UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

ENVIRONMENT

UNCTAD Series on issues in international investment agreements



NOTE

UNCTAD serves as the focal point within the United Nations Secretariat for all matters related to foreign direct investment and transnational corporations. In the past, the Programme on Transnational Corporations was carried out by the United Nations Centre on Transnational Corporations (1975?1992) and the Transnational Corporations and Management Division of the United Nations Department of Economic and Social Development (1992?1993). In 1993, the Programme was transferred to the United Nations Conference on Trade and Development. UNCTAD seeks to further the understanding of the nature of transnational corporations and their contribution to development and to create an enabling environment for international investment and enterprise development. UNCTAD's work is carried out through intergovernmental deliberations, research and analysis, technical assistance activities, seminars, workshops and conferences.

The term "country" as used in this study also refers, as appropriate, to territories or areas; the designations employed and the presentation of the material do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. In addition, the designations of country groups are intended solely for statistical or analytical convenience and do not necessarily express a judgement about the stage of development reached by a particular country or area in the development process.

The following symbols have been used in the tables:

Two dots (..) indicate that data are not available or are not separately reported. Rows in tables have been omitted in those cases where no data are available for any of the elements in the row;

A dash (?) indicates that the item is equal to zero or its value is negligible;

A blank in a table indicates that the item is not applicable;

A slash (/) between dates representing years, e.g. 1994/95, indicates a financial year;

Use of a hyphen (?) between dates representing years, e.g. 1994?1995, signifies the full period involved, including the beginning and end years.

Reference to "dollars" (\$) means United States dollars, unless otherwise indicated.

Annual rates of growth or change, unless otherwise stated, refer to annual compound rates.

Details and percentages in tables do not necessarily add to totals because of rounding.

The material contained in this study may be freely quoted with appropriate acknowledgement.

UNCTAD/ITE/IIT/23

UNITED NATIONS PUBLICATION

Sales No. E.01.II.D.3

ISBN 92-1-112513-8

Copyright © United Nations, 2001 All rights reserved

IIA Issues Paper Series

The main purpose of the UNCTAD Series on issues in international investment agreements is to address concepts and issues relevant to international investment agreements and to present them in a manner that is easily accessible to end-users. The series covers the following topics:

Admission and establishment

Competition

Dispute settlement (investor-State)

Dispute settlement (State-State)

Employment

Environment

Fair and equitable treatment

Foreign direct investment and development

Home country measures

Host country operational measures

Illicit payments

Incentives

International investment agreements: flexibility for development

Investment-related trade measures

Lessons from the MAL

Most-favoured-nation treatment

National treatment

Scope and definition

Social responsibility

State contracts

Taking of property

Taxation

Transfer of funds

Transfer of technology

Transfer pricing

Transparency

Trends in international investment agreements: an overview

Preface

The secretariat of the United Nations Conference on Trade and Development (UNCTAD) is implementing a work programme on international investment agreements. It seeks to help developing countries to participate as effectively as possible in international investment rule-making at the bilateral, regional, plurilateral and multilateral levels. The programme embraces capacity-building seminars, regional symposia, training courses, dialogues between negotiators and groups of civil society and the preparation of a Series of issues papers.

This paper is part of that Series. It is addressed to Government officials, corporate executives, representatives of non-governmental organizations, officials of international agencies and researchers. The Series seeks to provide balanced analyses of issues that may arise in discussions about international investment agreements. Each study may be read by itself, independently of the others. Since, however, the issues treated closely interact with one another, the studies pay particular attention to such interactions.

The Series is produced by a team led by Karl P. Sauvant and Pedro Roffe. The principal officer responsible for its production is Anna Joubin-Bret who oversees the development of the papers at various stages. The members of the team include S. M. Bushehri, Patricia Mira Pontón, Aimé Murigande, and Jörg Weber. The Series' principal advisors are Arghyrios A. Fatouros, Sanjaya Lall, Peter T. Muchlinski, and Patrick Robinson. The present paper is based on a manuscript prepared by S.M. Bushehri and Cynthia Wallace. Substantive contributions were made by Jake Werksman. The final version reflects comments received from Victoria Aranda, Charles Arden-Clarke, Werner Corrales, William Dymond, Harry Gleckman, Felipe Jaramillo, Joachim Karl, Grace King, Mark Koulen, Barton Legum, Mansur Maximo Romero Jimenez, Homai Saha, Rupert Schlegelmilch, Chak Mun See, Sabrina Shaw, Marinus Sikkel, A.J.W. Van der Linde and Andreas R. Ziegler. The paper was desktop-published by Teresita Sabico.

Geneva, February 2001

Rubens Ricupero Secretary-General of UNCTAD

R Rungero

Acknowledgments

UNCTAD's work programme on international investment agreements is implemented by a team of UNCTAD staff members and consultants headed by Karl P. Sauvant, Khalil Hamdani and Pedro Roffe and including Marianela Bruno Pollero, S. M. Bushehri, Arghyrios A. Fatouros, John Gara, Anna Joubin-Bret, Sanjaya Lall,, Peter T. Muchlinski, Patricia Mira Pontón, Aimé Murigande, Cynthia D. Wallace and Jörg Weber. Administrative support is provided by Hélène Dufays-Budhdeo and Séverine Excoffier.

UNCTAD has carried out a number of activities related to the work programme in co-operation with other intergovernmental organizations, including the Secretariat of the Andean Community, l'Agence pour la Francophonie, the Inter-Arab Investment Guarantée Corporation, the League of Arab States, the Organization of American States, la Secretaria de Integración Económica Centroamericana and the World Trade Organization. UNCTAD has also cooperated with non-governmental organizations, including the German Foundation for International Development, the Centro de Estudios Interdisciplinarios de Derecho Industrial y Económico Universidad de Buenos Aires, the Consumer Unity and Trust Society — India, the Economic Research Forum — Cairo, the European Roundtable of Industrialists, the Friedrich Ebert Foundation, the International Confederation of Free Trade Unions, Oxfam, SOMO — Centre for Research on Multinational Corporations, the Third World Network, la Universidad del Pacífico, the University of the West Indies and World Wildlife Fund International.

Funds for the work programme have so far been received from Australia, Brazil, Canada, France, Japan, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom and the European Commission. Countries including China, Egypt, Guatemala, India, Jamaica, Morocco, Peru, Sri Lanka and Venezuela have also contributed to the work programme by hosting regional symposia. All of these contributions are gratefully acknowledged.

Table of contents

		P	age
Pre	face		iv
Acl	know	vledgements	v
Exe	cutiv	ve summary	1
INT	ΓRO	DUCTION	5
I.	EX	PLANATION OF THE ISSUE	7
II.	ST	OCKTAKING AND ANALYSIS	13
	Α.	General protection of the environment	14
		General references to the environment a. Provisions relating to the	14
		responsibility of Governments	15
		b. Provisions relating to the responsibility of TNCs	18
		Preserving national regulatory space for environmental protection	22
		3. Attracting FDI through a lowering of environmental standards	36
	B.	Transfer of environmentally sound technology	41
	C.	Transfer of environmentally sound	50

	1	Page
	NTERACTION WITH OTHER ISSUES AND CONCEPTS	67
DEVE	CLUSION: ECONOMIC AND ELOPMENT IMPLICATIONS AND CY OPTIONS	71
Refer	ences	83
	ed UNCTAD publications on transnational rations and foreign direct investment	91
Quest	ionnaire	103
	Boxes	
1.	Protection of the environment at	
2.	the national level The draft United Nations Code of Conduct	
3.	on the issue of environment The draft NGO Charter on	
4.	Transnational Corporations	
5.	General exceptions and environmental measures in international trade disputes	
6.	Challenging environmental measures under NAFTA	
7. 8.	The "pollution haven" hypothesis	
	on the transfer of environmentally sound technologies	42

		Page
9.	Agenda 21: selected references to TNC	
	responsibilities with respect to environmentally sound management practices	51
10.	The environmental chapter of the	. 31
	2000 OECD Guidelines	. 54
11.	ISO 14001 standards for environmental	
	management systems	. 57
12.	MIGA: investment guarantees and	
	environmental assessment	. 61
	Table	
1.	Interaction across issues and concepts	67

Executive summary

The issue of the environment touches all areas of human endeavour. Its preservation and sustainable utilization is an important component of development. Nonetheless, this issue has only recently caught the attention of national and international rule-makers. Therefore, it is increasingly beginning to find its way into a wide variety of international agreements. When it comes to international investment agreements (IIAs), however, mention of environmental protection and related matters has, to date, been largely absent. This may not be surprising, because IIAs might not be considered as the primary instruments with which to address environmental matters. Yet, linkages between environmental concerns and international investment rules do exist, including where there is intent to ensure that investment rules do not frustrate host countries' efforts to protect the environment. Moreover, IIAs can provide for a framework to encourage the transfer of clean technology and environmentally sound management practices to host countries, which could contribute to development objectives.

Since the present Series focuses on IIAs, this paper concentrates on the few such instruments containing environmental references. Nonetheless, where appropriate, other relevant international instruments are also discussed. The following are key issues that have been addressed in them: the general protection of the environment through general references to the desirability of safeguarding the environment; preserving national regulatory space for environmental protection and/or avoiding to attract foreign direct investment (FDI) through a lowering of environmental standards; and the transfer of environmentally sound technology and management practices.

IIAs mention the environment mostly by making reference to the need to protect the environment, sometimes linked to the principle of sustainable development. They address the issue in general terms, primarily in the preamble or general provisions. These references are typically expressed in hortatory language, often in the form of mere "string references", where the environment is simply mentioned in a clause along with other concerns. Beyond

such general references to the environment, and in the context of environmental regulation, provisions in IIAs sometimes take the form of assertions (or assurances) that the agreements' provisions will not be injurious to the environment or will not prevent the parties from regulating environmental matters. Alternatively, such provisions may actually affirm the right of a host state to regulate environmental matters. A close corollary to the last approach is that of urging compliance with already existing environmental legislation or international agreements and undertaking to not lower environmental standards in order to attract FDI. With respect to the latter, concerns go beyond the actual lowering of environmental standards, and include lax implementation of such standards, or halting improvements thereto. Yet, certain developments in IIAs could run counter to such assertions, affirmations and undertakings, for example, where IIAs provide for mechanisms through which private investors could directly challenge all governmental measures that affect their investments. Such challenges, or even the threat of a challenge, might discourage host countries from adopting or enforcing measures to protect the environment.

Going beyond these more general approaches, IIAs are sometimes designed in a manner that encourages transnational corporations (TNCs) to utilize more fully the potential they have to contribute especially to the transfer of clean technologies and environmentally sound management practices, particularly to developing countries. The wider diffusion and use of environmentally sound technologies, in part achieved through environmentally sensitive management, could help to reduce the damaging effects of certain activities. In this connection, the discussion in this paper also draws on the Rio Declaration and its Agenda 21, which is particularly significant in that it has informed — and been specifically referred to in — a number of important instruments since its adoption. However, where relevant provisions are included in IIAs, they are typically formulated in non-binding language. In addition, a few IIAs prohibit host countries from imposing requirements on firms to transfer technology. Such prohibitions, without safeguards or qualifications, could be construed to include transfer of environmentally sound technologies.

Environmental protection interacts with several other topics covered in this Series. In particular, there are interactions with admission and establishment, especially in terms of screening investments for their environmental impacts; with incentives geared to attract FDI; and the promotion of transfer of technology, of which environmentally sound technologies and possibly management practices are a sub-group. Another interaction arises in relation to takings of property, if protection granted in an IIA against expropriation is construed to encompass environmental regulation that could result in a loss of the value of a covered investment. In some instances, a further interaction might be with issues concerning social responsibility, a concept that includes core values with respect to the protection of the environment.

A number of options exist with respect to the way in which environmental matters could be dealt with in IIAs. Parties could choose not to address environmental protection issues. Secondly, an IIA may include general, hortatory provisions that stress the importance of environmental preservation. Thirdly, specific clauses that affirm or preserve the regulatory powers of host countries with respect to environmental protection could be included in IIAs. Equally, an IIA might contain carve-put clauses for environmental measures. Fourthly, parties could address environmental protection through provisions that oblige them not to lower standards in order to attract FDI. Finally, IIAs could include mandatory legal duties, addressed to actors in FDI, to observe certain environmental standards, including those related to environmentally sound technology and management practices, which could be provided for, or incorporated by reference, in the respective IIAs.

INTRODUCTION

The area of environmental concerns gained in importance in relations between host countries and TNCs over the decade of the 1990s. At that time, there was a growing awareness, on the part of countries, of the importance of environmental protection and the need for the restoration, in some countries, of degraded environments. Simultaneously, there was a heightened consciousness of the possible linkage between some of these concerns and the activities of TNCs, without however implying an inherent incongruence between measures taken by a host country to protect the environment and to attract FDI.

Environmental issues cover a broad scope of activities and are dealt with in a wide spectrum of instruments beyond those specific to FDI. The concept of environmental protection is wide, and includes among other issues, the quality of air, water and soil; the sustainable use of natural resources; human, animal and plant health; as well as macro- and micro-ecosystems. Environmental regulations cover all firms, domestic and foreign-based. It is recognized that what is good as regards TNCs is also good as regards domestic firms. However, in light of the specific objectives of this Series the present paper concerns itself only with the interface between the environment and FDI. Since few IIAs actually contain provisions that refer directly to the environment or environmental protection, this paper also cites environmental agreements with *direct* reference to FDI or TNCs, as the relevant provisions are useful to IIA negotiators grappling with the same concerns. This is all the more important as future IIA negotiators may well need to address environmental concerns.

Section I

EXPLANATION OF THE ISSUE

The internationalization of production of goods and services through FDI increases the likelihood of the extension of any related environmental damage to a greater number of countries and, therefore, to a larger part of the world's environment. At the same time, this process offers an opportunity for the improvement of the environment in many countries through the diffusion and use of environmentally sound technologies and management practices that are at the disposal of TNCs. Thus, the role that FDI and TNCs can play in abating environmental degradation and promoting sustainable development is of considerable importance.

