, Needs and Future Directions." Discussion Paper prepared for the UNEP Workshop on Capacity Building on Environment, Trade, and Development, 19-20 March 2002, Geneva.

² WTO Doha Ministerial Declaration, WT/MIN(01)/DEC/1, paragraph 6.

³ For an overview of the progress made in the trade and environment negotiations under Paragraph 31(i) of the Doha Ministerial Declaration up to the time of the Hong Kong Ministerial Conference, *see* the "Report by the Chairperson of the Special Session of the Committee on Trade and Environment to the Trade Negotiations Committee," 28 November 2005, TN/TE/14.

mandates negotiations on "procedures for regular information exchange between MEA Secretariats and the relevant WTO committees, and the criteria for the granting of observer status." Several WTO delegations have noted that information exchange can have a positive spillover on Paragraph 31(i), in terms of reducing the risk of conflict between the WTO and MEAs. Finally, the Doha Ministerial Declaration also underlined the importance of capacity building with respect to the trade and environment policy interface and explicitly welcomed cooperation with UNEP.5

UNEP similarly recognizes the essential need to build capacities on trade and environment issues. It considers that capacity building enhances the participation of countries in the further development of MEAs, and likewise, provides for more effective trade negotiations. In 2001, the UNEP Governing Council established a mandate to "promote understanding, dialogue and the dissemination of information about multilateral environmental agreements, including any trade-related measures, *inter alia*, to develop capacity to ensure that trade and environmental policies are mutually supportive. In light of this, UNEP has facilitated a cooperative process of research and multi-stakeholder meetings, including a series of meetings between the Secretariats of various MEAs and the WTO, which also involved governments, other intergovernmental organizations and non-governmental organizations (NGOs). UNEP also provides technical support to MEAs regarding the implications of the trade rules and the relevance of ongoing trade negotiations to their implementation. Moreover, UNEP, often jointly with MEAs, prepares background papers and notes to contribute to ongoing discussions on these issues. UNEP

The present note, a part of UNEP's capacity building work, is intended to inform ongoing discussions on trade-related measures in MEAs taking place in the Special Session of the WTO Committee on Trade and Environment (CTESS). MEAs do not refer to "specific trade obligations," "trade measures," or "trade-related measures," although this language may be used informally in discussions surrounding the agreements. Nevertheless, MEAs do include specific substantive or procedural provisions that may require or encourage Parties to restrict, regulate or otherwise condition international trade as part of the package of instruments contained to achieve their objectives. These provisions are the focus of this note.

⁴ Despite the lack of agreement by WTO Parties on the issue of observer status, the Special Session of the Committee on Trade and Environment (CTESS) has invited six MEAs and UNEP to participate, on an ad hoc basis, in its meetings. *See* "Report of the Chairperson of the CTE Special Session to the Trade Negotiations Committee," 15 July 2003, TN/TE/7 and Suppl.1.

⁵ See supra note 2.

⁶ See "Background Paper on Trade and Environment," prepared by the UNEP Executive Director for Consideration by the Plenary at the Twenty-Second Session of the Governing Council/Global Ministerial Environment Forum, 31 December 2002, UNEP/GC.22/10/Add.2.

⁷ See supra note 1.

⁸ UNEP, Twenty First Session of the Governing Council (2001), Decision 21/14, paragraph 4(c) (http://www.unep. org/GC/GC21).

⁹ See, e.g., "Multilateral Environmental Agreements and the WTO: Building Synergies." UNEP Briefs on Economics, Trade and Sustainable Development Information and Policy Tools, May 2002 (http://www.unep.ch/etu/publications/UNEP MEA.pdf).

¹⁰ Publications of the UNEP Economics and Trade Branch are available at: http://www.unep.ch/etb/.

¹¹ The use of these terms in this paper, therefore, as well as of other terms such as "multilateral environmental agreement," is not intended to evince a view by the authors or UNEP on the meaning or appropriateness of these terms or on the way they should be used or interpreted in multilateral fora.

¹² In this regard, these provisions should be distinguished from the environmental measures in MEAs that, while not trade-related, may have secondary trade effects. For example, the mandatory targets for reducing greenhouse gas emissions established by the Kyoto Protocol are not directly linked to trade, but the actions of countries implementing the Protocol may have trade implications.

In particular, the present note focuses on six MEAs – selected in light of their prominence and their direct or indirect consideration in the WTO, the United Nations Conference on Trade and Development (UNCTAD), the Organisation for Economic Co-operation and Development (OECD), and other international fora. These MEAs are the:

- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);
- Montreal Protocol on Substances that Deplete the Ozone Layer (the Montreal Protocol);
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (the Basel Convention);
- · Cartagena Protocol on Biosafety;
- Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (the Rotterdam Convention); and
- Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention).

After this Introduction, Section II of the note explains the increasing international significance of MEAs and highlights several of their common principles and characteristics. Section III discusses the relationship between trade and environment and the role of MEA trade-related measures in responding to this relationship. This is followed by a review of the overall objectives, the main provisions, and specific trade-related measures found in the six MEAs noted above. Next, Section IV provides a summary of some of the common elements and functions of the trade-related measures found in the MEAs, and finally, Section V finishes with some closing thoughts on the relevance of all these points for negotiations under Article 31(i) of the Doha Ministerial Declaration.¹³

¹³ It should be noted that, as the aim of this note is to serve as an informational and capacity building tool to enhance the mutual supportiveness of trade and environmental policies, it does not reach any conclusion or prescribe any particular approach in relation to WTO negotiations.

II. MEAs - Their Role, Importance and Approach

The importance of international cooperation across a diversity of topics is increasingly recognized.¹⁴ An ever more interconnected world demands multilateral approaches to trade, security, migration, and a host of other issues. In the environmental context, in particular, there is an appreciation that environmental degradation is often a global problem and, as such, requires global responses. The depletion of the ozone layer, the loss of biodiversity, and the spread of persistent organic pollutants, for instance, result from human activity in countries around the world and have impacts that extend far beyond national borders. As a result, domestic conservation and environmental management strategies alone are insufficient to conserve shared natural resources and safeguard the global ecosystem. International cooperation is not only fundamental; it has also been recognized as the best and most effective way for governments to tackle transboundary or global environmental problems.¹⁵

In this context, the need for MEAs will likely continue to grow. ¹⁶ MEAs offer a framework for collectively addressing environmental problems on the basis of policy consensus and science. In addition, as environmental challenges become more and more complex, MEAs increasingly provide a comprehensive approach to effectively and equitably deal with those challenges. Thus, most MEAs include a broad range of provisions that take into account issues such as: the lack and inadequacy of data and other information; the need for broad stakeholder participation; the different levels at which countries have contributed to the problem and can contribute to the solution; and the need for incentives to take action. ¹⁷ In addition to addressing environmental problems, many of the measures contained in MEAs also have positive social and economic impacts. For example, the harmonization of standards and practices encouraged by many MEAs is designed to enhance environmental protection, but may also have positive effects on trade and the economy by avoiding trade distortions, facilitating the technical and legal implementation of standards and technical regulations, and assisting consumers in their decision-making. ¹⁸

¹⁴ The United Nations Millennium Declaration, adopted by the UN General Assembly in 2000, recognized that, in addition to States' separate responsibilities to their individual societies, there is a collective responsibility for managing worldwide economic and social development, as well as threats to international peace and security, and that such responsibility should be exercised multilaterally.

¹⁵ See, e.g., the Johannesburg Declaration on Sustainable Development at the World Summit for Sustainable Development, September 2002. This has also been recognized in the trade context, see, e.g., the "Report of the WTO Committee on Trade and Environment to the Singapore Ministerial Conference," 12 November 1996, WT/CTE/1 (CTE Singapore Report).

¹⁶ There is no agreed definition of an "MEA" in general, though UNEP has developed working definitions for certain projects. For instance, in the context of *Environment and Trade: A Handbook*, MEAs were defined as environmental agreements with more than two parties. For the purpose of the present note, a definition is not required, as the six selected environmental agreements are widely recognized as MEAs.

¹⁷ Diverse types of measures in selected MEAs are analyzed in Section III below.

¹⁸ See Stevens, Candice, "Harmonization, trade and the environment," *International Environmental Affairs* 5 (1): 42-49 (1993).

Although each MEA contains a framework designed to respond to a unique set of environmental problems, MEAs share a number of common principles and characteristics. These commonalities arise from various factors, including the tendency of States to use and build on their previous experience in developing MEAs. For example, MEAs negotiated post-1987 tend to draw on the experience of the Montreal Protocol and adopt similar compliance mechanisms. Other shared features find their origin in general international law, such as the principle of common but differentiated responsibilities.

The principle of common but differentiated responsibilities is elaborated, *inter alia*, in Principle 7 of the Rio Declaration:

"States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command."

In light of the principle of common but differentiated responsibilities, MEAs seek to address environmental problems in a balanced and equitable manner, acknowledging the different contribution of countries to the causes of environmental problems and their diverse capacities to resolve them. To accomplish this, each MEA contains different sets of measures intended to complement and support each other, typically with provisions establishing regulatory parameters. Some MEAs provide for less stringent measures or longer compliance timeframes for developing countries. For example, the Stockholm Convention, appreciating that some of the chemicals it covers are still widely used in developing countries, allows "specific exemptions" to enable the elimination of production and use over time, as substitutes are phased in. Other MEAs emphasize provisions for capacity building and technological and financial assistance. The Basel Convention, for instance, provides for regional or sub-regional centers for training and technology transfer. By attempting to give full consideration to principles such as equity and common but differentiated responsibilities, MEAs promote participation and effective international cooperation.