Efforts with regard to environmental preservation are taken primarily at the national level through regulation that apply mandatory, statute based, rules of conduct (UNCTAD, 1999a, p. 291 and UNCTAD, 1992, pp. 235-237). Increasingly, however, private enterprises and non-governmental organizations (NGOs) are also making efforts to contribute to the preservation of the environment. At the international level, and with particular reference to IIAs, the question arises of how such instruments have addressed the responsibility of the relevant actors concerning environmental protection. Several key issues can be identified, which have informed discussions and provisions that address the interface between the environment and EDI:

• General protection of the environment. An important component of development is environmental welfare and sustainability. It is now generally accepted that, to be effective, environmental protection — from reversing environmental degradation to increasing environmental welfare through the development and use of environmentally sound technologies and management practices — is a matter that has to be pursued by both public and private actors at all levels. At the international level, cooperation on the preservation of the environment

has included efforts to develop working models of sustainable development that integrate economic, social and environmental concerns (UNCTAD, 1992). The pace and breadth of such efforts increased significantly during the 1990s, highlighting the importance of environmental preservation in general.

• Preserving national regulatory space for environmental protection. From a regulatory perspective, the need to accommodate national environmental concerns could sometimes be construed to conflict with obligations contained in IIAs. Without the preservation of some flexibility to regulate for the protection of the environment, therefore, a number of measures could be construed as triggering a State's breach of its obligations under IIAs.² One way in which the general protection of the environment can be addressed in IIAs is, therefore, to ensure that Governments seeking to protect the environment cannot be challenged as acting contrary to their obligations under IIAs, i.e. have sufficient national regulatory space for environmental protection.

Discussions on international investment rule-making also include concerns relating to environmental measures that might be seen as constituting arbitrary means of discriminating against foreign investors. Home countries may also be seen as attempting to impose their environmental standards beyond their own borders through legislation aimed at the operations of their nationals abroad. (The latter issue of extra-territorial measures is being discussed in more detail in another paper in this Series entitled Home Country Measures — UNCTAD, forthcoming a.) Moreover, concerns do not necessarily relate solely to actual environmental damage, but could also encompass serious threats or irreversible damage to the environment under the "precautionary principle". 3

 Attracting FDI through a lowering of environmental standards. All countries seek to attract FDI because of the tangible and intangible assets it can bring to a country to advance its development process. In their eagerness to attract such investment, host countries may sometimes be tempted to lower their environmental standards to increase their locational advantages to TNCs — or TNCs may sometimes suggest that such a lowering would positively influence their locational decision making. The issue goes beyond the actual lowering of environmental standards. The non-application or lax implementation of such standards might have the same effect. Equally, there may be concerns that countries would not improve their environmental regulations out of concern for the impact this might have on their locational advantages to TNCs. This "chilling-effect" is therefore another component of the concept of the relaxation of environmental standards in the interest of attracting FDI.

Transfer of environmentally sound technology and management practices. Beyond these general questions, a key issue concerns the extent to which the transfer of environmentally sound technology and management practices to developing countries can be encouraged. Today, there is growing recognition that protecting the environment requires that the entire range of production processes and products be environment-friendly. One problem in this respect is the continued use, in many countries, of obsolete, environmentally damaging industrial production techniques and management practices. The response of TNCs to environmental issues differs in one important respect from that of uninational firms. In addition to managing the environment through pollution-abatement practices, environmental management systems, education and training, TNCs must also manage these issues in relation to affiliates located in different countries. Hence, an added dimension for them is cross-border environmental management, which is a key issue in assessing their impact on the environment in host developing countries. Thus, the specific decisions that TNCs take with regard to the application and transfer of environmentally sound technologies and management practices can play an important role in the overall environmental health of a host country. One recent study showed that it is even cost-effective to do so (UNCTAD, 1999a).

One possible spin-off of such transfers is a "demonstration effect" on other enterprises, as expressed in the Commentary on the recent 2000 OECD Guidelines for Multinational Enterprises (OECD Guidelines). It states that TNCs "often have access to technologies or operating procedures which could, if applied, help raise environmental performance overall. Multinational enterprises are frequently regarded as leaders in their respective fields, so the potential for a 'demonstration effect' on other enterprises should not be overlooked" (OECD, 2000b, p. 9). 4

* * *

The key issues with the most direct relevance to the interaction between FDI and TNCs on the one hand and environmental protection on the other, have been sketched out above. Several other issues have also received attention, including assessing the environmental impact of production and environmental financial and non-financial reporting standards. Typically, however, these issues are not elaborated in IIAs and therefore, will only be briefly documented in this paper. Finally, issues related to the implementation and enforcement of environmental obligations in IIAs are not addressed here. (For a general discussion of such issues, see UNCTAD, 2000b.)

Notes

- The activities of NGOs include field projects, training, education, research and publication in the area of environmental protection and conservation. With respect to publications that deal with the interface between FDI and the environment, see, for example, WWF (1999a). For other relevant WWF publications, see, http://www.panda.org/resources/publications.
- An example is a measure requiring a foreign investor to invest in (and transfer) technology to clean toxic seepage that was not caused by that particular investor. Although such measures usually provide for tax breaks, they are not incentives, given that there is no option on the part of the investor to refuse the mandatory clean-up requirement. Other examples include requiring, for the purposes of the renewal of operating licenses, the use of environmentally sound resource extraction techniques, which would reduce the profit margins of a foreign investor; changing land use regulations in such a way as to reduce the value of the property of a foreign investor significantly; and significantly reducing fishing quotas or revoking licenses to protect fisheries, flora or fauna. The issue of regulatory takings is relevant in this context.
- Under this principle, measures are taken to counter potential environmental damage, the risk of which can not be accurately assessed due to scientific uncertainty or incomplete data. The principle and its implications under international law are beyond the scope of this paper. For a detailed discussion offering different views, see Sands, 1995, and Bodansky, 1991.
- See also Chudnovsky and López, 1999.

Section II

STOCKTAKING AND ANALYSIS

As previously mentioned, environmental concerns are largely addressed at the national level (box 1). However, countries are now increasingly pursuing ways to enhance environmental protection and the contribution of TNCs thereto at the international level.

Box 1. Protection of the environment at the national level

Efforts to address environmental concerns at the national level often involve Governments, enterprises and civil society. With respect to governmental regulation, many countries have adopted measures related to the protection of the environment. Their scope and level of sophistication varies, which creates stark differences between national frameworks for the protection of the environment. Most Governments rely on regulatory frameworks that apply mandatory, statute based, rules of conduct, as well as the imposition of taxes and charges. Increasingly, however, some positive incentives and market-based policies are introduced, which include reliance on environmental impact assessment studies and providing for financial guarantees against environmental damage.

Complementing governmental regulation, some enterprises, including TNCs and industry groupings, have also contributed to efforts regarding environmental protection through the adoption and maintenance of relevant corporate/industry codes of conduct. Such codes are internal rules and, as such, are typically not enforced by national authorities. Through the adoption and observance of these environmentally friendly codes of conduct throughout their operations, TNCs — by improving their own environmental performance — can enhance the environmental performance of their host countries and, in particular, make up for implementation deficits that might exist in some countries in which they operate. In addition, TNCs are quite familiar with the need for environmental assessments in project planning, design and implementation, and often undertake such studies themselves.

Indeed, efforts at the national level are being reflected in instruments at the international level. Interestingly, though, while many investment related regulatory developments progress internationally from bilateral to regional, and regional to multilateral levels, this is typically not the case with respect to environmental matters. In fact, bilateral investment treaties (BITs) are largely silent on the issue of the protection of the environment. Instead, the efforts at the national level in this respect have been internationalized primarily in regional and multilateral fora.

The remainder of this section takes stock of how IIAs have addressed the issue of environmental protection. In doing so, attention is also being given to international agreements that, although not IIAs, address TNCs specifically. This is particularly the case in the 1992 Rio Declaration on Environment and Development and the related Agenda 21 (UNCED, 1993) adopted by the 1992 United Nations Conference on Environment and Development. This international commitment contains a number of provisions directly addressed to TNCs and explicitly meant to protect the environment in the context of FDI. Its clauses relate to global corporate environmental management, environmentally sound production and consumption patterns, risk and hazard minimization, full-cost environmental accounting, and international environmental support activities. ¹

A. General protection of the environment

1. General references to the environment

References meant to ensure the general protection of the environment take a number of forms in IIAs, including "string" references and other similar hortatory language in the preamble

(Box 1, concluded)

Moreover, the involvement of civil society, including NGOs, coupled with increasing consumer demand for environment-friendly products and processes, are factors that are providing additional incentives for protection of the environment.

Source: UNCTAD.

or general provisions that merely mention the issue. They address both Governments and enterprises.

a. Provisions relating to the responsibility of Governments

An example of a string-type reference addressed to Governments is that appearing in the Treaty Establishing the Latin American Integration Association.² Article 14 of the Treaty exhorts member countries to "take into consideration, among other matters, scientific and technological cooperation, tourism promotion and preservation of the environment".

During the negotiations of the Multilateral Agreement on Investment (MAI), certain preambular language had been proposed by the Chairperson of the negotiations as part of the "package" of environmental provisions, as follows:

"Recognising that investment, as an engine of economic growth, can play a key role in ensuring that economic growth is sustainable, when accompanied by appropriate environmental and labour policies; ...

Re-affirming their commitment to the Rio Declaration on Environment and Development, and Agenda 21 and the Programme for its Further Implementation, including the principles of the polluter pays and the precautionary approach; and resolving to implement this Agreement in a manner consistent with sustainable development and with environmental protection and conservation; . . . ". 3"

Notes that accompany the MAI Draft Negotiating Text suggest there was still considerable disagreement among the negotiators as to whether these provisions had struck the right balance between the investment liberalization objectives and the various environmental instruments and principles cited. 4

References to environmental preservation have also been included in general provisions of other instruments. In the Fourth ACP-EEC Convention (Lomé IV), under article 77, actual mention is made of investment in connection with environmental concerns:

"In order to facilitate the attainment of the industrial development objectives of the ACP States, it is important to ensure that an integrated and sustainable development strategy, which links activities in different sectors to each other, is evolved. Thus sectoral strategies for agricultural and rural development, manufacturing, mining, energy, infrastructure and services should be designed in such a way as to foster interlinkages within and between economic sectors with a view to maximizing local value added and creating, where possible, an effective capacity to export manufactured products, while ensuring the protection of the environment and natural resources.

In pursuit of these objectives the Contracting Parties shall have recourse to the provisions on trade promotion for ACP products and private investments, in addition to the specific provisions on industrial cooperation".

Here, though a binding agreement, Lomé IV does not include mandatory environmental provisions. Even the "shall" language is not linked to a clearly identifiable obligation but only indicates "recourse" to other provisions.

Lomé IV was replaced in 2000 by the Cotonou Agreement, which introduces a number of clauses that link economic development and the environment. The link, more specifically, between FDI and the environment in the Cotonou Agreement may not be apparent at first glance. It is provided for, however, at the outset, in article 1 of the Agreement entitled "Objectives of the partnership". Article 1 states that efforts to integrate "the ACP countries into the world economy in terms of... private investment", which, in the context of this Agreement, includes FDI, shall apply and integrate, at every level, the "principles of sustainable management of natural resources and the environment" (Cotonou, 2000). While the number of references with regard to environmental protection have increased significantly in this instrument, they nevertheless comprise statements of objectives, political commitments on cooperation and general references to the environment.

An example of a provision with stronger language in article 51(1)(b) of the Treaty for the Establishment of the Economic Community of Central African States, where its member States have agreed "to arrange for an appropriate application of science and technology in the development of agriculture ... and preservation of the environment; ...". It should be noted that, while the provision is in mandatory language, its effectiveness might be diminished to the extent that the obligation extends only to the arrangement for appropriate application of science and technology.

IIAs occasionally go beyond general references and address environmental protection in more detail.

An example including particulars on the environment can be found in the Cotonou Agreement. Article 32 entitled "Environment and natural resources", provides for cooperation in relation to the protection of specified areas of the environment. According to the principles that underlie the Agreement, these must be taken into account in all joint efforts by the Parties, including efforts to channel FDI to ACP countries. It is interesting to note that the Agreement also takes into account the special needs of some of the Cotonou partners.

In stronger language, the Convention on Environmental Impact Assessment in a Transboundary Context, signed by over 25 European countries, Canada and the United States, provides, in article 2(1), that:

"1. The Parties shall, either individually or jointly, take all appropriate and effective measures to prevent, reduce and control significant adverse transboundary environmental impact from proposed activities" (ICEL, 1995, p. 12).

While this Convention is not an IIA, its significance in terms of FDI – in the context of transboundary environmental harm – should not be overlooked. This is because according to its article 1(v), ... "Proposed activity" means any activity or any major change to an activity subject to a decision of a competent authority in

accordance with an applicable national procedure" (ibid.), a definition which is broad enough to include activity arising from FDI.

b. Provisions relating to the responsibility of TNCs

Some international instruments also address directly, through general references, the responsibility of enterprises concerning the environment. An example of a string reference is furnished by the original 1976 and revised 1991 OECD Guidelines, which were the precursors to the 2000 OECD Guidelines. Enterprises were exhorted, under "General Policies" (paragraph 2), to "give due consideration to [member] countries' aims and priorities with regard to economic and social progress, including industrial and regional development, the protection of the environment and consumer interests, the creation of employment opportunities, the promotion of innovation and the transfer of technology". ⁷

In the 2000 OECD Guidelines, the string reference was replaced by a dedicated (albeit one-line) paragraph 1, which, again under "General Policies", states:

- "... enterprises should:
- 1. [c]ontribute to economic, social and environmental progress with a view to achieving sustainable development; ..." (OECD, 2000a, p. 3).

Paragraph 2 of the Commentary on the 2000 OECD Guidelines, under the heading "Commentary on General Policies", unambiguously states that "[o]beying domestic law is the first obligation of business" (OECD, 2000b, p. 3). Thus, the recommendations seek to promote corporate action and results that go beyond those envisioned under domestic law. This demonstrates how the Guidelines have evolved on the subject of environmental protection. The Guidelines are addressed to TNCs, not to Governments. They are non-binding commitments. Nevertheless, it should be noted that the 2000 OECD Guidelines' implementation procedures — an important component of the instrument — were strengthened as compared to its predecessors.