Several other characteristics are intrinsic to and thus widely shared by MEAs. For example, MEAs are driven by science, thus contributing to the identification and analysis of global environmental problems, as well as the development of appropriate solutions.²² The impetus for the Montreal Protocol, for instance, resulted largely from the mounting scientific data about the decreasing concentration of ozone in the stratosphere and the role of certain chemicals in the process.²³ That scientific data also provided the basis for the Montreal Protocol's coverage, control measures and phase-out schedules. In addition, the Montreal Protocol has been adjusted and amended to take account of new information about the extent and scope of

¹⁹ See Stockholm Convention, Articles 3 and 4 and Annexes A and B.

²⁰ See Basel Convention, Article 14. Basel Convention Regional Centers for Training and Technology Transfer are currently operational in Africa and West Asia (centers located in Egypt, Nigeria, Senegal and South Africa), Asia and Pacific (centers located in China, Indonesia and Samoa), Latin America and Caribbean (centers located in Argentina, El Salvador, Trinidad and Tobago, and Uruguay), and Central and Eastern Europe (centers located in Slovak Republic and Russian Federation).

²¹ See, e.g., Report of United Nations Commission on Trade and Development (UNCTAD) Trade and Development Board, Commission on Trade in Goods and Services, and Commodities, "Positive Measures to Promote Sustainable Development, Particularly in Meeting the Objectives of Multilateral Environmental Agreements," TD/B/COM.1/EM.3/2, 25 August 1997.

²² See Hunter, David et al, International Environmental Law and Policy, (1998), 273.

²³ See Benedick, Richard, Ozone Diplomacy, (1991), 9-19.

stratospheric ozone depletion, as well as the development of alternative technologies and the availability of new sources of financing.²⁴ Science thus underpins MEAs, providing the evidence on which they are built and further developed. Moreover, science provides the basis for common standards and policies with other treaties containing provisions related to human health and environmental risks, which enables positive coordination.

Another noteworthy characteristic is the careful tailoring of each MEA to address a particular set of environmental issues. Each measure contained in a MEA is crafted with the aim of effectively achieving its environmental objectives. CITES, for instance, which aims to ensure that international trade in specimens of wild animals and plants does not threaten their survival, recognizes the need to complement conservation efforts with support for responsible trade in wildlife.²⁵ Sustainable trade in wild fauna and flora is key to building support for conservation among local communities and can contribute to raising funds for protecting species of concern.²⁶ CITES also acknowledges the importance of capacity building for developing countries to monitor and control both wildlife trade and wildlife populations. In a similar manner, other MEAs also include measures designed to complement each other in achieving their environmental goals.

Finally, MEAs share the characteristic of having the widespread support of the international community. CITES, the Montreal Protocol, the Convention on Biological Diversity, and the Basel Convention, among others, all have 170 or more Parties. Ratifications for more recently adopted MEAs continue to increase.²⁷ Wide membership is crucial to achieving a number of environmental objectives.²⁸ The negotiation and design of MEAs focus on encouraging a large participation and high levels of implementation in several ways. First, an open and transparent process of negotiation allows States to develop a sense of ownership and commitment to new norms.²⁹ Second, the shared characteristics of MEAs, including those discussed above, contribute to the wide support for these instruments: subjecting different players to different responsibilities, tailoring measures to specific environmental challenges and relying on science as the basis for the development, and continuous improvement of the rules through Conference of the Parties' negotiations are essential to maintaining commitment to MEAs.³⁰

²⁴ See, e.g., the London Amendment, adopted in 1990, the Copenhagen Amendment, adopted in 1992, and the Beijing Amendment, adopted in 1999 introduced, *inter alia*, control measures regarding new groups of substances.

²⁵ See, e.g., Resolution Conf. 8.3 (Rev. COP13) of CITES, for instance, which states that the sustainable use of wild fauna and flora, whether consumptive or non-consumptive, provides an economically competitive land-use option and that, unless conservation programmes take into account the needs of local people and provide incentives for the sustainable use of wild fauna and flora, conversion to alternative forms of land use may occur. In addition, Resolution Conf. 13.2 (Rev. CoP14) urges Parties to make use of the *Addis Ababa Principles and Guidelines for Sustainable Use of Biodiversity*, which were adopted by the Conference of the Parties to the CBD at its seventh meeting.

²⁶ The balance between trade and conservation, however, remains delicate. The debate over elephants and the illegal ivory trade that has occurred at several meetings of the CITES COP is a clear example. While a number of countries believe that further ivory sales from African elephants should be prohibited to reduce future threats to elephants and deter poachers and traders, others are convinced that sales of ivory stockpiles and the sustainable use of elephant products help fund anti-poaching and conservation activities.

²⁷ For instance, the Rotterdam Convention has 111 Parties, the Stockholm Convention has 134 Parties, and the Biosafety Protocol has 136 Parties, as of November 2006.

²⁸ See UNDP and UNCTAD, Strengthening the Fabric of Society: Trade and Environment (1998).

²⁹ See Werksman, J., "Five MEAs, Five Years Since Rio: recent lessons on the effectiveness of Multilateral Environmental Agreements." Foundation for International Environmental Law and Development (FIELD), London, United Kingdom, 1997.

³⁰ *Id*.

III. Trade, Environment and MEAs

As all economic activity is linked to some degree to the natural environment, the interaction between trade and environment is inevitable and has been addressed in both the trade and environmental context.³¹ The Preamble to the Agreement establishing the WTO, for example, recognizes that trade should "protect and preserve the environment" in a manner consistent with Members' different levels of economic development.³² The WTO has also recognized that not only is there no inherent policy contradiction between an open, equitable and non-discriminatory multilateral trading system and the protection of the environment, but that sustainable development requires the two systems to be mutually supportive.³³ Specifically, in Paragraph 6 of the Doha Mandate, WTO Members noted that "the aims of upholding and safeguarding an open and non-discriminatory multilateral trading system, and acting for the protection of the environment and the promotion of sustainable development can and must be mutually supportive."

From an environmental perspective, trade poses challenges as well as opportunities. As a result, some MEAs incorporate trade-related provisions as part of the range of measures designed to effectively address environmental challenges.³⁴ On the one hand, the increasing scale of economic activity made possible by international trade can magnify certain environmental problems. For example, international trade may promote expanded economic activity leading to the over-exploitation of certain resources and thus lead or contribute to environmental damage.³⁵ In some areas, trade liberalization may also facilitate and increase the international movement of goods that pose serious environmental risks.³⁶ To address these concerns, the international community has developed environmental instruments that incorporate some degree of trade regulation.

Trade-related measures are sometimes also needed and incorporated in MEAs to address other types of problems, such as the lack of adequate data and information for policy development or decision-making and the absence of incentives to contribute to the protection of public environmental goods. In some instances, trade-related measures may also be needed from an economic perspective, since they ensure that trade liberalization is based on effectively functioning, rather than distorted, markets. Finally, trade-

³¹ See International Institute for Sustainable Development (IISD) and UNEP, Environment and Trade: A Handbook, 2nd Edition (2005). The environment is the basis for all basic inputs –natural resources– and for the energy needed to process them. It also receives the waste products of economic activity.

³² Marrakesh Agreement establishing the World Trade Organization (WTO Agreement), 15 April 1994.

³³ See, e.g., the Declaration of the Doha Ministerial Conference, 20 November 2001, WT/MIN(01)/DEC/1 and the CTE Singapore Report *supra* note 15.

³⁴ It is important to note that only one in ten MEAs, more or less, includes trade-related provisions.

³⁵ Some of the risks posed by transboundary movement of goods, for instance, are described in the background to the MEAs analyzed in Section III below.

³⁶ For instance, the transboundary movement of hazardous waste is addressed by the Basel Convention.

related measures often play an important role in supporting other MEA provisions, including the phase-out of certain substances, and ensuring the effectiveness of MEAs, for example by assisting in compliance and enforcement.

On the other hand, trade can have distinctly positive environmental impacts. Beyond the constructive contribution in terms of poverty reduction when higher rates of trade lead to enhanced economic welfare, trade can promote the dissemination of more environmentally friendly technologies and products and increase the efficiency of natural resource use.³⁷ Diverse measures in MEAs address these issues, encouraging equitable sustainable development through the principle of common but differentiated responsibilities, promoting transfer of environmentally sound technologies and products, and addressing market failures leading to inefficiencies.

In summary, there are a number of elements that must be considered in any analysis of trade-related measures in MEAs, including the role, importance, and particular approach of MEAs, as well as the fundamental functions of trade-related measures in that context. The following analysis considers trade-related measures in the context of the overall objectives and package of measures of six specific MEAs.