Section V of another OECD instrument, the Principles of Corporate Governance, 8 states that one of the responsibilities of a company's board is "to implement systems designed to ensure that the corporation obeys applicable laws, including tax, competition, labour, environmental, equal opportunity, health and safety laws".

Beyond general references, provisions in IIAs sometimes address, with some specificity, the responsibility of TNCs with respect to the environment. The draft United Nations Code of Conduct on Transnational Corporations does so in some detail (box 2).

Box 2. The draft United Nations Code of Conduct on the issue of environment

In its section on the "Activities of Transnational Corporations", subsection "Economic, financial and social", paragraphs 41-43 deal with "Environmental protection":

"Transnational corporations shall/should carry out their activities in accordance with national laws, regulations, administrative practices and policies relating to the preservation of the environment of the countries in which they operate and with due regard to relevant international standards. Transnational corporations shall/should, in performing their activities, take steps to protect the environment and where damaged to [restore it to the extent appropriate and feasible] [rehabilitate it] and should make efforts to develop and apply adequate technologies for this purpose.

Transnational corporations shall/should, in respect of the products, processes and services they have introduced or propose to introduce in any country, supply to the competent authorities of that country on request or on a regular basis, as specified by these authorities, all relevant information concerning:

Characteristics of these products, processes and other activities including experimental uses and related aspects which may harm the

1

NGOs have been particularly active in addressing environmental matters. An example is the "Principles" of the Coalition for Environmentally Responsible Economies (CERES), a document that was drafted by an investor grouping. The endorsers of the CERES Principles affirm in the introduction, their "belief that corporations have a responsibility for the environment, and must conduct all aspects of their business as responsible stewards of the environment by operating in a manner that protects the Earth". This includes a pledge to "update ... practices constantly in light of advances in technology and new understandings in health and environmental science" (ibid.). The document highlights the commitment to reduce or eliminate damage to certain areas of the environment, such as the biosphere and natural resources. In addition, certain practices related to waste disposal, energy conservation, human health hazards, production processes and products and their relevant management practices, environmental restoration, and information management are addressed. While the CERES Principles address TNCs indirectly, the draft NGO Charter on Transnational Corporations prepared by The People's Action Network to Monitor Japanese TNCs, does so directly, in a section entitled "Protection of nature, the environment and natural resources" (box 3).

Box 2 (concluded)

environment and the measures and costs necessary to avoid or at least to mitigate their harmful effects;

Prohibitions, restrictions, warnings and other public regulatory measures imposed in other countries on grounds of protection of the environment on these products, processes and services.

Transnational corporations shall/should be responsive to requests from Governments of the countries in which they operate and be prepared where appropriate to cooperate with international organizations in their efforts to develop and promote national and international standards for the protection of the environment".

Source: UNCTAD, 1996, vol. I, pp. 169-170.

Box 3. The draft NGO Charter on Transnational Corporations

- "13. The TNC shall take full account of its effect and impact on the environment and natural resources and fully conform to national/ local laws and regulations regarding protection of the environment and the ecosystem, and the conservation of natural resources in the country/region where it operates while conforming to the relevant international standards. When doing so, the TNC shall observe the following:
 - Implement an environmental assessment and follow up with a review.
 - (2) Establish an environmental/conservation policy and guideline and develop a pro-environmental management system.
 - (3) Freely disclose information on the company's environmental policy.
- 14. When any environmental destruction or other negative impact due primarily to the operations of the TNC, it shall take the appropriate measures including compensation for the damage caused by the environmental damage and restore the environment to its original state".

Source: UNCTAD, 2000a, vol. V, p. 403.

Thus, these instruments reflect that the responsibility of TNCs with respect to environmental protection goes beyond compliance with relevant national or international standards. Responsibilities extend to, among others, the development and maintenance of best practices on environmental restoration, conservation, risk and impact assessment and information dissemination, as well as cooperation with national authorities.

* * *

The preceding discussion shows that a limited number of IIAs address environmental protection issues through general references addressed either at Governments or TNCs. The language is mostly hortatory but, in some cases, mandatory language has been used. The remainder of this sub-section turns to more specific issues that arise in the context of IIAs concerning governmental measures that affect the environment.

2. Preserving national regulatory space for environmental protection

The protection of the environment requires a systemic undertaking by all actors concerned. With respect to Governments, such an undertaking typically comes through environmental regulation. The ability to take environmental measures is an issue addressed in some IIAs.

Sometimes the language of an agreement simply provides that its provisions should *notprevent* the parties from regulating their own environment. For example, the 1992 North American Free Trade Agreement (NAFTA, article 1114, paragraph 1) stipulates that:

"Nothing in [Chapter Eleven on investment] shall be construed to prevent a Party from adopting, maintaining or enforcing any measure otherwise consistent with this Chapter that it considers appropriate to ensure that investment activity in its territory is undertaken in a manner sensitive to environmental concerns".

Similar language is contained in the 1994 World Trade Organization (WTO) General Agreement on Trade in Services (GATS, article XIV: General Exceptions) and in article G-14(1) of the 1996 Canada-Chile Free Trade Agreement, which actually uses the NAFTA language *verbatim*.

Other agreements go further to *affirm* the right of a host state to regulate environmental matters. In other words, the same substantive right can be expressed in a more positive manner,

as was recommended for inclusion in the MAI Draft Negotiating Text by the Chairperson of the negotiations:

"A Contracting Party may adopt, maintain or enforce any measure that it considers appropriate to ensure that investment activity is undertaken in a manner sensitive to health, safety or environmental concerns, provided such measures are consistent with this agreem ent".

Both of the above treaty texts fall short of using mandatory language to oblige a party to take the measure described. However, they also appear to limit the scope of the "guarantees" or of the "affirmative right" to regulate, by requiring that measures be otherwise "consistent" with an IIA's substantive obligations.

An example of the right to regulate on environmental protection, free of this conditionality, is found in article 18 of the 1994 Energy Charter Treaty (ECT) on sovereignty over energy resources:

"Each state continues to hold in particular the rights to decide the geographical areas within its Area to be made available for exploration and development of its energy resources, the optimalization of their recovery and the rate at which they may be depleted or otherwise exploited, ... and to regulate the environmental and safety aspects of such exploration, development and reclamation within its Area ...".

The legal nature and the limited scope of the first two examples notwithstanding, all three examples underline the negotiators' intent not to unduly restrict, or even discourage, the discretion of Governments to regulate investment activities for environmental purposes.

The Tratado de Libre Comercio entre Centroamérica y República Dominicana, though not an IIA, illustrates that obligations

to adopt measures to assure the observance of domestic environmental legislation, with specific reference to investors, can exist as part of a binding agreement. This Treaty, while specifically excluding environment from the scope of the application of its investment chapter (Chapter IX, article 9.15), provides that:

"Each Party shall adopt, maintain or take whatever measures, consistent with this chapter, that it considers appropriate to assure that the investments in its territory observe the legislation in matters of the environment ..." [author's translation].

However, the conditionality — "consistent with this chapter" — still limits a broader application. Moreover, the obligation extends to measures that each party considers appropriate, which implies that each party retains wide discretion in addressing the observance of its existing environmental regulation by investors. Thus, the practical effect of the provision to ensure the protection of the environment depends upon the commitment of the parties to the environment, within the confines of the legal structure of the chapter.

Another approach is evident in the BIT between Costa Rica and the Netherlands, where an investment is covered under the agreement if it has been made "in accordance with the laws and regulations" of the host country, which includes "its laws and regulations on ... environment" (article 10). Here, compliance with, *inter alia*, environmental laws, is an explicit prerequisite for the application of the BIT to an investment. (Presumably however, such an explicit reference in not needed when a treaty refers to "in accordance with laws and regulations" of the host country, as these include also those on the environment.) Upon entering as an investor, all environmental laws have to be observed and, it goes without saying, that the new legislation will likewise have to be adhered to in cases in which a duly qualified investment under article 10 is confronted with a subsequently enacted, more stringent environmental regulation.

The *inclusion* of the right to regulate for environmental protection in an IIA often actually takes the form of certain *exclusions* or general exceptions, whereby environmental matters are carved

out of an agreement and are thereby not subject to its provisions. This can provide a legal basis for justifying investment-related environmental measures that might otherwise be precluded by the agreement. Articles XX of the General Agreement on Tariffs and Trade (GATT) and XIV of GATS provide good examples of direct and indirect implications for TNCs, not only in the area of trade in goods and services, and investment in services (e.g. article XVI.2(f) of the GATS), but also in investment activity generally. Both the GATT and the GATS, while safeguarding their wellentrenched principle of non-discrimination, allow an exception for measures "necessary to protect human, animal or plant life or health" (WTO, 1995, p. 455). However, they are not to be "applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same [GATS: "like" (ibid., pp. 296-297)] conditions prevail, or a disguised restriction on international trade [GATS: "trade in services"]" (ibid.).

At the same time, NAFTA's article 2101 provides that:

"GATT Article XX and its interpretative notes, or any equivalent provision of a successor agreement to which all Parties are a party, are incorporated into and made part of this Agreement. The Parties understand that the measures referred to in GATT Article XX(b) include environmental measures necessary to protect human, animal or plant life or health, and that GATT Article XX(g) applies to measures relating to the conservation of living and non-living exhaustible natural resources" (ILM, 1993a, p. 699).

This whole area of general exceptions is important in that it has been a principal mechanism for dealing with environmental matters where they appear in IIAs and other agreements with environmental components or ramifications. Thus, measures under environmental exceptions, whether they are based on multilateral environmental agreements (box 4) or more general environmental objectives, provide a kind of safety valve for environmental protection in the context of investment and trade liberalization agreements.

Box 4. Multilateral environmental agreements

Multilateral environmental agreements (MEAs) need to be specifically mentioned, since the potential for conflict between MEAs and international investment rules may have been heightened by the use, in some MEAs, of mechanisms that seek to require or promote the transfer of environmentally friendly technologies, to regulate access to and investment in natural resources, and to stimulate investment in particular countries or categories of projects. Each of these initiatives may require individual states or international organizations to promote certain kinds of investments or investors for environmental purposes, in a way that may directly or indirectly discriminate on the basis of country of origin (Werksman and Santoro, 1998).

Faced with concerns about potential conflicts with trade rules, the NAFTA parties have agreed that, should any conflict arise between their investment or trade obligations under that agreement and "specific trade obligations" set out in selected MEAs, the obligations in these MEAs "shall prevail" to the extent of the inconsistency, provided that, where a party has a choice among equally effective and reasonably available means of complying with such obligations, the party chooses the alternative that is the least inconsistent with the other provisions of this Agreement (article 104, paragraph 1). specific exception would not apply, however, unless it is shown that the party defending the measure, if faced with an "equally effective and reasonably available means of complying" with its obligation under the MEA, has chosen "the alternative that is the least inconsistent" with the NAFTA (ibid.). This explicit subordination of an IIA to an MEA was unprecedented when the NAFTA text was agreed. It reflected the recognition, by the parties, of the importance of these particular MEAs, the wide support these agreements have received from the international community, and the very specific nature of the trade measures that they authorize. The NAFTA exception is, however, drawn very narrowly. It applies only with respect to specified treaties and would not extend to any investment (or trade-related) measures that a party might choose to use to meet its international environmental commitments. Furthermore, it appears to place the burden of proving that the measure was the "least trade inconsistent" measure possible, on the responding party (Johnson and Beaulieu, 1996).

Source: UNCTAD.

These exceptions allow a country the opportunity to defend a challenged environmental measure that might otherwise have been found to violate an IIA. It should be noted, however, that, in the context of a formal dispute, when exceptions have been invoked, they have been interpreted narrowly by dispute settlement bodies. For example, the use of exceptions in the context of GATT disputes panel proceedings have led to the conclusion that, generally, such clauses have been strictly construed (Hudec, 1993).

This conclusion also holds with specific reference to the application of general exceptions clauses to environmental measures in the context of not only the GATT, but also the 1988 Canada-United States Free Trade Agreement (the precursor to NAFTA) (box 5). Thus, the concern arises as to whether or not general exceptions provide for an adequate protection against possible challenges to measures taken to protect the environment.

Box 5. General exceptions and environmental measures in international trade disputes

There are no provisions in GATT directly prohibiting member countries to enact environmental protection measures. A number of GATT articles are, however, relevant to such measures. These include article I on most-favoured-nation treatment, article III on national treatment on internal taxation and regulation and article XI on the general elimination of quantitative restrictions, as well as certain sections of article XX on general exceptions.^a Specifically, article XX, in its relevant parts, states that:

"Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:

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

/

Box 5 (continued)

... (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption (WTO, 1995, p. 455)".

Thus, with particular reference to environmental measures, paragraphs (b) and (g) of article XX allow WTO Members to adopt GATT-inconsistent policy measures provided that the measures do not result in arbitrary or unjustifiable discrimination between countries where the same conditions prevail and, do not constitute disguised restriction on international trade (general requirements of article XX).

In general, the interpretation of GATT panels in disputes where parties have sought to rely on paragraphs (b) and (g) of article XX to justify their measures have focussed on the terms "necessary" in paragraph (b) and "relating to" in paragraph (g). For example, the GATT Panel on Section 337 of the U.S. Tariff Act defined the term "necessary" in paragraph (b) in a two-level analysis. First, it decided that "necessary" implies that no GATT-consistent measure could reasonably be undertaken. Second, it held that the measure undertaken had to be shown as having the "least degree of inconsistency with other GATT provisions". In the United States-Mexico Tuna-Dolphin case, c the panel held that the necessity of the protective measure related to the product and not the production method, and further, that an unilateral, extraterritorial measure did not benefit from the article XX (b) exception.

With respect to article XX (g) of the GATT, the panel in the *Herring and Salmon*^d dispute held that a measure "relating to" conservation would be justifiable under article XX(g) only if it is primarily aimed at conservation. A follow-up case was submitted to a dispute settlement panel under the Canada-U.S. Free Trade Agreement, which incorporated into the Agreement the relevant GATT articles. Here, the CUSFTA Panel^e concluded that the measure in question should not be broader in scope or application than necessary for achieving the specific conservation aims to which it relates.

/...

Box 5 (continued)

Thus, under the jurisprudence of GATT and CUSFTA panels, no contested measure was found to be either "necessary" or "relating to" environmental protection. The general requirements of article XX were analyzed implicitly through the legal definitions of the terms "necessary" and "relating to", but were not specifically addressed.

However, the WTO Appellate Body (AB), in its first decision on the exception under article XX (g) in the *Standards for Reformulated Gasoline* case, provided an alternative interpretation of article XX. The AB noted that the proper construction of that article required that a balance be struck, on a case-by-case basis, between, on the one hand, the rights and obligations of the parties to market access and, on the other hand, their rights and obligations to protect the environment. The AB devised a two-tiered analysis for article XX of the GATT, under which it first decides whether provisional justification by reason of characterization of the measure under XX (g) exists, and second, if the same measure, on its face or in its application, fulfils the general requirements of article XX.

Here, the AB stated that a measure would qualify under paragraph (g) if it had a "substantial relationship" to the conservation of natural resources. It further clarified that this would not include measures that are "incidentally or inadvertently aimed at" conservation of natural resources.

The AB followed the analysis introduced in the *Gasoline* case in the *Import of Shrimp Products* case. The *Shrimp Products* case clarified that in making the determination on whether a measure is justified under paragraph (g) of article XX, "the treaty interpreter essentially looks into the relationship between the measure at stake and the legitimate policy of conserving exhaustible natural resources" (ibid., paragraph 135). Thus, the general design and the structure of the measure should not be "disproportionately wide in its scope and reach in relation to the policy objective of ... conservation" (ibid., paragraph 141); that is, the means should be, "in principle, reasonably related to the ends" (ibid.). The AB further reiterated that it is not enough for a measure to be "fair and just on its face", but also that it must not be "actually applied in an arbitrary or unjustifiable manner". The AB also

/ . . .

Box 5 (continued)

held that unilaterally imposing conditions on trading partners to "adopt essentially the same policies" or, treating trading partners differently in terms of time limitations to comply with regulations or the transfer of the technology necessary for such compliance, constitutes unjustified discrimination. Moreover, in making reference to article X:3 of the GATT 1994, which "establishes certain minimum standards for transparency and procedural fairness in the administration of trade regulations", the AB held that where authorities administer regulations and procedures without regard to the requirements of article X:3, such treatment could constitute "arbitrary discrimination" between countries where the same conditions prevail, and thus be contrary to the general requirements of article XX.

As the preceding cases indicate, the WTO AB is adopting a less narrow interpretation of article XX (g) than previous GATT panels. In so doing, the AB has emphasized the need to maintain a balance between the right to invoke the Exceptions provisions, on the one hand, and the rules on market access, on the other hand. In interpreting the general requirements of article XX, the AB was locating this "line of equilibrium". These rulings explicitly recognize that it was not the task of the panel or the AB to question a country's environmental standards or to challenge a country's right to promote environmental goals; the examination was restricted to whether these objectives were carried out in a discriminatory manner.

In conclusion, while this development in the WTO jurisprudence lessens the burden for countries to justify, at least provisionally, their environmental measures that are inconsistent with the GATT, they still have an obligation of assuring that they fulfil the general requirements of article XX. An important point with respect to the inclusion of general exceptions — such as those found in the GATT — in IIAs to ensure that a State could regulate for environmental protection, is that such provisions are susceptible to different methods of interpretation. In the context of trade agreements and in particular the GATT, it has been shown that there is an exacting standard with respect to Exceptions clauses, one which countries with ample institutional and administrative capacities could fail to match. It remains to be seen

/...

Another form of including exceptions to particular substantive provisions is through a specific clause contained in such provisions, as is exemplified by the MAI Draft Negotiating Text, in its section relating to performance requirements, which states:

"1. A Contracting Party shall not, in connection with the establishment, acquisition, expansion, management, operation, maintenance, use, enjoyment, sale or other disposition of an investment in its territory of an investor of a Contracting Party or of a non-Contracting Party, impose, enforce or maintain any of the following requirements, or enforce any commitment or undertaking:

. . .

(b) to achieve a given level or percentage of domestic content;

Box 5 (concluded)

whether or not for countries with less administrative resources and capacities, these requirements will prove to be insurmountable obstacles.

Source: UNCTAD

- a In addition, some of the Uruguay Round agreements could interact with environmental measures, including the Agreement on Technical Barriers to Trade and the Agreement on Agriculture.
- b Section 337 of the Tariff Act of 1930 (United States), BISD 36S/345; see also, Restrictions on Importation of and Internal Taxes on Cigarettes (Thailand), BISD 37S/200.
- c Restriction on Imports of Tuna (United States), GATT Panel Report No. DS21/R
- d Measures Affecting Exports of Unprocessed Herring and Salmon (Canada), BISD, 35S/114.
- In the Matter of Canada's Landing Requirement for Pacific Coast Salmon and Herring (Canada), Final Report of the Panel under Chapter 18 (Oct. 16, 1989).
- f Standards for Reformulated and Conventional Gasoline (United States), WT/DS2/9.
- g Import Prohibition of Certain Shrimp and Shrimp Products (United States), WT/DS58/AB/R.

 to purchase, use or accord a preference to goods produced or services provided in its territory, or to purchase goods or services from persons in its territory;

. . .

4. [Provided that such measures are not applied in an arbitrary or unjustifiable manner, or do not constitute a disguised restriction on investment, nothing in paragraphs 1(b) and 1(c) shall be construed to prevent any Contracting Party from adopting or maintaining measures, including environmental measures:

. . .

- (b) necessary to protect human, animal or plant life or health;
- (c) necessary for the conservation of living or non-living exhaustible natural resources]".

Similar language is found in the NAFTA (article 1106, paragraph 6) and other NAFTA-informed instruments such as the 1996 Canada-Chile Free Trade Agreement (article G-06: Performance Requirements, paragraph 6).

Preserving a State's power to prescribe regulation for environmental protection could be supplemented — as expressed in the Commentary on the 2000 OECD Guidelines — by encouraging enterprises to "work to raise the level of environmental performance in all parts of their operations, even where this may not be formally required by existing practice in the countries in which these enterprises operate" (OECD, 2000b, p. 9). It has been recognized in the Commentary that TNCs are typically subject to differing legal expectations concerning various aspects of their environmental performance, depending on where they operate.

* * *

The issue of the right to regulate for environmental protection is of particular importance as regards the treatment and protection clauses in IIAs. There are concerns that such provisions in IIAs,

coupled with investor-State dispute settlement procedures provided for therein, could be used by private investors to challenge measures by host Governments intended to preserve the environment. The concern is not merely academic, as is illustrated by a number of cases that have arisen in the context of NAFTA (box 6).

Box 6. Challenging environmental measures under NAFTA

NAFTA, in its investment chapter (Chapter 11), provides for treatment standards for covered investment (articles 1102-1105), disciplines on performance requirements (1106), expropriation and compensation (article 1110), and investor-State dispute settlement (articles 1115-1138). Notwithstanding article 1114(1) of NAFTA (quoted above), which stipulates that its Member States retain the right to regulate for environmental concerns, investors are free to challenge such measures in international arbitration. This is because article 1114(1) contains the proviso that environmental measures should be otherwise consistent with Chapter 11, and the issue of whether or not a given environmental measure is consistent with the NAFTA chapter on investment is always actionable. The following cases illustrate the point:

Ethyl vs. Canada (1997). Canada's Manganese-based Fuels Additives Act came into force on 24 June 1997. Under the Act, the gasoline additive MMT was placed on a schedule, which resulted in banning interprovincial trade and importation into Canada of MMT. Three legal challenges to the legislation were launched against the Government of Canada: an investor-State challenge under NAFTA Chapter 11 by Ethyl Corporation (United States); a constitutional challenge in the Ontario Court by Ethyl's Canadian subsidiary (Ethyl Canada); and a dispute settlement panel was established under the Agreement on Internal Trade at the request of Alberta (joined by three other provinces).

On 20 July 1998, the Government announced its decision to lift the trade restrictions on MMT by removing MMT from the schedule annexed to the Act. This decision responded to the Agreement on Internal Trade Panel recommendations announced 19 July 1998, concerning the inconsistency of the Act with obligations under the Agreement on Internal Trade. The Government also dealt with the

I...

Box 6 (continued)

NAFTA investor-State challenge launched by Ethyl Corporation and the constitutional challenge in the Ontario Court. Under the terms of settlement, the Government paid \$13 million to Ethyl, representing reasonable and independently verified costs and lost profits in Canada. Ethyl dropped both claims. At the time of settlement, the NAFTA case had not moved beyond a preliminary jurisdictional challenge initiated by the Government, and the merits of the claim had not yet been heard.

Metalclad vs. Mexico (1997). Metalclad Corporation (United States) had operations related to facilities for the treatment, storage and disposal of industrial waste in several Mexican states. It filed a claim for arbitration against the Government of Mexico with the International Centre for Settlement of Investment Disputes (ICSID) under Chapter 11 of NAFTA. The landfill operation in question was reportedly on top of an illegal hazardous waste dump site, the remediation of which was a partial consideration for the Mexican Federal authorities in granting some of the necessary permits. However, local construction and operating permits were not granted by the municipality in the face of opposition from residents of Guadalcázar and environmental NGOs. Metalclad claimed that its investment was expropriated when the Governor of San Luis Potosi declared a large area, which included the location of Metalclad's investment, an ecological zone. This was after an environmental impact assessment revealed the existence of an underground alluvial stream in the zone.

On 30 August 2000, a NAFTA arbitration tribunal rendered its award in Metalclad Corporation vs. United Mexican States. The tribunal found that Mexico was financially responsible for the inability of Metalclad to successfully operate the facility. It found that Mexico had breached NAFTA articles 1105 and 1110, and awarded Metalclad \$16,685,000 in damages. Mexico does not agree with the conclusions of the panel, and is considering its options with respect to the award.

S. D. Myers vs. Canada (1998). S. D. Myers, Inc. (United States) filed a lawsuit under NAFTA's chapter 11 dispute settlement procedures against Canada for lost profits during a 15-month (November 1995 — February 1997) ban of polychlorinated biphenyls (PCBs) exports. The

1

Box 6 (continued)

ban by Canada was imposed amid concerns that PCBs, a hazardous coolant used in electricity transformers, were not being safely handled. The United States company claimed that the temporary Canadian ban on the export of PCB wastes harmed its alleged investment in Canada. Claimed damages were \$20 million. On 13 November 2000, a NAFTA Tribunal decision concluded that Canada's temporary ban breached two provisions of the NAFTA investment chapter. Specifically, Canada was found to have breached its obligations under NAFTA Chapter 11 with respect to National Treatment (1102) and Minimum Standard of Treatment (1105). This decision also held that Canada did not breach Chapter 11 with respect to Performance Requirements (1106) and Expropriation (1110).

It should be noted that The Tribunal's decision was with respect to an interim order, which is no longer in effect in Canada. Furthermore, the tribunal explicitly acknowledged the right of NAFTA members "to establish high levels of environmental protection. They are not obliged to compromise their standards merely to satisfy the political or economic interests of other states". Thus, the decision confirms that NAFTA members retain the ability to regulate the safe movement and disposal of hazardous wastes, including PCB wastes. Finally, the amount of damages that S.D. Myers has suffered, if any, will be determined at the next stage of the arbitration.

Methanex vs. United States (1999). Methanex Corporation (Canada) filed a NAFTA claim against the United States for damages allegedly resulting from an executive order by the Governor of the State of California. Methanex contended that the order required the removal of MTBE — a chemical compound produced from methanol and isobutylene that can render water undrinkable under certain circumstances — from all fuel marketed in California. The California action was taken in light of a study raising concerns about the contamination of water resources in the event of MTBE leakage.

Methanex contested the validity of the environmental evidence and claimed that the measure has or will negatively impact the global price of its product, methanol, which it markets in part through an

3. Attracting FDI through a lowering of environmental standards

Another means of protecting the environment sometimes included in IIAs is an undertaking not to *relax* environmental standards in order to attract FDI. Such a provision has been included in some IIAs in order to answer concerns in both home and host countries that the liberalization of investment rules between States may provide an incentive for host states to lower their environmental standards in order to attract FDI. It is feared that removing restrictions on flows of capital and products would encourage companies from "high"-standard countries to relocate to "low"-standard countries (the "pollution haven" hypothesis — box 7). Under the "pollution haven" hypothesis, investors seek to reduce production costs by relocating, while maintaining access to the markets of both countries. Environmentalists on both sides would be concerned about creating pollution "hot spots" in low-standard countries, and about promoting downward pressure on environmental standards on both sides of the border.

Short of an actual *undertaking* not to relax environmental standards as an incentive to FDI, an agreement may simply include an assurance, as in the preambular statement of the 1998 BIT between Bolivia and the United States of America, that the agreement's economic objectives will not be *injurious* to the environment and can indeed "be achieved without relaxing health, safety and environmental measures of general application" (UNCTAD, 1999a, p. 119). In fact, this preambular clause featured in the April 1994 model BIT of the United States. A similar formulation has been

Box 6 (concluded)

indirect United States subsidiary and sometimes produces from a manufacturing plant in the United States. The company asserted that California's measure was tantamount to an expropriation, for which it is entitled to compensation under article 1110 of NAFTA. As of this writing, the arbitration case was pending resolution.

Source: UNCTAD.

considered in a recent BIT negotiation involving the Netherlands and Mozambique.

The 2000 OECD Guidelines, provide that "Enterprises should take fully into account established policies in the countries in which they operate, and consider the views of other stakeholders. In this regard, enterprises should:

Box 7. The "pollution haven" hypothesis

There have been several approaches to testing the general "pollution haven" hypothesis (Adams, 1997). The first has been to correlate outward FDI with environmental standards. The results have found no support for the "pollution haven" hypothesis, e.g. the hypothesis that TNCs direct their investment to countries with lax standards (Leonard, 1988; Repetto, 1995; Lucas et al., 1992, Eskeland and Harrison, 1997; Warhurst and Bridge, 1997). One study (Xing and Kolstad, 1997) does find the predicted effect, but its robustness has been questioned because of the use of sulphur dioxide emissions as a proxy for environmental regulation in a larger model of locational choice. Again, the studies find that the environmental variable is rarely significant. The most important variables remain the traditional ones of locational choice: factor endowments, infrastructure quality, distance and market size (Eskeland and Harrison, 1997).