A. CITES

i. Objectives and Overview of CITES

The principle objective of CITES, which entered into force in July 1975, is to ensure that international trade in specimens of certain wild animals and plants does not threaten the survival of these species. Annual international wildlife trade is estimated to be worth billions of dollars and to include hundreds of millions of plant and animal specimens. Levels of exploitation of some animal and plant species are so high that unregulated trade in them, together with other factors such as habitat loss, is capable of heavily depleting or destroying their populations. CITES was thus conceived as an international effort to safeguard certain species from over-exploitation.³⁸

The CITES Preamble recognizes that wild fauna and flora are an irreplaceable part of the natural systems of the Earth that must be protected for future generations. Contracting States were also conscious, however, of the ever-growing value of wild fauna and flora from aesthetic, scientific, cultural and economic points of view. CITES therefore does not serve as an embargo on wildlife trade but subjects international trade in selected species to certain controls. It requires that the import, export, re-export and introduction from the sea of these species be authorized through a permitting system.³⁹ The species covered by CITES are listed in three Appendices, depending on the level of the threat of extinction they face as a result of international trade. Appendix I includes species threatened with extinction, in which trade is only exceptionally permitted. Appendix II includes species not necessarily currently in danger of extinction but in which trade must be controlled in order to avoid utilization incompatible with their survival. Finally, Appendix III contains species that are protected in at least one country, which has asked other CITES Parties for assistance in controlling the trade.⁴⁰ CITES is among the largest conservation agreements in existence, with over 170

³⁷ See, e.g., the environmental assessment methodology of the OECD, which has been further developed by other practitioners of assessment, including UNEP. UNEP, in its 2001 publication, "Economic Reforms, Trade Liberalization and the Environment: A Synthesis of UNEP Country Projects," described five broad categories of environmental impacts from trade reforms, including both positive and negative impacts.

³⁸ See CITES website, "What is CITES?" (http://www.cites.org/eng/disc/what.shtml).

³⁹ *Id*.

⁴⁰ *Id*.

Parties, and has had significant success in curbing, and arguably halting, species extinction resulting from international trade.⁴¹

ii. Trade-related and Other Measures in CITES

Trade-related measures represent an integral part of CITES given that the treaty itself focuses on ensuring that international trade in wild fauna and flora does not threaten their survival. Nevertheless, in CITES, as in other MEAs, these trade-related measures are supported by a broad range of other measures established to further the agreement's objectives, including technical assistance, capacity building and a number of flexibility provisions. Trade-related measures in CITES include provisions for a permitting system for international trade in listed species, requirements for trade with non-Parties, and measures for cases of non-compliance.

CITES provides a regulatory framework for the international trade in specimens of certain wild animals and plants through a system of permits and certificates based on the listing of the species.⁴² Thus, controls for Appendix I species those threatened with extinction – are strict, limiting their trade to exceptional circumstances that do not further endanger their survival. The import of specimens of Appendix I species for "primarily commercial purposes" is prohibited. 43 For Appendix I species, an export permit is required and shall only be granted when the following conditions are met: a) the exporting Party has advised that the export will not be detrimental to the survival of the species; b) the exporting Party is satisfied that the species has been legally acquired; c) the exporting Party is satisfied that the method of shipment for the specimens will minimize risks of injury, damage to health, and cruel treatment; and d) the exporting Party is satisfied that an import permit has been granted for the specimen. In turn, an import permit may only be granted when the following conditions have been met: a) the importing Party has advised that the import will be for purposes that are not detrimental to the survival of the species; b) the importing Party is satisfied that the recipient is suitably equipped to care for any live specimen; and c) the importing Party is satisfied that the species will not be used for primarily commercial purposes. 44 Trade in Appendix II and III species – those not currently threatened with extinction – only requires an export permit with some of the above-mentioned characteristics or a certificate of origin in the case of certain Appendix III species. 45

CITES also requires that permits and certificates granted under a Party's permitting system be in accordance with the Convention. 46 Each permit or certificate, for instance, must contain the title of the Convention, the name and any identifying stamp of the national Management Authority granting it, and a control number assigned by the national Management Authority. All permits and certificates should follow the standard format provided as an annex to Resolution Conf. 12.3 (Rev. COP 14). These measures encourage a harmonized system that will avoid the proliferation of different standards and contribute to effective compliance monitoring. The problems of insufficient information and lack of effective monitoring are also addressed by the CITES requirement that Parties maintain records of trade in covered species and submit periodic reports to the Secretariat. 47

⁴¹ As it is difficult to disentangle a single agent of causality in species extinction, it is unclear if, for example, habitat loss or hunting was the driving force behind the believed extinction of the West African Black Rhino (*Diceros bicornis longipes*).

⁴² See, e.g., CITES, Articles III, IV and V.

⁴³ CITES, Article III, para. 3(c).

⁴⁴ See CITES, Article III.

⁴⁵ See CITES, Articles IV and V.

⁴⁶ See, e.g., CITES, Article VI and VII.

⁴⁷ See CITES, Article VIII.

CITES also includes certain exceptions. For instance, CITES facilitates certain kinds of trade that are less likely to cause detrimental impact on wild populations through the provision of exemptions and special procedures. As CITES also allows trade with non-Parties to the Convention under special circumstances. Trade in listed species with non-Parties is possible when comparable documentation, which substantially conforms with the CITES requirements for permits and certificates, is issued by the competent authorities in those countries. Limiting trade with non-Parties to situations where CITES requirements are met aims to further enhance the conservation objectives of CITES while simultaneously encouraging membership to the Convention. It also aims to avoid trade in listed species by non-Parties from undermining the conservation achievements of CITES Parties. It should be noted, however, that it does not prevent trade among two or more non-Parties to the Convention.

Article XIII of CITES on International Measures (i.e. the key compliance-related article), while not referring expressly to trade-related measures, does authorize the COP to recommend appropriate measures in certain cases. The COP has delegated such authority to the Standing Committee on a number of occasions. One of the measures available to the COP or Standing Committee is the recommendation that Parties temporarily suspend trade with a Party or non-Party in question. The focus of Article XIII, however, which addresses cases where species included in Appendix I or II are adversely affected by trade in specimens of that species or where CITES provisions are not being effectively implemented, is on working with the Party in question to achieve remedial action. Of the various measures to address a Party's non-compliance, and bring about full compliance with the Convention, a recommendation of a temporary suspension of commercial or all trade in specimens of one or more CITES-listed species is generally used as a last resort. The use of trade-related measures in this context would normally only occur where a Party's non-compliance is unresolved and "persistent", including cases in which a Party does not follow recommendations, take advantage of offers of assistance, agree to a compliance action plan, or comply with an agreed plan.⁵⁰

As mentioned, CITES' trade-related measures function in the context of an integrated package of measures, which is intended to achieve effectiveness, efficiency and equity. In terms of equity, CITES contains a number of exceptions and flexibilities. CITES general trade provisions do not apply to pre-Convention specimens, personal or household effects and species bred in captivity or artificially propagated.⁵¹ In addition, Parties have the right to opt out of specific listings by entering a reservation at the time of adherence to the Convention or, thereafter, at the time of listing. This means that, for a particular species, the State is treated as a non-Party with respect to trade if a reservation has been entered.⁵² Moreover, the CITES permitting system is dynamic and can adapt to changing needs and circumstances. Appendices I and II may be amended by two-thirds of the Parties present and voting at a meeting of the COP, while Appendix III species may be submitted and withdrawn by Parties unilaterally at any time.⁵³

Though not provided for in the Convention itself, another critical part of CITES is the broad range of training and technical assistance activities conducted by the Secretariat under its capacity building programme and by the Parties themselves. The main capacity building objectives are to ensure that Parties have and are able to use all of the technical information, knowledge and skills necessary for them to fulfill their responsibilities under the Convention and thus ensure the achievement of the CITES objectives.

⁴⁸ See CITES, Article VII.

⁴⁹ See CITES, Article X.

⁵⁰ At COP 14, CITES Parties adopted Resolution Conf. 14.3 on CITES compliance procedures (http://www.cites.org/eng/res/14/index.shtml.).

⁵¹ See CITES, Article VII.

⁵² See CITES, Article VII.

⁵³ See CITES, Articles XV and XVI.

B. Montreal Protocol

i. Objectives and Overview of the Montreal Protocol

The Montreal Protocol aims to protect the stratospheric ozone layer, and thus human health and the environment, by equitably controlling the production and consumption of substances that deplete it, with the ultimate objective of their elimination.⁵⁴ Following the discovery of the Antarctic ozone hole in 1985, governments recognized the need for measures to reduce the production and consumption of a number of gases harmful to stratospheric ozone – the protective layer shielding the Earth from harmful ultra-violet radiation. Certain industrial processes and consumer products result in the atmospheric emission of "halogen source gases" that are known to be harmful to the ozone layer. For example, chlorofluorocarbons (CFCs), once used in almost all refrigeration and air conditioning systems, eventually reach the stratosphere and release ozone-depleting chlorine atoms. The increased UV-B radiation resulting from stratospheric ozone depletion can be extremely harmful, causing, for example, skin cancer and cataracts in humans and some animals, and inhibiting growth and photosynthesis in certain plants.⁵⁵ The Montreal Protocol, adopted in 1987, thus addresses the need to take appropriate measures to protect human health and the environment against adverse effects resulting from human activities that modify the ozone layer.⁵⁶

To achieve these objectives, the Montreal Protocol requires Parties to establish controls on the national production and consumption of ozone-depleting substances (ODS).⁵⁷ The core of the Montreal Protocol is thus the control measures it requires Parties to impose on the production and consumption of ODS.⁵⁸ Article 2 of the Protocol defines phase-out schedules for the various categories of ODS. In addition, the Protocol was designed so that the phase-out schedules could be revised on the basis of periodic scientific and technological assessments. Following such assessments, the Protocol has been adjusted five times between 1990 and 1999 to accelerate the phase-out schedules of ozone-depleting substances. It has also been amended to introduce other kinds of control measures and to add new controlled substances to the list. It should be noted, however, that not all Parties have ratified all of these amendments. As a result of the Protocol, now ratified by over 190 states and the European Community, the total abundance of ozone-depleting gases in the atmosphere has begun to decrease in recent years and, if States continue to follow its provisions, effective levels of ozone-depleting gases should fall to early 1980s levels by the middle of this century.⁵⁹

ii. Trade-related and other Measures of the Montreal Protocol

Although regulating trade in ODS is not the primary concern of the Montreal Protocol, it does contain trade-related measures to supplement and strengthen the controls on production and consumption. Similarly, a broad range of other measures ensure the effectiveness of the control system, including those regarding financial assistance and those promoting research, development, and exchange of information on best management technologies and possible alternatives for controlled substances.

⁵⁴ See Montreal Protocol, Articles 2 and 5.8.

⁵⁵ See UNEP website, "2002 Environmental Effects Assessment - Questions and Answers About the Effects of the Depletion of the Ozone Layer on Humans and the Environment," pages 6-9 (http://www.unep.org/ozone/Public_Information/eeapfaq2002.pdf).

⁵⁶ See Montreal Protocol, Preamble.

⁵⁷ See Fahey, D.W. "Twenty Questions and Answers About the Ozone Layer," 2002 Scientific Assessment Report, page 28 (http://www.unep.org/ozone/pdfs/Scientific_assess_depletion/11-qa.pdf).

⁵⁸ See UNEP website, "Action on Ozone," 2000 (http://www.unep.org/ozone/pdfs/ozone-action-en.pdf).

⁵⁹ See UNEP website, "Evolution of the Montreal Protocol," (http://www.unep.ch/ozone/Ratification_status/ evolution_of_mp.shtml).

Article 4 contains some of the Montreal Protocol's main trade-related provisions. With respect to controlled substances, Article 4 prohibits the import and export to non-Parties, and establishes a process for Parties to limit the international movement of products containing controlled substances or produced with controlled substances. Nevertheless, the imports and exports of controlled substances may be permitted from, or to, any non-Party, if a meeting of the Parties determines that country to be in full compliance with the Protocol's control measures. These trade restrictions thus aim to promote broad participation in the agreement, and they seek to ensure that the environmental gains made by Parties are not undermined by activities in other countries that may not be party to the Protocol.

Article 4A concerns trade between Parties to the Montreal Protocol. In particular, it addresses the situation in which a Party is unable, despite having taken all practicable steps to comply with its obligations under the Protocol, to cease production of a controlled ozone-depleting substance for domestic consumption. In those circumstances, Article 4A ensures there is no perverse incentive to maintain that production by requiring Parties to ban the export of used, recycled and reclaimed quantities of the substance produced, other than for the purpose of destruction. Trade-related measures thus support the phase-out of controlled substances. Article 4B requires Parties to establish and implement a system for licensing the import and export of controlled substances, in order to monitor the imports and exports of ODS, prevent illegal trade, and enable data collection. These information requirements, along with reporting and other measures of the Montreal Protocol, have been significant in effectively reducing global emissions of ODS.

In rare circumstances, implementation of Article 8 could result in application of trade-measures. Article 8 instructs the COP to establish the procedures and institutional mechanisms for determining non-compliance, as well as the treatment of Parties found to be in non-compliance. The non-compliance procedure adopted in 1992 focuses primarily on providing parties with the incentives and assistance they require to meet their obligations under the Protocol. Nevertheless, in certain cases of non-compliance Parties may suspend the rights of the non-complying Party to trade controlled substances and technologies with other Parties.⁶¹

Not only trade-related provisions but also other types of measures support the Protocol's control system. For instance, the control measures themselves provide flexibilities that seek to facilitate compliance. The formula used to determine consumption, the granting of an ozone depleting value to each covered substance, among other measures, affords countries the possibility of choosing how to best satisfy their obligations. ⁶² In addition, the Protocol recognizes that the burdens of the control system are sometimes disproportionate for developing countries and seeks to offset some of the economic and social costs associated with ratification and compliance. For instance, the Protocol allows developing country Parties with a limited annual per capita consumption of controlled substances to defer their phase-out obligations for up to ten years. ⁶³ Further, the Protocol establishes mechanisms for providing technological and financial assistance to these Parties as they make the transition to more ozone-friendly technologies. The London Amendments, adopted at the Second COP, require Parties to establish a mechanism of financial and technical cooperation to enable developing

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⁶⁰ See Report of the Fifteenth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer, UNEP/OzL.Pro.15/9, Decision XV/20 (http://www.unep.org/ozone/Meeting_Documents/mop/15mop/9.e.pdf).

⁶¹ The use of such measures is exceedingly rare. In the sixteenth Meeting of the Parties of the Montreal Protocol in November 2004, of the sixteen decisions adopted on non-compliance, only one incorporated trade-related measures. The decision on Azerbaijan's non-compliance due to excess consumption of CFCs in 2001-2003 *urged* Azerbaijan to report 2004 consumption data and introduce a ban on the import of CFCs, in order to support complete phase out by 2005

⁶² See Montreal Protocol, Article 3 and Annexes A, B and C.

⁶³ See Montreal Protocol, Article 5.1.

country Parties to comply with the Protocol. In particular, the establishment of the Multilateral Fund has ensured that adequate and consistent financing is available for developing country Parties. Moreover, developing countries' compliance was made contingent upon the effective implementation of these financial and transfer of technology provisions. As a result, these positive measures not only make trade-related measures more efficient, but also, in some cases, decrease the need for their actual use.

C. Basel Convention

i. Overview and Objectives of the Basel Convention

The Basel Convention addresses the challenges posed by the generation, transboundary movement and management of hazardous wastes and other wastes. In the late 1980s, stricter environmental standards and higher disposal costs in developed countries increased the shipment of hazardous waste to countries that were not always able to adequately manage the waste. Improper management, indiscriminate dumping, and the accidental spill of wastes can result in, *inter alia*, air, water, and soil pollution that endangers entire communities, burdens countries with colossal clean up costs, and undermines prospects for development. A public outcry over the mounting evidence of uncontrolled movement and dumping of hazardous wastes, including incidents of illegal dumping in developing nations by companies from developed countries, led to the adoption of the Basel Convention in 1989.⁶⁴

The Basel Convention came into force in 1992. Its fundamental aims are the control and reduction of transboundary movements of hazardous wastes and other wastes subject to the provisions of the Convention, the disposal and treatment of such wastes as close as possible to their source of generation, the reduction and minimization of their generation, the environmentally sound management of such wastes and the active promotion of the transfer and use of cleaner technologies. 65 One of the key elements in the Basel Convention is thus a control system for the transboundary movement, management and disposal of such wastes that requires that transboundary movements of hazardous wastes and other wastes for disposal can only take place upon prior written notification by the State of export to the competent authority of the State of import, and upon the prior informed consent by the importing State to the import.⁶⁶ The State of export must ensure that the waste does not leave its territory until prior informed consent is received. Another central element of the Basel Convention system is the requirement for the environmentally sound management of waste, which aims to protect human health and the environment against the adverse effects which may result from such wastes by, inter alia, minimizing the generation of hazardous waste whenever possible. Environmentally sound management requires addressing the issue through an "integrated life-cycle approach," and integrated waste management, which involve strong controls from the generation of a waste to its collection, storage, transport, and final disposal. During its first decade, the Basel Convention was primarily devoted to setting up the legal framework for controlling the transboundary movements of hazardous wastes. At its sixth COP meeting in 2002, Parties to the Basel Convention decided to build on this framework by emphasizing the full implementation and enforcement of treaty commitments at the national level, the minimization of hazardous waste generation, as well as the importance of capacity building. It was at this COP that a mechanism for

⁶⁴ See Basel website, "Origins of the Basel Convention" (http://www.basel.int/convention/basics.html).

⁶⁵ Article 2 of the Basel Convention contains the definition of "waste," which must be read in conjunction with the definition of "disposal" in Annex IV of the Convention. A waste is "hazardous" under the Convention if it is included in Annex I (unless it does not possess any of the hazardous characteristics contained in Annex III) or if it is considered hazardous under the domestic legislation of one of the countries involved in the transboundary movement (Basel Convention, Article I). "Other wastes" for the purposes of the Convention, are wastes that belong to any category contained in Annex II that are subject to a transboundary movement.

⁶⁶ See Basel Convention, Article 6.3.

promoting implementation and compliance was established to assist Parties to comply with their obligations under the Convention and to facilitate, promote, monitor and aim to secure the implementation of and compliance with the obligations under the Convention.⁶⁷

ii. Trade-related and other Measures of the Basel Convention

Due to the fact that the Basel Convention regulates transboundary movements of hazardous wastes and other wastes by establishing a regulatory framework for the import and export of these wastes, its implementation may have implications for the multilateral trade regime.