There is also a third approach — to use case studies. This approach, which examines specific company decisions, has proved to be more successful in finding cases that support the notion that environmental standards are a factor in TNC location decisions (WWF, 1998). Examples of both — Governments failing to enforce environmental legislation and firms acknowledging that lower environmental standards were a factor — were found in Costa Rica, Mexico, India, Indonesia, Papua New Guinea and the Philippines (WWF, 1998 and 1999).

All three approaches have inherent difficulties. The first two suffer from imprecise measurement of the variables, such as environmental stringency and the difficulties plaguing FDI data and affiliate production data in general; they also rely heavily on data from the United States. The third suffers from selection bias - firms that have actually shifted are documented.

Source: From UNCTAD, 1999a, p. 298.

... 5. Refrain from seeking or accepting exemptions not contemplated in the statutory or regulatory framework related to environmental, health, safety, labour, taxation, financial incentives, or other issues..." (OECD, 2000a, chapter 2).

As explained in the Commentary on the 2000 0ECD Guidelines, paragraph 6, the words "or accepting" also draw attention to a corollary — the role of Governments in offering these exemptions.

NAFTA's Chapter 11 contains a similar clause in its article 1114 (paragraph 2):

"The Parties recognize that it is inappropriate to encourage investment by relaxing domestic health, safety or environmental measures. Accordingly, a Party should not waive or otherwise derogate from, or offer to waive or otherwise derogate from, such measures as an encouragement for the establishment, acquisition, expansion or retention in its territory of an investment of an investor. If a Party considers that another Party has offered such an encouragement, it may request consultations with the other Party and the two Parties shall consult with a view to avoiding any such encouragement".

This NAFTA "pollution haven" clause has been criticized by some legal observers as weak (e.g. Johnson and Beaulieu, 1996). The NAFTA parties chose to express this commitment in non-binding language — acknowledging the "inappropriateness" of lowering standards, and stating that parties "should not" do so — rather than prohibiting them from doing so. Furthermore, this provision is governed by its own, "soft" enforcement provision, which directs parties to use consultation procedures rather than the binding NAFTA dispute settlement provisions, to resolve any concerns.

Utilizing stronger legal language in the "Package of proposals for text on environment and labour" annexed to the MAI Draft Negotiating Text (Proposal 3: Affirmation of the Right to Regulate), the Chairperson proposed the following text:

"A Contracting Party shall not waive or otherwise derogate from, or offer to waive or otherwise derogate from, its domestic health, safety, environmental, or labour measures, as an encouragement to the establishment, acquisition, expansion, operation, management, maintenance, use, enjoyment and sale or other disposition of an investment of an investor".

While the commitment stated here is in mandatory language, the corollary task of linking the obligation to the MAI dispute settlement procedures had not been discussed by the negotiators (ibid., p. 215). Linking such a provision to a mandatory dispute settlement procedure could in fact raise some problems. Were either the NAFTA or the MAI provisions to be litigated, a claimant party would face substantial evidentiary challenges. Providing evidence that a party had intentionally re-designed its domestic legislation "as an encouragement" to attract FDI could be difficult. Indeed some of the critics of the NAFTA provision have suggested that vigorously enforcing such a commitment could have the reverse of its intended effect. It has been suggested that, if Governments were aware that they might be subject to suit each time they lowered an environmental standard, this might provide a disincentive for experimenting with higher standards in the first instance (Johnson and Beaulieu, 1996). 10

On the other hand, it would seem that the standard of proof would not necessarily have to show that the re-designed domestic legislation was "an encouragement" to attract FDI, but could instead show whether or not the lowering of standards reflected a change in available scientific evidence. The standard of proof would in any event need to be considered within the larger context of a comparison between the levels of protection afforded by the old and the new legislation. Should Governments be in a position to argue the changes in their policies on such an objective basis, rather than the subjective element of intent, there would be no reason not to experiment with higher protective standards.

Indeed, as previously indicated, the concept of the relaxation of environmental standards to attract FDI includes concerns with respect to the non-application or lax implementation of environmental

regulations, and the chilling-effect that the attraction of FDI might have on improvements to such regulations.

In a few instances, therefore, countries have found it necessary to enter into parallel environmental agreements, or have considered including provisions, to buttress their IIAs in this respect. For example, concern over the environmental effects of liberalized trade and investment led to the establishment of a North American Commission. for Environmental Cooperation through the 1994 North American Agreement on Environmental Cooperation (NAAEC) (ILM, 1993b) in the framework NAFTA. The NAAEC is a notable effort to tie environmental performance to investment (and trade) negotiations. The NAAEC, also known as the NAFTA environmental "side agreement" (together with the North American Agreement on Labor Cooperation) was negotiated in response to perceived inadequacies in the way in which NAFTA had dealt with environmental concerns. In particular the NAAEC addressed "the need for supplemental" instruments to address the social agenda . . . to the satisfaction of vocal interest groups and the citizenry" of the three countries (Johnson and Beaulieu, 1996, p. 121). The NAFTA parties agreed that the environmental objectives of the NAFTA included enhanced levels of environmental protection, which was expressly included in article 1 (d) of NAAEC. Furthermore, articles (f) and (g) of the NAAEC specifically stated that the objectives of the NAFTA environmental side agreement was to strengthen cooperation on the improvement of environmental laws and regulations, as well as the enhancement of their enforcement.

The NAAEC contains "no specific protective measures, environmental standards, codes or substantive rules" (ibid., p. 128). Nevertheless, it does provide a procedural means whereby complaints can be addressed by one NAFTA party "about the quality of the domestic administration and enforcement of environmental protection schemes of another party" (ibid., p. 126). These complaints can be resolved through compulsory arbitration, leading to the imposition of "monetary enforcement assessments" and, as a last resort, the denial of NAFTA benefits (such as the raising of tariffs). Furthermore, the Commission on Environmental Cooperation, established by the NAAEC, through the NAFTA Secretariat, accepts

submissions from NGOs, business and other individuals or organizations "asserting that a Party is failing to effectively enforce its environmental law" (ibid., p. 152). While these complaints from citizens can lead to the publication of a "factual record" of non-enforcement, only States party to the NAFTA are authorized to take forward such evidence to formal dispute settlement.

As to levels of environmental protection, article 3 of the NAAEC, while recognizing the right of each State to develop its own environmental development policies, provides that: "... each party shall ensure that its laws and regulations provide for high levels of environmental protection and shall strive to continue to improve those laws and regulations" (ILM, 1993b, p. 1483). Such environmental provisions can also be included in IIAs, as it was proposed for the draft MAI, in the context of annex 1, under "Additional Environmental Proposals". The proposal contained provisions similar to article 3 of the NAAEC.

B. Transfer of environmentally sound technology

Provisions on the transfer of clean technologies and environment-friendly products and processes seem to be gaining ground, not only in environmental agreements, but also in IIAs.¹¹ To set this question in historical context, it is useful to review the treatment of this matter in earlier agreements in which a recognizable interface between environment and FDI existed.

As early as 1972, principle 12 of the Stockholm Declaration (United Nations Conference on the Human Environment) (UNCHE, 1972) recognized the need to make international technical assistance available to developing countries. Principle 20 called for "environmental technologies to be made available to developing countries on terms which would encourage their wide dissemination without constituting an economic burden" (ibid.). Twenty years later, the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro produced Agenda 21. Chapter 34 of Agenda 21 ("Transfer of Environmentally Sound Technology Cooperation and Capacity-Building") reflects at least

a limited commitment on the part of the international community to give attention to the transfer of environmentally sound technology and technical assistance (box 8), though the objectives of Agenda 21 in this regard are mainly to help ensure access for developing countries to scientific and technological information. The observation has been made that it will be left for more formal treaty arrangements to translate the objectives into actual binding transfer-of-technology commitments (Sands, 1995).

In the present context, the most important contribution of Agenda 21 is that it provides a framework for environmental responsibility which explicitly makes reference to the role of TNCs and FDI. Moreover, it has lasting significance in that it represents an international commitment to the protection of the environment which, as demonstrated by the references to it in important contemporary instruments, serves as a continuous point of reference.

Box 8. Agenda 21: selected TNC-related provisions on the transfer of environmentally sound technologies

Agenda 21 addresses the role of TNCs and FDI with respect to the transfer of environmentally sound technologies in several chapters. Chapter 30 of Agenda 21, entitled "Strengthening the role of business and industry", provides that "... transnational corporations, and their representative organizations should be full participants in the implementation ... of activities related to Agenda 21" [30.1].^a With specific reference to technology transfer, "[m]ultinational companies, as repositories of scarce technical skills needed for the protection and enhancement of the environment, have a special role and interest in promoting cooperation in and related to technology transfer, as they are important channels for such transfer ..." 34.27]. Thus, the role of TNCs with respect to the transfer of environmentally sound technologies is clearly established.

The role of FDI with respect to transfer of technology is similarly acknowledged in Agenda 21. Chapter 33, entitled "Financial resources and mechanisms", states that "[m]obilization of higher levels of foreign direct investment and technology transfers should be

/...

Box 8 (concluded)

encouraged through national policies ..." [33.15], and makes specific reference to modalities for such transfers, for example, joint ventures. Such modalities between suppliers and recipients of technology, together with FDI, "could constitute important channels of transferring environmentally sound technologies" [34.28].

For the purposes of Agenda 21, technological knowledge is divided into that which is available in the public domain or is publicly owned [34.9], and proprietary or privately owned technology, which is available through commercial channels [34.11]. With respect to the latter, "[c]onsideration must be given to the role of patent protection and intellectual property rights along with an examination of their impact on the access to and transfer of environmentally sound technology" [34.10], including "providing fair incentives to innovators that promote research and development of new environmentally sound technologies" [34.11]. At the same time, "the concept of assured access for developing countries to environmentally sound technology in its relation to proprietary rights" [34.10], as well as modalities therefor [34.11], should be explored.

Several provisions in Agenda 21 specifically refer to Chapter 34, among which issues relating to changing consumption patterns [4.2], energy-efficient technology [7.49], conservation of biodiversity [15.7], and the marine environment [17.37] should be mentioned. It should also be noted that the implementation of activities related to the support and promotion of access to transfer of technology rests with Governments, through measures that, in the context of FDI, could be regarded as host and home country measures [34.18]. In connection with such measures, the question of "how effective use can be made of economic instruments and market mechanisms in ... the development and introduction of environmentally sound technology and its ... transfer to developing countries" should be considered [8.33].

Source: UNCTAD, based on UNCED, 1993.

^a Bracketed references are to the original Agenda 21 provisions.

The long delay in establishing practical and effective means to ensure the transfer of environmentally sound technologies since the 1972 Stockholm Declaration is also reflected in the failed efforts of the international community to adopt the 1985 draft International Code of Conduct on the Transfer of Technology elaborated under the auspices of UNCTAD. The draft Code had, in any case, only mild references to environmental issues per se. Essentially it was limited to information-sharing as a responsibility and obligation of parties (Chapter 5, paragraph 5.2(c)(i)). It also made reference to cooperation and assistance in the development and administration of laws and regulations designed to avoid health, safety and environmental risks associated with technology or resultant products (Chapter 6, paragraph 6.2(vi)). Real progress on linking technology transfer concerns with environmental issues has been equally slow even as regards international environmental agreements themselves. Early treaties included only general language on the exchange of information on appropriate technologies (Sands, 1995). 13 Thus, it is not surprising that this would also be the case in IIAs.

More concrete legal developments in the area of the transfer of environmentally sound technology occurred under the 1985 Vienna Convention for the Protection of the Ozone Laver (ILM. 1987a). The Vienna Convention requires parties to facilitate and encourage the exchange of scientific, technical, socio-economic, commercial and legal information. Moreover, it requires parties to cooperate, in conformity with their national laws, in promoting the "development and transfer of technology and knowledge" (article 4 and annex II). Article 10 (2) (d) of the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal requires parties to: "cooperate actively, subject to their national laws, regulations and policies, in the transfer of technology and management systems related to the environmentally sound management of hazardous wastes and other wastes" (United Nations, 1992). References that specifically address FDI had still not been featured as of this time.

As with general protection clauses — and owing to the paucity of environmental provisions in IIAs — it is again useful (not only for background but also for more substance on the interface

between environment and FDI) to refer to environmental agreements with direct or implicit reference to investment for their relevance to IIA negotiators in this area. Moreover, some international environmental agreements provide obligations on Governments that can translate into obligations on TNCs. The Montreal Protocol on Substances that Deplete the Ozone Layer (ILM, 1987b) is an example of this. 14 The original 1987 Montreal Protocol simply provided for cooperation in information exchange and in promoting technical assistance to developing countries for the purpose of facilitating participation in and implementation of the Protocol (articles 9 and 10). It was not until the London and Copenhagen Amendments that the Protocol required each party to take steps to ensure that the "best available, environmentally safe substitutes and related technologies are expeditiously transferred to" (article 10A) developing-country parties and that those transfers occur under fair and most favourable conditions. Under the amended Protocol, the establishment of the Multilateral Fund provides a mechanism for helping developing countries to meet the incremental costs of enabling compliance as well as meeting the cost of supplying substitutes to controlled substances (article 10(1)). 15 Moreover, it has been suggested that the Montreal Protocol could be interpreted to prohibit the transfer of technologies that do not satisfy the standards of being "environmentally safe", without expressly stating that commitment (Sands, 1995). Whether or not TNCs are directly addressed in the Protocol, the implications are self-evident.

The Clean Development Mechanism of the 1992 Framework Convention on Climate Change (FCCC) (ILM, 1992a) has been called "[t]he most relevant and significant international environmental agreement currently under discussion for the theme of TNCs and sustainable FDI" (Krut and Moretz, 1999). The FCCC requires all parties to promote and cooperate in "full, open and prompt" exchange of relevant scientific, technical, socio-economic and legal information related to the climate system and climate change (article 4(1)(h)). The provision of financial resources by developed-country parties includes resources for the transfer of clean technology. These parties are required to take "all practicable steps to promote, facilitate, and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other provisions

of the Convention" (articles 4(5) and 11(1)). The Kyoto Protocol (article 12) (United Nations, 1997) established the Clean Development Mechanism which, if ratified, would also have various financial mechanisms to stimulate climate-friendly investments in developing countries. It may well be that national policy action will increasingly be complemented by international action, which would not be surprising given the growing importance and global nature of this issue (UNCTAD, 1999a).

As mentioned at the outset, there is a growing recognition that the protection of the environment requires giving attention to the entire range of production processes and products. Moreover, it is recognized that "protection" largely comes in the form of transferred clean technologies and environment-friendly products. Again, explicit positive obligations in these areas are scarce in IIAs. Indeed, even in IIAs that do mention transfer of technology, the natures of obligations provided for in that respect are tentative.

For example, the Telecommunications annex to the WTO-GATS agreement, in its paragraph 6 entitled "Technical cooperation", provides that:

"... (d) Members shall give special consideration to opportunities for the least-developed countries to encourage foreign suppliers of telecommunications services to assist in the transfer of technology, training and other activities that support the development of their telecommunications infrastructure and expansion of their telecommunications services trade".

It is arguable that this undertaking includes clean technologies and management practices, especially as they relate to the development of an adequate infrastructure, which might otherwise in some cases entail a threat to the environment. However, it should be noted that although the provision is in mandatory language, the obligation only extends to giving special consideration to opportunities for *least* developed countries.

A somewhat stronger obligation that could again be argued to include environmentally sound technology and management

practices can be found in article 66 of the WTO-TRIPS agreement, which states:

"...2. Developed country Members shall provide incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to least developed country Members in order to enable them to create a sound and viable technological base".

An example of an even more germane commitment is provided in article 7 of part II of the Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects:

- "1. Consistent with the provisions of the Energy Charter Treaty, Contracting Parties shall encourage commercial trade and co-operation in energy efficient and environmentally sound technologies, energy-related services and management practices.
- 2. Contracting Parties shall promote the use of these technologies, services and management practices throughout the Energy Cycle" (ECP, 1995).

Again, it should be realized that the obligations under this Protocol extend to the encouragement and promotion of trade in, and the use of, environmentally sound technology and management practices.

With respect to the responsibility of TNCs as regards the transfer of environmentally sound technology, the 1991 Business Charter for Sustainable Development: Principles for Environmental Management, prepared for the International Chamber of Commerce (ICC) Commission on Environment, was adopted to promote meeting the needs of the present without compromising the ability of future generations to meet their own needs. Principle 13 specifically exhorts businesses to contribute to the transfer of environmentally sound technology. The earlier 1987 report of the World Commission on Environment and Development, "Our Common Future" (WCED, 1987), expressed the same challenge and called on the cooperation of business in tackling it.

In similar but clearer diction, the 2000 OECD Guidelines, in Chapter VIII entitled "Science and Technology", provides in its article 2 that "Enterprises should:

... where practicable, ... permit the transfer and rapid diffusion of technologies and know-how, with due regard to the protection of intellectual property rights" (OECD, 2000a, p. 7).

Article 4 of chapter VIII furthermore indicates that enterprises, "when granting licenses for the use of intellectual property rights or when otherwise transferring technology, do so on reasonable terms and conditions and in a manner that contributes to the long term development prospects of the host country" (ibid.).

Among relevant international agreements on environment with a bearing on the environmental aspects of transfer of technology, it is worth mentioning the 1992 Biodiversity Convention (ILM, 1992b). This Convention established a range of provisions that serve further to encourage, but still not actually require, the transfer of environmentally sound technology. The Convention addresses the relationship between technology transfer and intellectual property rights and not investment *per se.* It is nonetheless important that this Convention "links the effective implementation by developing countries of their commitments with the effective implementation by developed-country parties of their commitments related to, *inter alia*, transfer of technology" (Sands, 1995, p. 745, with reference to article 20(4)). Despite the absence of a direct reference to FDI, TNCs seem to be recognized as the main channel for technology transfer from developed to developing countries.

Under the Biodiversity Convention, the appropriate standard to be met – by TNCs or other investors – in transferring their technologies are actually elaborated in obligatory language. The Convention provides that: parties "must" provide and /or facilitate access for, and transfer to, other parties "technologies that are relevant to the conservation and sustainable use of biological diversity or make use of genetic resources and do not cause significant damage to the environment" (article 16(1)) (ILM, 1992b). The access and transfer to developing-country parties of those technologies by, for example, TNCs, should take place under "fair and most

favourable terms, including on concessional and preferential terms where mutually agreed" (ibid.) and on terms that recognize (and are consistent with) the adequate and effective protection of intellectual property rights (article 16(2)). Technologies that make use of genetic resources provided by parties, in particular developing-country parties, are to be accessed by and transferred to those parties on "mutually agreed terms", including technology protected by patents and other intellectual property rights, where necessary, through the provision of the Convention relating to financial resources and the financial mechanism (article 16(3); see also articles 20 and 21). Moreover, each party must take appropriate measures with the aim that the private sector facilitates access to and joint development and transfer of these technologies (article 16(4)).

Thus, IIAs and other relevant international instruments promote the transfer of environmentally sound technology and encourage measures on the part of both Governments and TNCs in this respect. Yet, some IIAs that would not allow such promotion to take the form of performance requirements. For example, NAFTA, in its article 1106(1)(f) provides that "no Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with the establishment, acquisition. expansion, management, conduct or operation of an investment of an investor of a Party or of a non-Party in its territory... to transfer technology, a production process or other proprietary knowledge to a person in its territory...". This is subject to any order intended to remedy a violation of the competition laws of the host country or, to act in a manner not inconsistent with other provisions of NAFTA. However, article 1106 (2) of the NAFTA provides that "a measure that requires an investment to use a technology to meet generally applicable ... environmental requirements shall not be construed to be inconsistent with paragraph 1(f)". Such measures are nevertheless subject to national and most-favourednation treatment standards of the Treaty. The NAFTA, while allowing a State to mandate the *use* of environmentally sound technologies, would still preclude their *transfer*.

A more robust example of this approach is the 1998 BIT between Bolivia and the United States. The parties undertook not to mandate or enforce, as a "condition for the establishment,"

... conduct or operation of a covered investment, any requirement (including any commitment or undertaking in connection with the receipt of a governmental permission or authorization) ... to transfer technology" (UNCTAD, 1999a, p. 120). This is subject to any order intended to remedy a violation of the competition laws of the host country, or any incentives. Thus, the Bolivia-United States BIT could operate against possible measures by the host country to mandate the transfer of environmentally sound technologies.

The preceding review of provisions that address transfers of clean technology reflects, as is the case with the protection of the environment in general, the recognition of the need to address this issue in international agreements. Indeed, as the analysis confirms, there is room to strengthen relevant provisions. Naturally, it is realized that the real test of any provision is in its implementation.

C. Transfer of environmentally sound management practices

In addition to the transfer of environmentally sound technologies, the diffusion and utilization of sound environmental management practices is another component that FDI could offer towards the objective of environmental preservation. In 1990, the United Nations Centre on Transnational Corporations (UNCTC) elaborated a set of "Criteria for Sustainable Development Management", at the request of the United Nations Economic and Social Council. Among these criteria were steps for TNCs to take to transfer sound environmental management techniques to host countries to enhance sustainable development. Among other things, corporations were encouraged to provide education and perform environmental audits of on-going activities, particularly those in developing countries, to verify that the criteria had been adequately considered. Sustainable development management criteria, as identified by the UNCTC, also included instituting researchand-development work on the reduction and/or elimination of industrial products and processes that generate greenhouse gases and arranging for environmentally safer technologies to be available to affiliates in developing countries without extra internal charges.

Agenda 21 has informed several instruments in its enterprisespecific pronouncements, including the recognition of environmental management as a high corporate priority (box 9).

Box 9. Agenda 21: selected references to TNC responsibilities with respect to environmentally sound management practices

Agenda 21 acknowledges the role that TNCs can play in mitigating environmental harm through the development and implementation of policies and operations that result in "more efficient production processes, preventive strategies, cleaner production technologies and procedures throughout the product life cycle" [30.2].^a Thus, TNCs are urged to "recognize environmental management as among the highest corporate priorities and as a key determinant to sustainable development" [30.3]. To this end, Agenda 21 encourages TNCs to:

- 1. aim to increase the efficiency of resource utilization, including increasing recycling and reducing waste discharge [30.6];
- 2. develop and implement methodologies for the internalization of environmental costs into accounting and pricing mechanisms [30.9];
- 3. report annually on their environmental records, and the adoption and implementation of codes of conduct promoting best environmental practices [30.10];
- 4. establish world-wide corporate policies on sustainable development and arrange for environmentally sound technologies to be available to affiliates owned substantially by their parent company in developing countries without extra external charges [30,22]:
- 5. establish partnership schemes with small and medium-sized enterprises to help facilitate the exchange of experience in managerial skills, market development and technological knowhow [30.23];

/...

The inclusion of sound environmental management in the 1991 OECD Guidelines was further recognition that it is an important component of sustainable development, and was increasingly being seen as both an opportunity and a responsibility for business, especially TNCs. The 1991 version in a section entitled "Environmental Protection" provided:

"Enterprises should ... take due account of the need to protect the environment and avoid creating environmentally related health problems. In particular, enterprises, whether multinational or domestic, should:

- Assess, and take into account in decision making, foreseeable environmental and environmentally related health consequences of their activities, including citing decisions, impact on indigenous natural resources and foreseeable environmental and environmentally related health risks of products as well as from the generation, transport and disposal of waste;
- 2. Co-operate with competent authorities, inter alia, by providing adequate and timely information regarding the potential

Box 9 (concluded)

- 6. increase research and development of environmentally sound technologies and environmental management systems [30.25];
- 7. ensure responsible and ethical management of products and processes from the point of view of environmental aspects [30.26]; and
- 8. adopt and implement, wherever they operate, policies and standards of operation with reference to hazardous waste generation and disposal that are equivalent to or no less stringent than those in their country of origin [20.29].

Source: UNCTAD, based on UNCED, 1993.

^a Bracketed references are to the original Agenda 21 provisions.

impacts on the environment and environmentally related health aspects of all their activities and by providing the relevant expertise available in the enterprise as a whole;

- 3. Take appropriate measures in their operations to minimise the risk of accidents and damage to health and the environment, and to co-operate in mitigating adverse effects, in particular:
 - a) by selecting and adopting those technologies and practices which are compatible with these objectives;
 - b) by introducing a system of environmental protection at the level of the enterprise as a whole including, where appropriate, the use of environmental auditing;
 - c) by enabling their component entities to be adequately equipped, especially by providing them with adequate knowledge and assistance;
 - d) by implementing education and training programmes for their employees;
 - e) by preparing contingency plans; and
 - f) by supporting, in an appropriate manner, public information and community awareness programmes".

Environmental protection was given particular attention during the 1999/2000 review of the OECD Guidelines. This was primarily due to the 1992 Rio Declaration with its Agenda 21 and the added reinforcement by several corporate codes, notable among which is the ICC Business Charter for Sustainable Development. This resulted in a much strengthened Environment Chapter (Chapter V) (box 10), especially with respect to environmentally sound management practices.

The coverage of the 2000 OECD Guidelines, the Commentary on which makes reference to the principles and objectives contained in, *inter alia*, the Rio Declaration and Agenda 21, has been broadened and deepened to include establishing and maintaining environmental

Box 10. The environmental chapter of the 2000 OECD Guidelines V. ENVIRONMENT

"Enterprises should, within the framework of laws, regulations and administrative practices in the countries in which they operate, and in consideration of relevant international agreements, principles, objectives and standards, take due account of the need to protect the environment, public health and safety, and generally to conduct their activities in a manner contributing to the wider goal of sustainable development. In particular, enterprises should:

- 1. Establish and maintain a system of environmental management appropriate to the enterprise, including:
 - a) collection and evaluation of adequate and timely information regarding the environmental, health, and safety impacts of their activities;
 - b) establishment of measurable objectives and, where appropriate, targets for improved environmental performance, including periodically reviewing the continuing relevance of these objectives; and
 - regular monitoring and verification of progress toward environmental, health, and safety objectives or targets.
- Taking into account concerns about cost, business confidentiality, and the need to protect intellectual property rights:
 - a) provide the public and employees with adequate and timely information on the potential environment, health and safety impacts of the activities of the enterprise, which could include reporting on progress in improving environmental performance; and
 - engage in adequate and timely communication and consultation with the communities directly affected by the environmental, health and safety policies of the enterprise and by their implementation.

I...

Box 10 (continued)

- 3. Assess, and address in decision-making, the foreseeable environmental, health, and safety-related impacts associated with the processes, goods and services of the enterprise over their full life-cycle. Where these proposed activities may have significant environmental, health, or safety impacts, and where they are subject to a decision of a competent authority, prepare an appropriate environmental impact statement.
- 4. Consistent with the scientific and technical understanding of the risks, where there are threats of serious damage to the environment, taking also into account human health and safety, not use the lack of full scientific certainty as a reason for postponing cost-effective measures to prevent or minimise such damage.
- 5. Maintain contingency plans for preventing, mitigating, and controlling serious environmental and health damage from their operations including accidents and emergencies; and mechanisms for immediate reporting to the competent authorities.
- Continually seek to improve corporate environmental performance, by encouraging, where appropriate, such activities as:
 - Adoption of technologies and operating procedures in all parts of the enterprise that reflect standards concerning environmental performance in the best performing part of the enterprise;
 - Development and provision of products or services that have no undue environmental impacts; are safe in their intended use; are efficient in their consumption of energy and natural resources; can be reused, recycled, or at least disposed of safely;

I . . .

management appropriate to an enterprise, even though essentially limited to the collection and evaluation of information and monitoring and the establishment of measurable objectives and targets for improved environmental performance. Accordingly, managers of these enterprises are exhorted to "give appropriate attention to environmental issues within their business strategies" (OECD, 2000b, p. 8). "Sound environmental management", as referred to in the 2000 OECD Guidelines, is to be interpreted "in its broadest sense, embodying activities aimed at controlling both direct and indirect environmental impacts of enterprise activities over the long-term, and involving both pollution control and resource management elements" (ibid.).