Article 6 of the Convention, which establishes the procedures for prior informed consent, requires Parties to notify in writing the intended country of import and countries of transit of any proposed transboundary movement of hazardous wastes and other wastes. The notification must include information such as, inter alia, the reason for the waste export; the generator, exporter, intended carrier (if known), and disposer of the waste; the countries of export, transit and import of the waste, and the competent authorities; information relating to insurance; designation and physical description of the waste and information on any special handling requirements, including emergency provisions in case of accidents; and method of disposal.⁶⁸ The Party of import is obliged to respond to the notifier in writing, either consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information.⁶⁹ Until written consent has been received, along with a confirmation of the existence of a contract between the exporter and the disposer specifying environmentally sound management of the wastes in question, the State of export must not allow the generator or exporter to commence the transboundary movement.⁷⁰

Other elements of the regulatory framework of the Basel Convention, such as those regarding the import, export, packaging, and labeling of hazardous and other wastes, may also have implications for the multilateral trade regime. Article 4 of the Convention sets out the general obligations for Parties, including the right of Parties to prohibit the import of hazardous wastes or other wastes to their country for disposal. Other Parties to the Convention are obliged to recognize the exercise of that right by not allowing the export of hazardous wastes and other wastes to the Parties which have established such prohibitions, if these have been notified to the other Parties through the Secretariat. Parties are also required to not allow the import and export of wastes if there is reason to believe the wastes will not be managed in an environmentally sound manner.⁷¹

In addition, Article 4 prohibits Parties from permitting the export of hazardous wastes or other wastes to a non-Party or to import such waste from a non-Party.⁷² Nevertheless, transboundary movements to or

⁶⁷ See "Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal," 10 February 2003, UNEP/CHW.6/40 (http://www.basel.int/meetings/cop/cop6/english/Report40e.pdf).

⁶⁸ See Basel Convention, Annex V.A.

⁶⁹ See Basel Convention, Article 6.2.

⁷⁰ See Basel Convention, Article 6.3. Information requirements are also addressed elsewhere in the Basel Convention. For example, Article 13 of the Basel Convention requires Parties to inform those states that might be at risk in the case of an accident occurring during the transboundary movement or disposal of hazardous wastes or other wastes, which are likely to present risks to human health and the environment. The Secretariat also acts as a clearing house for decisions made by Parties not to consent totally or partially to the import or export of hazardous wastes or other wastes, as well as for reports on transboundary movements of hazardous wastes or other wastes in which Parties have been involved and other relevant information.

⁷¹ See Basel Convention, Article 4.1 (a), (b), and (e).

⁷² See Basel Convention, Article 4.5.

from non-Parties are allowed as long as it is subject to a bilateral, multilateral or regional agreement or arrangement, the provisions of which are no less stringent than those of the Basel Convention and thus do not derogate from the environmentally sound management of hazardous wastes.⁷³

Finally, Article 4 requires that hazardous wastes and other wastes that are the subject of a transboundary movement be packaged, labeled, and transported in conformity with generally accepted and recognized international rules and standards, as well as be accompanied by a movement document from the point at which a transboundary movement commences to the point of disposal.⁷⁴ These measures ensure environmentally sound management of wastes, while addressing information requirements and promoting harmonized identification systems.

In 1995, the Basel COP adopted at its third meeting, an amendment to the Convention that is known as the Ban Amendment, which has not yet entered into force. This amendment requires Parties listed in Annex VII of the Convention (OECD, EC and Liechtenstein) to prohibit all transboundary movements of hazardous wastes that are destined for final disposal in States not listed in Annex VII. The Ban Amendment also requires Parties listed in Annex VII to phase out by 31 December 1997 and, prohibit, as of that date, all transboundary movements of hazardous wastes which are destined for operations which may lead to resource recovery, recycling reclamation, direct re-use or alternative uses to States not listed in Annex VII. The Ban Amendment is intended to respond to lingering problems relating to illegal traffic in waste, and the concerns expressed by some developing countries about their inability to effectively monitor and enforce their own import restriction policies.⁷⁵ Similar measures were also adopted, for instance, by African nations in the Bamako Convention in 1991. Nevertheless, the Ban Amendment has been criticized by some countries that claim it will prevent the growth of legitimate and potentially profitable recycling industries in developing countries. These Parties have also questioned why the ban should be applied to an arbitrary list of countries rather than countries that lack capacity to handle the hazardous wastes, and question the presumption that developing countries as a group lack the capacity to manage waste in an environmentally sound manner.⁷⁶

In addition to trade-related provisions, a number of non-trade related measures are also incorporated in the Basel Convention to achieve its objectives. The Convention contains provisions, for instance, on the collection of information and on the supply of legal and technical assistance. In addition, the COP meetings have developed a number of important mechanisms. For instance, the Basel Protocol on Liability, although not yet in force, was adopted at the fifth meeting of the COP to establish a comprehensive regime for liability, including both strict and fault-based liability that aims at providing for adequate and prompt compensation for damage occurring during a transboundary movement of hazardous wastes and other wastes. Another example is Article 14, which contains a commitment to establish regional or sub-regional centers for training and technology transfer that has also been built upon by the COP meetings, leading to the designation of centers all over the world. The core functions of the centers include, inter alia, developing and conducting training programmes in the field of environmentally sound management of hazardous wastes, identifying,

⁷³ See Basel Convention, Article 4.5.

⁷⁴ See Basel Convention, Article 4.7 (b) and (c).

⁷⁵ See, e.g., interventions by developing country representatives during the third COP meeting stressing the need for technical assistance to prevent illegal traffic into their territories, "Report of the Third Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal," paragraph 21 (http://www.basel.int/meetings/cop/cop1-4/cop3repe.pdf).

⁷⁶ See, e.g., Earth Negotiations Bulletin, "Basel Convention COP 7 - Summary and analysis," Vol. 20 No. 18, November 2004 (http://www.iisd.ca/download/pdf/enb2018e.pdf).

⁷⁷ See Basel Convention, Articles 4, 13, 10 and 16.

⁷⁸ For instance, at the seventh meeting of the COP a Regional Center in Tehran, Iran was established.

developing and strengthening mechanisms for the transfer of environmentally sound technologies, and providing assistance and advice to the Parties and non-Parties of the region at their request on any relevant matters and on the implementation of the Convention. ⁷⁹ Moreover, the compliance mechanism, adopted at the sixth meeting of the COP, consists of a non-confrontational, facilitative procedure that aims to assist Parties facing compliance difficulties through advice and non-binding recommendations. The Basel Strategic Plan sets out the guidelines for the Convention's activities up to 2010, focusing on the minimization of hazardous waste generation. Particularly, the Strategic Plan focuses on developing countries establishing a vision that environmentally sound management should be accessible to all Parties and a commitment to improve their institutional and technical capabilities and further develop regional and sub-regional centers to achieve that vision. ⁸⁰

Finally, the last meeting of the COP held in December 2006, recognized that new waste streams pose new challenges which may also have trade-related implications, e.g. e-waste and computers.⁸¹

D. Rotterdam Convention

i. Overview and Objectives of the Rotterdam Convention

The Rotterdam Convention provides countries considering the importation of certain hazardous pesticides and chemicals the tools and information they need to identify potential risks and exclude chemicals they cannot manage safely. So In addition, if a country agrees to import chemicals, the Rotterdam Convention promotes their safe use through labelling standards, technical assistance, and other forms of support. Hazardous pesticides and other chemicals create significant risks to human health and the environment, killing or seriously affecting the health of thousands of people every year and also damaging the natural environment and many wild animal species. Governments began to address the problem in the 1980s by establishing a voluntary Prior Informed Consent (PIC) procedure and in 1998 strengthened the procedure by adopting the Rotterdam Convention, which makes PIC legally binding.

The Rotterdam Convention has two primary objectives. First, it aims to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm.⁸⁴ Second, it seeks to contribute to the environmentally sound use of those chemicals by facilitating information exchange about their characteristics. The Rotterdam Convention initially covered 22 pesticides and 5 industrial chemicals, with the possibility of more being added by the COP.⁸⁵ Since the Rotterdam Convention entered into force in February 2004, the first COP has

⁷⁹ See Basel website, Regional Centers (http://www.basel.int/centers/regdescr.html).

⁸⁰ See Basel Convention COP 6, "Strategic Plan For The Implementation Of The Basel Convention (to 2010)" (http://www.basel.int/meetings/cop/cop6/StPlan.pdf).

⁸¹ See "Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal on its eighth meeting," 5 January 2007, UNEP/CHW.8/16 (http://www.basel.int/meetings/cop/cop8/docs/16eREISSUED.pdf).

⁸² See Rotterdam Convention website, "What is the Rotterdam Convention" (http://www.pic.int/home.php?type=t&id=5&sid=16).

⁸³ *Id*.

⁸⁴ *Id*.

⁸⁵ The Rotterdam Convention covers pesticides and industrial chemicals that have been banned or severely restricted for health or environmental reasons and that Parties have notified for inclusion in the PIC procedure. One notification from each of two specified regions triggers consideration of the addition of a chemical to the PIC procedure, while severely hazardous pesticide formulations that present risks under conditions of use in developing countries may also be nominated for inclusion in the procedure.

already added fourteen chemicals, including several forms of asbestos, two lead additives for gasoline, and a range of hazardous pesticides. 86 There are currently 39 chemicals listed in Annex III of the Convention: 24 pesticides, 11 industrial chemicals, and severely hazardous pesticide formulations.

ii. Trade-related and other Measures of the Rotterdam Convention

The Rotterdam Convention focuses on the regulation of international trade of certain hazardous chemicals as a way to protect human health and the environment from potential harm and to contribute to their environmentally sound use. Whereas the use of both industrial and agricultural chemicals has traditionally been greatest in industrialized counties, their fastest growing market is now in developing countries.⁸⁷ Of the challenges raised by the use and management of hazardous pesticides and other chemicals, international attention has centered on the fact that many countries lack the institutional capacity to make informed decisions on chemical imports and their subsequent management, which raises concern for human health and the environment.88 The regulatory framework for international trade in certain hazardous chemicals established by the Rotterdam Convention thus emphasizes information exchange and adequate national decision-making processes. The PIC procedure, the core of the Convention and main trade-related measure, is designed to overcome the problem of lack of adequate and precise information. It ensures that countries have accurate data on which to base their policy decisions concerning harmful effects of certain banned or severely restricted chemicals and severely hazardous pesticides. Informed choices are also fundamental for acceptable national regulations concerning the manufacture, use, and disposal of the chemicals. As a result, other measures within the Rotterdam Convention also aim to address information gaps or deficiencies. In that context, both trade-related and other measures are an integral part of the regulatory package of the Convention.