Thus, the environment chapter of the 2000 OECD Guidelines reflects several principles of sound management practices contained in Rio's Agenda 21. It also reflects standards contained in such instruments as the International Organization for Standardization

Box 10 (concluded)

- c) Promoting higher levels of awareness among customers of the environmental implications of using the products and services of the enterprise; and
- d) Research on ways of improving the environmental performance of the enterprise over the longer term.
- 7. Provide adequate education and training to employees in environmental health and safety matters, including the handling of hazardous materials and the prevention of environmental accidents, as well as more general environmental management areas, such as environmental impact assessment procedures, public relations, and environmental technologies.
- 8. Contribute to the development of environmentally meaningful and economically efficient public policy, for example, by means of partnerships or initiatives that will enhance environmental awareness and protection."

Source: OECD, 2000a, pp. 5-6.

(ISO) Standard on Environmental Management Systems (ISO, 1998). In fact, the ISO has developed special standards for environmental management. While TNCs are not singled out as addressees, the so-called "ISO 14001" (box 11) has been developed as a series of tools encompassing standards for environmental management and guidelines for environmental performance analysis generally and, as such, clearly has a direct bearing on TNC management practices, both at home and abroad.

Box 11. ISO 14001 standards for environmental management systems

The ISO^a 14001, part of the ISO 14000 family of International Standards on environmental management, specifies the requirements for an environmental management system — the management of those processes and activities that influence environmental impact. An organization might implement ISO 14001 for the internal benefits it can provide, such as reduced cost of waste management; savings in consumption of energy and materials; or clarification of environmental responsibilities within the organization. In addition, the standard may be used as the basis for certification of the environmental management system by an independent "registration" or "certification" body. ISO itself does not carry out conformity assessment and does not issue ISO 14001 certificates. An ISO 14001-certified environmental management system is intended to provide confidence to external parties that an organization has control over the significant environmental aspects of its operational processes, that it has committed itself to comply with all relevant environmental legislation and to continually improve its environmental performance. Such independent certification is becoming an integral part of environmental management strategies: certificates of conformity to ISO 14000 increased fifty-fold between the years 1995 and 1999.b

Firms seeking certification are required to take the following steps:

- an initial review by management to identify environmental issues of concern (e.g. excessive use of polluting inputs; the potential for a serious environmental accident);
- establishment of priorities for action, taking into account local environment regulations and potential costs;

/

Box 11 (concluded)

- establishment of an environmental policy statement, signed by the CEO, which includes commitments to compliance with environmental regulations, pollution prevention and continuous improvement;
- development of performance targets based on the policy statement (e.g. reduction of emissions by a set amount over a defined period);
- implementation of the environmental management systems, with defined procedures and responsibilities;
- implementation reviews, performance measurement and management audits.

Although fairly new, the bulk of the certificates that have been issued are for firms in developed countries. This reflects demand in these countries for environmentally responsible management. Developing countries are starting to obtain a greater share of the certificates being issued. TNCs have a role to play in assisting, first, developing countries to upgrade their abilities to have certification bodies,^c and, second, domestic firms, especially their own operations and suppliers, to meet the certification requirements.

Source: UNCTAD, based on ISO, 1998.

- ^a The International Organization for Standardization, based in Geneva, publishes voluntary standards for technology and business activity.
- b See ISO, 1999.
- On the participation of developing countries in standard-setting bodies, see Krut and Gleckman, 1998

* * *

As indicated previously, environmental protection is a vast subject that transcends the interface of FDI and IIAs. While stock has been taken of how the key issues have been addressed in IIAs and other relevant international instruments, two other developments deserve brief discussion.

The first notable development concerns an increasing awareness of and calls for studying and measuring the potential impact of production on the environment. This development, in its contribution to environmental awareness and protection, is closely linked to issues discussed concerning environmentally sound management practices of TNCs. With respect to environmental assessment studies, one issue that arises in the context of FDI is the screening of investment projects. Despite the general trend toward providing incentives for TNC entry and moving away from screening of FDL some IIAs do provide for pre-admission screening mechanisms on environmental grounds through the requirement of submission of environmental impact assessment studies. For example, in article 19(1) of Part IV of the ECT, "[t]he Contracting Parties agree that the polluter in the Areas of Contracting Parties, should, in principle, bear the cost of pollution, including transboundary pollution, with due regard to the public interest and without distorting Investment in the Energy Cycle or international trade. Contracting Parties shall accordingly ... [inter alia] ... promote the transparent assessment at an early stage and prior to decision and subsequent monitoring, of Environmental Impacts of environmentally significant energy investment projects; ..." (ECT, 1995).

The Convention on Environmental Impact Assessment in a Transnational Boundary Context is another instrument that directly affects investment projects through its requirement for environmental impact studies. Article 2(2) provides that:

"[e]ach Party shall take the necessary legal, administrative or other measures to implement the provisions of this Convention, including, with respect to proposed activities listed in Appendix I that are likely to cause significant adverse transboundary impact, the establishment of an environmental impact assessment procedure that permits public participation and preparation of the environmental impact assessment documentation described in Appendix II" (ICEL, 1995). 16

It is also important to point out that article 2(3) of the Convention on Environmental Impact Assessment in a Transnational Boundary Context requires that "[t]he Party of origin shall ensure that in accordance with the provisions of this Convention an environmental impact assessment is undertaken prior to a decision to authorize or undertake a proposed activity listed in Appendix I that is likely to cause a significant adverse transboundary impact" (ibid.). This provision in effect establishes an environmental screening mechanism with respect to FDI.

The issue has also been addressed in ancillary fashion — for obtaining investment insurance — by the World Bank Group's Multilateral Investment Guarantee Agency (MIGA). MIGA, informed by such national-level schemes as the United States' Overseas Private Investment Corporation (United States, 1999), requires an environmental assessment of proposed projects by any applicant for a guarantee (box 12). MIGA is particularly important for investors from developing countries because, contrary to virtually all developed countries, developing countries typically do not provide insurance for outward FDI. It is therefore normally the only investment insurance facility available to firms from these countries.

The second development concerns the issue of environmental reporting standards. It involves the inclusion of financial measurements of the impact of production on the environment in relevant reports, as well as non-financial information with respect to environmental impact of operations. Accounting and reporting for the environment has become increasingly relevant to TNCs. Some users of financial statements want to know the extent of a company's environmental exposure and how the company is managing its environmental costs and liabilities. In this connection, a technical position paper endorsed by UNCTAD's Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR) has been put forward for the consideration of Governments, enterprises and other interested parties in order to contribute to both the quality of environmental accounting and reporting and its harmonization (United Nations, 1999).

Box 12. MIGA: investment guarantees and environmental assessment

To achieve its objective of helping to ensure that it provides guarantees only to those projects that are environmentally sound and sustainable, MIGA requires evaluation of the potential environmental impacts of a proposed project. It seeks to use such assessments to improve project planning, design and implementation by preventing, minimizing, mitigating or compensating for adverse environmental impacts. MIGA will "favour preventive measures over mitigatory or compensatory measures, whenever feasible" (MIGA, 1999, paragraph 2). The environmental assessment of a proposed project includes the identification of the relevant obligations of the host country under international environmental treaties and agreements, and MIGA will not issue guarantees to projects that would contravene such obligations.

An initial screening of each proposed investment by MIGA determines the appropriate extent and type of environmental assessment. A proposed investment is classified into one of three categories (A, B and C) "depending on: the type, location, sensitivity, and scale of the project; and the nature and magnitude of its potential environmental impacts" (ibid., paragraph 8). Specified criteria for classification of each investment include whether it:

- is likely to have significant adverse environmental impacts that are sensitive, diverse or unprecedented (category A)
- has impacts that are site-specific and reversible, for which, in most cases, mitigatory measures can be designed (Category B); and
- produces negligible adverse impacts on the environment (Category C).

An applicant is then advised on MIGA's environmental assessment requirements.

The types of reports that can be used to satisfy MIGA's environmental assessment requirements are listed and defined in annex B to MIGA's Operational Regulations (ibid., paragraph 7 and

,

Environmental reporting with respect to non-financial information on the policies, practices and overall value statements of TNCs has been explicitly encourage in chapter III of the 2000 OECD Guidelines. Here, enterprises are encouraged "to apply high quality standards for non-financial information including environmental... reporting where they exist" (OECD, 2000a, p.4). In particular, enterprises are encouraged to report on "value statements or statements of business conduct intended for public disclosure including information on the ... environmental policies of the enterprise and other codes of conduct to which the company subscribes" (ibid.).

* * *

Box 12 (concluded)

"Definitions"). A report should provide "a clear understanding of the sponsor's approach to environmental mitigation and management" (ibid., paragraph 7, footnote 5). It will also provide MIGA "with an adequate basis for a decision to offer a guarantee" (ibid., paragraph 5), as well as "for requiring specific actions as conditions of a guarantee" (ibid. paragraph 7, footnote 5). In some cases, this includes the requirement of public disclosure of the instrument, and consultations with "project-affected groups and local non-governmental organizations" (ibid., paragraph 9).

When a guarantee contract is issued, MIGA requires the guarantee holders to operate in compliance with the host country's environmental and other related laws and regulations, MIGA's own environmental policies and guidelines, and any other specific requirements set by MIGA. Compliance is verified through warranties and representations, monitoring reports, site visits, or other necessary measures. Failure by the guarantee holder to cooperate with respect to these verification mechanisms, or to abide by the relevant laws, regulations, or specific requirements, entitles MIGA to terminate a guarantee. In addition, MIGA could also deny payment of a claim if a non-compliance is not corrected within a period set forth in the Contract of Guarantee.

Source: UNCTAD, based on MIGA, 1999.

A few IIAs and a number of other international instruments address the linkage between the environment and FDI. The protection of the environment is generally referred to with respect to the responsibility of both Governments and TNCs. There are various formulations, each depending on the scope of a given instrument and the purposes and objectives of its signatories. In addition, two specific issues relating to regulatory powers and practices of Governments are noteworthy. First, some IIAs provide that Governments retain their right to regulate. Second, parties to some IIAs undertake not to lower standards in order to attract FDI. Furthermore, a few contemporary IIAs and other relevant international instruments (in particular Agenda 21) expressly recognize the role of FDI in the transfer of environmentally sound technology and management practices, and urge measures on the part of both Governments and TNCs in this regard. Provisions in this respect may well acquire an enhanced legal and practical significance in future rule-making.

Notes

- This paper will only highlight those provisions in Agenda 21 that specifically address TNCs with respect to environmental protection, or are otherwise relevant to the interface between FDI and TNCs on the one hand and the environment on the other. It is recognized that Agenda 21 contains numerous articles, particularly in Chapter 30, that address actors in business and industry, which includes TNCs.
- Unless otherwise noted, all instruments cited herein may be found in UNCTAD, 1996 or 2000a.
- Such preambular language, even though not part of the "operative" text of an IIA, can nevertheless have an influence on the interpretation of a treaty's substantive obligations.
- See footnote 3 of the Preamble to the MAI Draft Negotiating Text. For an NGO perspective on the MAI and environmental protection, see, WWF, 1998a.
- General references, using binding language "shall", are found in provisions setting forth the approach towards strategies aimed at realizing the objectives of the agreement (article 20), as well as the conditions for regional cooperation (article 30), institutional development and capacity building (article 33). A declaratory provision in article 42 acknowledges the importance of a clean marine environment in the area of marine transport development.

- The specific areas mentioned are in fact very broad, and include tropical forests, fisheries resources, soils, biodiversity and ecosystems.
- Due to heightened awareness of environmental concerns since the earlier code movement, prompted in part by reactions to industrial accidents such as Bhopal, a chapter on the environment was added following the 1991 Review, which will be discussed below.
- The OECD Principles constitute a set of non-binding corporate governance standards and guidelines, prepared by an OECD task force in consultation with national Governments, relevant international organizations and the private sector. The Principles were approved by the OECD Council at the ministerial level on 26-27 May 1999.
- Although article 2101 does not apply to NAFTA's Chapter 11 on investment, NAFTA does except, from its performance requirements prohibitions, national measures that require an investment to use a technology to meet generally applicable health, safety or environmental requirements (article 1106, paragraph 2).
- For these reasons the MAI Chairperson recommended that the MAI Draft Negotiating Text be accompanied by yet another interpretative footnote, which would have indicated that "[the Parties] recognize that Governments must have the flexibility to adjust their overall health, safety, environmental or labour standards over time for public policy reasons other than attracting foreign investment" (UNCTAD, 2000a, vol. IV, p. 215).
- Provisions relating to transfer of technology, in general terms, are included in a number of international instruments. The issue of technology transfers in the context of IIAs are dealt with elsewhere in the Series (UNCTAD, forthcoming c). Here, only those provisions that address the transfer of environmentally sound technologies will be discussed.
- Numerous provisions in Agenda 21 address the need for technology transfer in the latter context. Many of its chapters include articles that pertain to human resources development and capacity building with respect to transfer of environmentally sound technologies. These chapters include environmental infrastructure in human settlements, energy efficiency and consumption, combating deforestation and desertification, sustainable agriculture and rural development, biological diversity, water resources, toxic and dangerous products, and hazardous wastes.
- See the 1979 Long-Range Transboundary Air Pollution Convention, Art. 8(c) (ILM, 1979); the 1988 NO_x Protocol, Art. 3 (Exchange of Technology) (ILM, 1988); the 1991 VOC Protocol, Art. 4 (Exchange of Technology) (ILM, 1991b).
- This is the Protocol to the Vienna Convention for the Protection of the Ozone Layer (ILM, 1987a). There have since been two amendments to the Protocol: one adopted at London "the 1991 London Amendment" (Montreal Protocol

Parties: Adjustments and Amendments to the Montreal Protocol on Substances that Deplete the Ozone Layer) (ILM, 1991a), and the other adopted at Copenhagen, "the 1993 Copenhagen Amendment" (United Nations: Montreal Protocol on Substances that Deplete the Ozone Layer. Adjustments and Amendments) (ILM, 1993c).