Article 10 establishes the obligations in relation to imports of substances subject to the PIC procedure. It sets forth means for formally obtaining and disseminating the decisions of Parties on future shipments of specified chemicals. Once a chemical is included in the PIC procedure, a "decision guidance document" (DGD) containing information concerning the chemical and the regulatory decisions to ban or severely restrict the chemical for health or environmental reasons is circulated to importing countries.⁸⁹ These countries are given nine months to prepare a response concerning the future import of the chemical. The response can consist of either a final decision (to allow import of the chemical, not to allow import, or to allow import subject to specified conditions) or an interim response, which may entail a request for additional information or assistance by the Secretariat. To ensure decisions are not made in a protectionist manner, any prohibitions or specific conditions must apply equally to domestic production.

Exporting Parties must also comply with PIC procedure requirements. Article 11 establishes the obligations in relation to exports of covered substances in the PIC procedures. It provides that exporting Parties are obliged to take appropriate measures to ensure that exporters within their jurisdiction comply with decisions in each response, as well as to ensure that exports to an importing Party that has not produced a response

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⁸⁶ The First Ministerial Conference of Rotterdam Convention was held in Geneva in September 2004.

⁸⁷ See Rotterdam Convention website, "95 Countries Agree On New International Convention On Dangerous Chemicals And Pesticides," News and Highlights, 16 March 1998 (http://www.fao.org/ WAICENT/FaoInfo/Agricult/AGP/AGPP/Pesticid/PIC/picnews6.htm).

⁸⁸ As mentioned, in 1987 the UNEP Governing Council adopted The London Guidelines for the Exchange of Information on Chemicals in International Trade, UNEP/GC, 14/17, Annex IV. In addition, in 1985, the FAO adopted the first International Code of Conduct on the Distribution and Use of Pesticides, which established voluntary standards to aid countries without existing pesticide regulation, M/R8130, E/8.86/1/5000.

⁸⁹ See Rotterdam Convention, Articles 7.3 and 10.2.

only take place if there is explicit consent or the chemical is already registered or used in that country, or six months after the Secretariat has informed Parties of the failure of the importing Party to produce a response. In addition, Article 12 establishes that even if a chemical is not included in the Convention, if it is banned or restricted within the jurisdiction of the exporting Party, that Party is obliged to provide notification of the first export after the regulatory measures and then for the first export in each calendar year, and provide the same information as it would for a covered substance. Finally, Article 13 states that, without prejudice to any requirements of the importing Party, each exporting Party must require that chemicals listed in Annex III of the Convention, chemicals banned or severely restricted in its territory and chemicals subject to labeling requirements in its territory, when exported, are subject to labeling requirements that provide adequate information with regard to risks and/or hazards to human health or the environment.

As mentioned above, trade-related measures within the PIC procedure are complemented by a number of other provisions in the Rotterdam Convention. For instance, beyond the exchange of information resulting from PIC, Article 14 provides that Parties are obliged to promote the exchange of scientific, technical, economic and legal information concerning the covered chemicals, including toxicological and safety information. Also, Article 16 provides that Parties must cooperate in promoting technical assistance for the development of the infrastructure and the capacity necessary to manage chemicals to enable implementation of the Rotterdam Convention. Finally, Article 17 calls for Parties to develop and approve procedures and mechanisms for addressing compliance issues with the Convention. The Parties are currently working towards establishing the compliance procedures and mechanisms.

E. Cartagena Protocol on Biosafety

i. Objectives and Overview of the Biosafety Protocol

The Cartagena Protocol on Biosafety seeks to "protect biological diversity from the potential risks posed by living modified organisms resulting from modern biotechnology," taking into account risks to human health. On Genetic modification, achieved by the application of recombinant DNA technology, allows for genes to be transferred in ways that are not possible in nature, which may lead to useful products and technologies. Agenda 21, for example, states that modern biotechnology could significantly contribute to improving health care and enhancing food security through sustainable agricultural practices. However, there is also concern about the potential risks of genetic modification for biodiversity, including potential dispersal of genetically modified organisms in the environment, potential impacts on non-target species, and potential transfer of the inserted genetic material to other organisms. Given the growth of the international market for genetically modified organisms and products made from them, an international framework to ensure their safe transfer, handling and use and to achieve an adequate balance between their potential benefits and risks is of fundamental importance.

The Cartagena Protocol on Biosafety, a supplementary agreement to the Convention on Biological Diversity (CBD), recognizes both the potential of modern biotechnology for human well-being and its potential adverse effects on biological diversity and human health.⁹³ Its objective is to contribute, in accordance

⁹⁰ CBD website, "The Biosafety Protocol: Background" (http://www.cbd.int/biosafety/background.shtml).

⁹¹ See Mackenzie, Ruth et al, An Explanatory Guide to the Cartagena Protocol on Biodiversity, IUCN, 2003 (http://www.iucn.org/themes/law/pdfdocuments/Biosafety-guide.pdf).

⁹² *Id*.

⁹³ See Biosafety Protocol, Preamble.

with the precautionary approach, "to ensuring an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms, taking also into account risks to human health, and specifically focusing on transboundary movements." Its scope is thus limited to living modified organisms (LMOs) – biological entities capable of replicating or transferring genetic material and constituting a novel combination of genetic material obtained through use of modern biotechnology. The Biosafety Protocol establishes an advance informed agreement (AIA) procedure for ensuring that countries are provided with the information necessary to make informed decisions before agreeing to the import into their territory of living modified organisms that are intended for release into the environment. It also reaffirms the precautionary approach contained in Principle 15 of the Rio Declaration on Environment and Development. In addition, the Biosafety Protocol establishes a Biosafety Clearing House to facilitate the exchange of information on living modified organisms and to assist countries in the implementation of the Protocol.

ii. Trade-related and other Measures of the Biosafety Protocol

The Biosafety Protocol, although containing a broader overall objective, primarily focuses on transboundary movements of LMOs. Thus, a number of provisions are related to trade, most significantly the measures within the AIA mechanism, but also those that refer to trade with non-Parties and to the handling, transport, identification and packaging of LMOs.

The AIA mechanism is considered the backbone of the agreement. The need to know and to take informed decisions was identified from the outset of negotiations as a crucial element for adequate biosafety in light of the possible risks of LMOs, including that they could be environmentally hazardous, cause environmental damage, or pose risks to human health. Article 7 requires the first importation of an LMO destined for intentional introduction in the environment and not identified by a decision of the Parties as unlikely to have adverse effects to comply with the AIA procedure. This procedure centers around two components: notification and decision-making. Article 8 establishes the notification procedure, requiring the Party of export to notify to the Party of import, in writing, the proposed transboundary movement. The notification must contain, at least, the information specified in Annex I, which includes: the taxonomic status, common name, point of collection or acquisition, and characteristics of recipient organism or parental organisms related to biosafety; the centers of origin and centers of genetic diversity, if known, of the recipient organism and/or the parental organisms and a description of the habitats where the organisms may persist or proliferate; a description of the nucleic acid or the modification introduced, the technique used, and the resulting characteristics of the LMO; and the intended use of the LMO or products thereof.

Article 10 establishes the decision procedure, which the Party of import must follow to either approve the import, with or without conditions, prohibit it, or request additional time or information. The basis for the decision must be a risk assessment carried out in a scientifically sound manner and in compliance with requirements contained in Article 15 and Annex III of the Protocol. In addition, the Parties may establish and maintain appropriate mechanisms, measures and strategies to regulate, manage and control risks identified

⁹⁴ Biosafety Protocol, Article 1.

⁹⁵ Biosafety Protocol, Article 3. Some categories of LMOs or transboundary movements were also excluded, either as general exclusions from the Protocol or as specific exclusions to the AIA procedures. *See, e.g.*, Biosafety Protocol, Article 5

⁹⁶ See, e.g., Biosafety Protocol, Article 7.

⁹⁷ See, e.g., Biosafety Protocol, Article 10.

⁹⁸ It should be noted that the scope of the AIA mechanism is narrower than that of the Protocol. LMOs in transit or destined for contained use, for instance, are not subject to the AIA mechanism.

in the risk assessment provisions. Moreover, in order to avoid or minimize potential adverse effects, a lack of scientific certainty does not prevent Parties from taking a decision.⁹⁹

LMOs destined for direct use as food, feed or for processing (FFP) are not subject to the AIA mechanism but rather to a set of simplified procedures. Article 11 establishes a multilateral information exchange process: where a Party makes a decision on domestic use of an LMO that may be exported for FFP, it must notify the Biosafety Clearing House within fifteen days and provide the information contained in Annex II. Annex II includes such information as the name and contact details of the applicant for a decision and of the authority responsible for the decision; the name and identity of the LMO; the description of the gene modification, the technique used, and the resulting characteristics of the LMO; the approved uses of the LMO; a risk assessment report; and suggested methods for the safe handling, storage, transport and use, including packaging, labeling, documentation, disposal and contingency procedures, where appropriate. As in the AIA mechanism, Article 11 provides that the lack of scientific certainty does not prevent Parties from taking a decision. With respect to decision making on import of LMO-FFPs, the Party of import may follow its own domestic regulatory framework.

Other trade-related measures in the Biosafety Protocol include the provision of trade with non-Parties and handling, packaging, identification and transport requirements. Article 24 does not prohibit transboundary movements of LMOs between Parties and non-Parties, but rather sets up a flexible system to ensure the environmental objectives of Protocol are not undermined. It requires trade with non-Parties to be consistent with the objective of the Protocol, though it does not require that they follow the Protocol's specific provisions, such as AIA. Moreover, though Article 24 foresees the possibility of these movements being subject to other agreements, it does not require them to be. Article 18 establishes handling, transport, packaging and identification/documentation requirements for LMOs subject to intentional transboundary movement within the scope of the Protocol. The provision encourages harmonized systems of identification (requiring, for instance, relevant international rules and standards to be considered and certain information to be included in the accompanying documentation) and also requires that transportation takes place under conditions of safety in order to avoid adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health.

Although one of the Protocol's primary measures, the AIA mechanism, is related to trade, the scope of the agreement is broader, and a number of other measures complement the trade-related provisions. The scope of the Protocol is established in Article 4, which refers to the transboundary movement, transit, handling and use of all living modified organisms that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health. Thus, the Protocol also contains measures regarding unintentional transboundary movements and the transit or passage of an LMO through the territory of a State, and its provisions apply to a variety of operations involving LMOs. ¹⁰⁰ In addition, the Protocol provides a framework for achieving adequate implementation. Article 20, for instance, establishes a Biosafety Clearing House to facilitate the exchange of scientific technical, environmental and legal information on LMOs, while also actively assisting Parties in implementing the Protocol.

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⁹⁹ The Protocol contains provisions that aim to simplify the dynamic of AIA when appropriate. For example, Parties may choose to apply their own domestic regulations rather than the Protocol, as long as they are consistent with the Protocol. In addition, a Party of import may indicate that certain transboundary movements of LMOs may commence during the notification process and that certain LMOs are exempted from the AIA procedure altogether. Finally, Parties to the Protocol may enter into bilateral, regional and multilateral biosafety agreements provided they are consistent with the objective of the Protocol and do not result in a lower level of protection.

¹⁰⁰ See, e.g., Biosafety Protocol, Articles 6 and 17.

Article 22 promotes implementation by requiring Parties to cooperate in the development and strengthening of human resources and institutional capacities in biosafety in developing countries. While no specific commitments are articulated, ¹⁰¹ a Compliance Committee was established and procedures were adopted under Article 34, which required the first meeting of the COP serving as the Meeting of the Parties to the Biosafety Protocol (COP-MOP) to develop cooperative procedures and institutional mechanisms to promote compliance and to address cases of non-compliance. The Compliance Committee may, taking into account the capacity of the Party in question, in particular that of developing countries, request or assist the Party in developing a compliance action plan, or invite the Party to submit progress reports on the measures it is taking to bring itself into compliance. ¹⁰² Depending on factors such as the cause, degree, type and frequency of non-compliance, the Committee may also recommend that the COP-MOP decide, *inter alia*, to provide financial or technical assistance, transfer of technology, training measures, or to issue a caution to the Party concerned. ¹⁰³ As a final step, and only in cases of repeated non-compliance, the COP-MOP may decide on supplementary measures, as it deems appropriate. ¹⁰⁴ However, it should be noted, that the COP-MOP has not yet adopted any such supplementary measures. Finally, Article 35 of the Protocol calls for an evaluation of the effectiveness of the Protocol to be undertaken at least every five years.

F. Stockholm Convention

i. Objectives and Overview of the Stockholm Convention

The Stockholm Convention is a global treaty focused on protecting human health and the environment from persistent organic pollutants (POPs). POPs are chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of living organisms, and are toxic to humans and wildlife. With the evidence of long-range transport of these chemicals to regions where they have never been used or produced and the consequent global threats they pose to human health and the environment, States recognized the need for global actions to reduce and eliminate releases of these chemicals. 107

The Stockholm Convention, which is the first global, legally binding agreement designed to protect human health and the environment from the harmful impacts of POPs, came into force in May 2004. In order to achieve its objective, the Stockholm Convention seeks to eliminate or restrict the production and use of intentionally produced POPs.¹⁰⁸ It also seeks to continue minimizing and, where feasible, ultimately

¹⁰¹ Nevertheless, following the adoption of the Biosafety Protocol, the Council of the Global Environment Facility (GEF) adopted the GEF Initial Strategy on Biosafety, which is aimed at assisting countries to establish national biosafety frameworks (NBFs) to implement the Protocol. Currently, besides running the Biosafety Clearing House, UNEP-GEF is managing a development project assisting 123 countries to develop a draft NBF and eight implementation projects with the goal of establishing operational NBFs.

¹⁰² COP-MOP I Decision BS –I/7 Section VI, (1)(d)(f)(g).

¹⁰³ *Id.* at Section VI, (2)(a) and (b).

¹⁰⁴ Id. at Section VI, 2(d).

¹⁰⁵ See POPS website, "Stockholm Convention on Persistant Organic Pollutants" (http://www.pops.int/).

¹⁰⁶ *Id*.

¹⁰⁷ See UNEP website, "Persistant Organic Pollutants" (http://www.chem.unep.ch/pops/).

¹⁰⁸ Some of the POPs initially covered by the Stockholm Convention include: aldrin (a pesticide applied to soils to kill termites, grasshoppers, corn rootworm, and other insect pests); chlordane (used extensively to control termites and as a broad-spectrum insecticide on a range of agricultural crops); and DDT (widely used during World War II to protect soldiers and civilians from malaria, typhus, and other diseases spread by insects – now applied against mosquitoes in several countries to control malaria).

eliminate releases of unintentionally produced POPs.¹⁰⁹ In addition, the Stockholm Convention requires Parties to develop strategies for identifying POPs stockpiles and wastes and to ensure that they are managed or disposed of in an environmentally sound manner.

ii. Trade-related and other Measures of the Stockholm Convention

In line with its objectives, the core measures of the Stockholm Convention are those that require eliminating and restricting the production and use of listed chemicals. The Convention contains trade-related measures to support these aims. For example, the Stockholm Convention requires Parties to limit trade in POPs to those countries that comply with the Convention's provisions, in order to ensure that all POPs existing or produced within the Parties are used and disposed of subject to its restrictions. Article 3, for instance, requires Parties to ban imports of listed chemicals, except if the import is from another Party and is destined for environmentally sound disposal or the chemical is covered by a specific exemption. Article 3 also requires all Parties to ban the export of listed chemicals to other Parties except for the purpose of environmentally sound disposal. In addition, Parties can export those chemicals to Parties subject to a specific exemption as well as to non-Parties that certify compliance with the Convention's provisions. In this regard, trade-related measures constitute an important supplementary element in promoting the protection of human health and the environment from POPs.

As mentioned above, the Stockholm Convention contains a wide range of measures to promote the environmentally sound management of POPs. Article 5, for example, requires Parties to take measures to reduce or eliminate releases from the unintentional production of POPs, including developing national action plans to identify, characterize and address the release of these chemicals and promote the development and use of substitute or modified materials, products, and processes. In addition, Article 6 requires Parties to take measures to reduce or eliminate releases from stockpiles and wastes – a significant measure in light of the large number of waste stockpiles and contaminated sites containing persistent pesticides and PCBs, particularly in the developing world.¹¹² The provision also calls for close cooperation with the Basel Convention to, *inter alia*, establish levels of appropriate POPs destruction and determine methods for their environmentally sounds disposal. Article 8 establishes the procedures for the listing of new chemicals under the Convention.

The core measures of the Stockholm Convention are established in the context of other measures that complement, reinforce, and balance them. Such measures include provisions on information exchange and public information, as well as technical and financial assistance. Article 9, for instance, mandates Parties to facilitate or undertake the exchange of information relevant to reduction or elimination of POPs, with the aim of facilitating the implementation of the control measures and of promoting the use of alternatives,

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¹⁰⁹ The unintentional production of POPs refers to POPs that are unintentional by-products of industrial and other processes, including dioxins and furans.

¹¹⁰ Thus far nine intentionally produced POPs are listed in Annex A (elimination) with only DDT listed in Annex B (restriction). As a dynamic agreement, however, the Stockholm Convention sets out a process whereby further chemicals can be added to the list for action, helping governments identify these chemicals and incorporating them into the appropriate treaty annexes. The Convention is also dynamic in that it recognizes that some of the covered chemicals are still widely used in developing countries and allows countries to get "specific exemptions" that enable them to eliminate production and use over time, as substitutes are phased in. For example, disease vector control is an acceptable use of DDT, though countries must comply with certain conditions, such as following World Health Organization guidelines.

¹¹¹ See Stockholm Convention, Article 3.2 (b). Once all specific exemptions for a POP chemical are eliminated, Parties would be required to prohibit trade in that chemical.

¹¹² According to the FAO, about 20,000 tons of obsolete pesticides are believed to be stockpiled in Africa, with perhaps another 80,000 tons in Asia and Latin America, and at least 150,000 tons in countries of the former Soviet Union.

and establishes a clearinghouse mechanism within the Secretariat to facilitate POPs information exchange. Article 10 calls on Parties to, within their capabilities, promote awareness of the risks of POPs, and Article 11 outlines the requirements to support and further develop international programmes for conducting and financing POPs research, taking into account the special needs of developing countries. Article 12 recognizes that timely and appropriate technical assistance in response to requests is essential and calls for the establishment of regional and subregional centers for capacity building and transfer of technology to assist Parties in fulfilling their obligations under the Convention, and Article 13 establishes a financial mechanism to ensure adequate and sustainable financial resources to enable Parties to do so. 113 Thus, traderelated measures are only an element of a broader framework of provisions established to pursue the goals established in the Convention.

Article 16 requires an evaluation of the effectiveness of the Convention to take place four years after the Convention's entry into force and periodically thereafter. Parties have agreed to complete the first effectiveness evaluation by the fourth meeting of the COP scheduled for 2009. Similar to the Rotterdam Convention, Article 17 calls for Parties to develop and approve procedures and mechanisms for addressing compliance issues. These are still under negotiation by the Parties.

¹¹³ The institutional structure of the Global Environment Facility will, on an interim basis, be the principal entity entrusted with the operation of the financial mechanism.

IV. Overview of MEA Trade-related Measures

Each of the MEAs discussed above contains a unique and integrated package of measures and policies that has been closely tailored with the aim of effectively achieving its environmental objectives. Given this, it is not surprising that both developed and developing countries have been demandeurs for the inclusion of trade-related measures in MEAs.¹¹⁴ During the negotiation of the Montreal Protocol, for instance, a number of developed countries supported trade-related measures as a necessary way to achieve the goals of the agreement.¹¹⁵ The inclusion of trade measures was considered to offer major incentives for non-signatory States to sign the agreement. Furthermore, there was concern that, without the trade measures, there would be economic incentives for non-Parties to increase production, damaging the competitiveness of the industries in the signatory States as well as decreasing the search for less damaging alternatives.¹¹⁶ During the negotiation of the Cartagena Protocol on Biosafety, on the other hand, it was developing countries that viewed trade-related measures as the "teeth" that would guarantee a strong instrument to meet their needs and concerns.¹¹⁷

Despite their distinct objectives and structure, trade-related measures in MEAs often serve similar functions and address similar challenges. Indeed, considering trade-related measures in reference to the functions they perform can help to ensure they are viewed within the overall context and framework of the MEAs. 118 As is clear from the analysis above, MEA trade-related measures often serve the following specific functions:

¹¹⁴ It should once again be noted, however, that MEAs do not include references to "trade measures" or "trade-related measures," though there may be informal references to these terms in discussions surrounding MEAs and their implementation. As mentioned in the introduction, though, MEAs do incorporate specific substantive or procedural provisions that may regulate or otherwise condition international trade as part of the package of instruments used to achieve their objectives – such provisions are the focus of this note.

¹¹⁵ For instance, Canada, Finland, New Zealand, and the United States took this position. Montreal Protocol negotiators justified the trade measures because depletion of the ozone layer is an environmental problem most effectively addressed on the global level.

¹¹⁶ See Benedick, supra note 23.

¹¹⁷ See Bail, Christoph et al (eds.), The Cartagena Protocol on Biosafety: Reconciling Trade in Biotechnology with Environment and Development? (2002).

¹¹⁸ Analyzing trade-related measures according to their *function or role* is not the only available approach. A number of commentators have developed useful typologies based on the nature or form of the trade-related measure. *See, e.g.*, Duncan Brack and Kevin Gray, "Multilateral Environmental Agreements and the WTO," Royal Institute of International Affairs and IISD, September 2003; and Ulrich Hoffman, "Specific Trade Obligations in Multilateral Environmental Agreements and Their Relationship with the Rules of the Multilateral Trading System," *Trade and Environment Review 2003*, UNCTAD, 2004.

- Regulating trade in certain species of animals and plants, or products derived from those species:
 CITES, for instance, establishes a permitting system for the import and export of specimens of certain wild animals and plants to ensure international trade in those species does not threaten their survival.
- Regulating trade in environmentally hazardous products or goods: The Basel Convention, for instance, contains provisions incorporating trade-related measures such as a prior informed consent mechanism, trade restrictions, and labeling and packaging requirements to address the risks to human health and the environment posed by transboundary movements of certain hazardous wastes and other wastes. Likewise, the trade-related measures in the Rotterdam Convention establish a framework for national decision-making processes relating to the import and export of toxic pesticides and other hazardous chemicals.
- Supporting the phase-out of certain substances: The trade restrictions in the Montreal Protocol, for example, are designed to supplement and support the phase-out schedules for various categories of ODS. The Stockholm Convention also contains provisions for the use of trade limitations to support measures eliminating and restricting the production and use of covered chemicals.¹²⁰
- Enhancing informed decision-making: Trade-related measures aimed at generating and providing information to decision-makers notification and prior informed consent requirements, for instance are fundamental in MEAs like the Rotterdam Convention, the Basel Convention and the Biosafety Protocol to enable the design of effective environmental strategies. Other types of trade-related measures that address information deficiencies include, for example, the obligation in the Basel Convention to label hazardous and other wastes subject to transboundary movement and to accompany shipments by a movement document.
- Encouraging standardized information systems: Information-related requirements often also serve the
 purpose of avoiding the proliferation of different standards, thus facilitating environmental protection.
 CITES, together with Resolution Conf. 12.3 (Rev. CoP14) adopted by the COP, for instance, directs
 Parties to follow a standard format and content requirements for permits and certificates. Similarly,
 the Biosafety Protocol requires Parties to follow its handling, transport, packaging and documentation
 requirements for covered organisms and products, and the Basel Convention has led to the harmonization
 of waste codes through the World Customs Organization.
- Avoiding "free-riding" and promoting a level playing field: For certain MEAs, one of the fundamental challenges is impeding non-Parties from taking advantage of environmental gains achieved through other Parties' commitments without making similar efforts. Trade-related measures can be significant incentives for countries to join the MEAs, thus also increasing their coverage and ensuring their effectiveness. The Montreal Protocol, which requires Parties to prohibit the import and export of controlled substances from/to non-Parties, is a good example of an agreement that achieved a large membership and important environmental goals. 121 However, Article 4 of the Montreal Protocol allows imports and exports of

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¹¹⁹ All the measures cited here as examples are described in detail in Section III.

¹²⁰ Article 3 of the Stockholm Convention, for instance, requires Parties to ban imports of listed substances, except if the import is from another Party and is destined for environmentally sound disposal or the chemical is covered by a specific exemption.

¹²¹ MEAs emphasize compliance over signature or ratification, however.

controlled substances from, or to, any non-Party if a meeting of the Parties determines that country to be in full compliance with the Protocol's control measures. 122

• Assisting in compliance and enforcement: Compliance mechanisms in MEAs generally focus on promoting and facilitating Parties' compliance, rather than penalizing non-compliance. A similar approach is found in the Montreal Protocol.

¹²² Comparable provisions that allow flexibility with non-Parties can be found in CITES, the Basel Convention, the Biosafety Protocol, and the Stockholm Convention.

¹²³ For an analysis of the particular nature of compliance mechanisms in MEAs, *see*, *e.g.*, WTO and UNEP Secretariats, "Compliance and Dispute Settlement Provisions in the WTO and in Multilateral Environmental Agreements," WT/CTE/W/191, June 2001.

¹²⁴ It is recognized that in many cases, when a State is in non-compliance, this is not because of a willful violation, but rather because of a lack of capacity to comply. Therefore, the initial approach for addressing non-compliance is through the provision of assistance, rather than through punitive measures.

V. Concluding Remarks

In the Doha Ministerial Declaration, adopted at the Fourth Ministerial Conference in November 2001, trade ministers agreed that "an open and non-discriminatory multilateral trading system, and acting for the protection of the environment and the promotion of sustainable development can and must be mutually supportive." Pursuant to paragraph 31(i) of the Doha Ministerial Declaration, WTO Members are presently engaged in negotiations, with a view to enhancing the mutual supportiveness of trade and environment, on the relationship between existing WTO rules and specific trade obligations set out in MEAs. Discussions have, *inter alia*, addressed the various types of trade-related measures established in a number of MEAs, and considered how these measures relate to the notion of "specific trade obligations."

The objective of the paper, as part of UNEP's work in promoting understanding and dissemination of information on trade and environment topics, is to contribute to ongoing negotiations at the WTO by providing a framework for an increased and more comprehensive understanding of trade-related measures in MEAs. In particular, in order for negotiations to identify concrete ways to enhance the mutual supportiveness of trade rules and MEAs, trade-related measures in MEAs must be understood in the context of their role in the distinct and balanced structure of each MEA.

As has been noted in discussions in the CTE, the wide variety of trade-related measures reflects the diverse environmental concerns they were designed to address. An adequate classification on the basis of criteria developed outside of the particular context of each MEA can thus be difficult to achieve. Understanding the various functions that trade-related measures perform within each MEA – as done in this note – can, however, enhance discussions.

In addition, the consideration of trade-related measures in the context of each MEA may be useful to further build on the synergies that already exist between the WTO and MEAs. As noted in CTE discussions, a number of features of MEAs contribute not only to their own effectiveness, but also to support international trade rules. Indeed, as the present note has shown, MEAs have widespread backing, and fulfill the international community's desire to cooperate multilaterally to address shared environmental and health concerns. Moreover, MEAs are based on science and thus mirror one of the WTO's fundamental approaches towards supporting objective, rather than arbitrary, rules.

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¹²⁵ See supra note 2, paragraph 6.