- Art. 10(1); see Annex VIII, Indicative List of Categories of Incremental Costs, UNEP/OzL.Pro.4/15, 25 November 1992, 51 and 735C6; on the Global Environmental Fund, see also Birnie and Boyle, 1995.
- A review of the list of activities fin Appendix I reveals a closer connection between the Convention and FDI, as it includes operations that traditionally have involved TNCs. Activities include certain types of refineries, power stations, and chemical installations. Also included are groundwater abstraction activities; pulp and paper manufacturing; major mining, on-site extraction and processing of ores or coal; offshore hydrocarbon production; and, deforestation of large areas. In addition, infrastructure projects over a certain size are also included in the list. These are construction of motorways, railways, airports, oil and gas pipelines, seaports, waste-disposal installations, chemical treatment plants, large dams, and major storage facilities for petrochemical products.

"Impact" means any effect caused by a proposed activity on the environment including human health and safety, flora, fauna, soil, air, water, climate, landscape and historical monuments or other physical structures or the interaction among these factors; it also includes effects on cultural heritage or socio-economic conditions resulting from alterations to those factors (article 1(vii) of the Convention).

Section III

INTERACTION WITH OTHER ISSUES AND CONCEPTS

The issue of environment has a number of interactive effects with a number of the issues and concepts covered in the present Series, but in most cases, this is not extensive (table 1). In six areas, however, interaction is extensive.

Table 1. Interaction across issues and concepts

Concepts in other papers	Environment
Scope and definition	+
Admission and establishment	#
Incentives	#
Investment-related trade measures	+
Most-favoured-nation treatment	+
National treatment	+
Fair and equitable treatment	+
Transfer pricing	0
Competition	0
Transfer of technology	#
Employment	+
Social responsibility	#
Taxation	0
Home country measures	+
Host country operational measures	+
Illicit payments	0
Taking of property	#
State contracts	0
Transfer of funds	0
Transparency	+
Dispute settlement (investor-State)	#
Dispute settlement (State-State)	+

Source: UNCTAD.

Key: 0 = negligible or no interaction.
+ = moderate interaction.
+ extensive interaction.

- Admission and establishment. A critical point of intervention for Governments to assess the potential impact of FDI especially investments involving large-scale projects and pollution-intensive industries — on the environment is at the time of entry of a TNC. This is typically through screening mechanisms, especially environmental assessment studies.
- Incentives. There is generally a concern that countries, in their competition to attract FDI, might consider lowering their environmental standards to reduce costs for foreign investors. IIAs have sought to address this concern, as discussed earlier in this text (UNCTAD, forthcoming b).
- Technology transfer. Provisions in IIAs that generally deal with the transfer of technology also include automatically the transfer of environmentally sound technology. Hence, the discussion of this broader topic (UNCTAD, forthcoming c) is immediately relevant to the subject of this paper.
- Social responsibility. Contributions by TNCs to the maintenance and promotion of environmentally sound policies, operational standards and practices, technologies and products are substantive standards of social responsibility, which are increasingly reflected in corporate codes of conduct and, indeed, are part of the Global Compact (UNCTAD, 1999a and UNCTAD, forthcoming d).
- Taking of property. Measures pertaining to the protection of the environment that result in the effective loss of management, use or control, or a significant depreciation of the value, of the assets of a foreign investor may fall under the category of "regulatory takings" (UNCTAD, 2000c). Where a takings clause in an IIA encompasses such measures and provides for compensation to foreign investors, it might have a chilling effect on the efforts of host countries to protect their environment.
- Investor State dispute settlement. As discussed earlier, the effects of investor-State dispute settlement arrangements in IIAs on environmental measures might require careful

consideration, especially in light of recent experience in the context of NAFTA. (For a general discussion of investor-State dispute settlement, see UNCTAD, forthcoming e.)

CONCLUSION:

ECONOMIC AND DEVELOPMENT IMPLICATIONS AND POLICY OPTIONS

From a sustainable development perspective, neither the need for the protection of the environment, nor the possibility of the contribution of FDI to environmental welfare, are controversial international issues. Low awareness of environmentally friendly products, technology and management practices and/or inadequate attention to such products and processes by producers and consumers, can impose high costs in terms of environmental degradation as well as natural resources depletion which, in turn, negatively affect national development. For its part, FDI — made, as it is, by firms with competitive advantages that enable them to overcome the disadvantage of operating in foreign locations — often hold the potential for the international transfer of environmentally sound practices and knowledge that contribute towards sustainable development.

However, with respect to the question of countries balancing the immediate economic impact sought from FDI, on the one hand, and environmental preservation, on the other hand, some controversy might exist. Although there is scant evidence to indicate its occurrence on any significant scale, some countries, especially those trying hard to attract FDI, might be tempted or induced to lower their environmental standards to increase their locational advantages for TNCs. Moreover, in the absence of deliberate policies and practices by TNCs with respect to the use and diffusion of environmentally sound technologies and management practices in all their operations – and especially where IIAs prohibit the imposition of performance requirements on investors covered by the agreements – the policy options for countries with scarce financial resources for the acquisition of such technologies and know-how remain limited.

National policymakers and managers of TNCs could make a contribution to the protection of the environment, by promoting the transfer of environmentally sound technologies and management practices to foreign affiliates located in particular countries, especially host developing countries and to other local firms linked to them. This can contribute to long-term sustainable development in the country in question. At the same time, from a corporation's perspective, it can make good business sense to adopt environmentally sound policies and practices — in terms of minimizing potential liabilities, responding to consumer preferences and safeguarding the corporate image.

Traditionally, environmental concerns have been addressed through national laws as well as through codes of conduct adopted by corporations and industry groups. More recently, such concerns have been addressed in international arrangements related to the environment, as well as within the context of IIAs. Within this latter context, a number of questions arise. To what extent could IIAs in general contribute to environmental welfare in the light of specialized instruments dealing with environment? Where IIAs address environmental concerns, should standards be included? If so, how are these standards defined, to whom are they addressed. and should they be binding or non-binding? How would they interact with standards contained in specialized instruments on the environment? A discussion of these questions would also require a balancing of at least two sets of arguments. First, that the prescription of certain standards could in some circumstances amount to a form of disguised protectionism. Secondly, that the need to promote certain environmental standards may outweigh certain negative impacts on trade or investment growth or patterns and possibly, on intellectual property rights.

In the light of the discussion in the preceding sections, the following are a range of policy options that IIA negotiators could consider as regards environmental matters. As always in this Series, the intention is not to advocate any of them, but to provide a range of alternatives:

• Option 1: No reference to the environment. As indicated before, most IIAs do not have specific provisions concerning the environment and its protection. In this option, national laws remain the principal means of environmental protection and the ways and means of providing for a framework for ensuring the achievement of related preservation objectives, is seen as involving issues that go beyond those relating directly to FDI. Thus, it would be reasoned that specialized international environmental agreements — to the extent that national laws are not enough — are better suited than IIAs to address such issues.

Furthermore, it can be argued that autonomous efforts by TNCs to meet or surpass national or international environmental standards may be an adequate guide to policy development in this area. Proponents of this line of reasoning maintain that the focus of governmental action could be limited to the cultivation and encouragement of environmentally friendly corporate management cultures and strategies, including those related to the transfer of environmentally sound technologies and management practices. This might include the promotion of the establishment and enforcement of internal corporate or industry-wide codes of conduct.

However, given that environmental issues are important and to the extent that countries wish to address the commitments of the actors in FDI with respect to the protection of the environment in IIAs, further options present themselves. Again, it is emphasized that the litmus test for the effective protection of the environment is the implementation of relevant provisions.

 Option 2: Non-binding or declaratory provisions related to the environment. Countries might simply wish to confirm their commitment to environmental preservation. This could be limited to an exhortation that the parties should generally promote environmental welfare. In other words, they would usually in the preamble section of an instrument — simply exhort the parties to take into account the preservation of the environment, which might be included with a string of other issues, such as social responsibility and consumer protection.

Alternatively, general references in IIAs could manifest the parties' consideration of and attention to, environmental welfare in general or, in particular, to other international environmental arrangements. A model for the latter approach is provided for in the preamble of the Energy Charter Treaty:

"Recalling the United Nations Framework Convention on Climate Change, the Convention on Long-Range Transboundary Air Pollution and its protocols, and other international environmental agreements with energyrelated aspects; and

Recognizing the increasingly urgent need for measures to protect the environment, including the decommissioning of energy installations and waste disposal, and for internationally-agreed objectives and criteria for these purposes, ..."

Moreover, parties could use declaratory statements to protect and promote the environment, as well as affirm their belief that their objectives under a given IIA could be achieved without compromising the environment or a lowering of environmental standards. Declaratory statements have recently been incorporated in a few IIAs. In particular one BIT concluded between Bolivia and the United States and another between Mozambique and the Netherlands, as well as the MAI Draft Negotiating Text.

Negotiating parties might also wish to provide for non-binding provisions that address certain aspects of environmental protection in more detail. The introduction of such provisions might reduce the indeterminacy of the effects of the inclusion of hortatory provisions in IIAs in terms of implementation, application or dispute settlement. This could also be

accomplished by making reference to other agreements in the context of an IIA. A model for this approach is provided for in the MAI Draft Negotiating Text. In part X of the MAI entitled "Relationship to other International Agreements" incorporated the OECD Guidelines for Multinational Enterprises, which included recommendations on environmental protection, into the agreement and stated:

- "2. The Contracting Parties ... are encouraged to participate in the Guidelines work ... in order to promote co-operation on the application, ... of the Guidelines ...
- 4. Annexation of the Guidelines shall not bear on the interpretation or application of the Agreement, including for the purpose of dispute settlement; nor change their non-binding character...".

The MAI approach also points to a more general variation. IIAs are intergovernmental instruments and as such, their hortatory language typically refers to States. However, where parties to IIAs intend to address TNCs, as they did in the case of the MAI, then hortatory provisions on the protection of the environment, and the transfer and use of environmentally sound technologies and management practices could also be included in an IIA.

Non-binding language might prove to be easier to negotiate than legally binding provisions. Furthermore, where there is concern that the establishment of legal obligations might potentially stifle initiatives to reach higher standards with respect to environmental protection, the inclusion of non-binding provisions could provide a way forward. With respect to provisions addressed to States, it should also be noted that it is possible for States, through the implementation of "soft" international commitments, to create customary norms, which, in time, might become "hard" legal obligations, and thus become enforceable as customary rules of international law.

Option 3: Specific clauses on reservation of regulatory **powers with respect to the environment**. The nature of the provisions and the commitments undertaken in IIAs might be (mis-)interpreted in a way that could hamper the ability of Governments to protect the environment effectively. This might particularly be the case, when measures taken in the interest of environmental concerns could be construed as expropriations. Another case could be that an IIA, without any provisions relating to environmental regulation, does not allow performance requirements and is further strengthened by mandatory, final and binding international arbitral procedures to settle investor-State disputes. Thus, parties to IIAs might find it necessary to clarify specifically that their obligations thereunder do not diminish their power to take measures to protect the environment. One approach could be a specific clause that encourages or requires the parties to take whatever measures necessary to ensure that covered investments conform to environmental standards in the host country. Countries might therefore prefer to introduce "carve-out" clauses for environmental measures.

One method of carving out environmental regulation from the ambit of the provisions of IIAs is the inclusion of general or specific exceptions that would provide a legal basis for justifying relevant measures that affect covered investments, which might otherwise be precluded in an IIA. The general exceptions model has been followed in GATT article XX. An example of the specific exception model is found in the draft MAI with respect to performance requirements. The introduction of this type of carve-out clause establishes unequivocally that environmental measures are not included in the category of prohibited performance requirements, or that such measures, if within the normal scope of governmental regulatory activity, could not be submitted to an investor-State arbitral panel.

Another carve-out option that can be considered is with regard to the subject-matter jurisdiction of investor-State dispute settlement bodies. Here, the parties could include a provision to exclude claims arising from environmental

measures that affect covered investments from being pursued through investor-State dispute settlement processes and instead, to leave such matters for State-to-State dispute settlement processes. Proponents of this technique might point out that, as both States share a common interest in regulating for environmental welfare, it would be more appropriate for such disputes to be handled between regulators, rather than through the narrower perspective that is created in a dispute between an investor and a host State.

Some IIAs, in particular those that are regional or plurilateral, or are wider in scope (such as economic integration agreements), might have a "positive list" or "negative list" approach with respect to their various obligations. In other words, parties to such agreements are allowed to "opt-in" or "opt-out" only specified industries of their economies, which will then be subject to (or excluded from) investmentrelated obligations undertaken in an IIA. Where this method available, countries might choose to carve-out environmentally-sensitive industries from the coverage of some of the provisions of an agreement. It should be noted that this option may be useful only in certain cases, for example where, an IIA contains disciplines on performance requirements, the application of which a country might wish to exclude from those industries most sensitive to environmental stress. In most other cases, however, opting for an industry to remain immune to the important investment protection provisions of IIAs could place a country at a competitive disadvantage vis-à-vis countries that accept such obligations, but has strengthened its domestic regulatory framework with respect to environmental protection.

While most BITs condition the entry of foreign investment on conformity with relevant national legislation, some more recently negotiated IIAs have sought to extend general treatment standards to the pre-establishment stage. In such cases, the screening of foreign investment might run counter to such standards, especially where they include environmental impact assessments. On the one hand, if environmental impact assessments were required on a non-discriminatory basis,

a problem would not arise. On the other hand, where no general environmental regulatory framework exists and a country instead relies on a project-by-project screening method to ensure environmental protection, differential treatment might be unavoidable. Here, an option is to carve-out screening mechanisms intended to protect the environment, such as environmental impact assessments, either through specific clauses, or the modification of the treatment provisions in such a way as to provide for differential treatment in dissimilar circumstances.

Option 4: Specific clauses on no lowering of environmental **standards**. A corollary to the right to regulate for environmental protection is the issue of the lowering of environmental standards as a means to attract FDI. Where parties consider that this possibility exists, and wish to address it in their IIAs, specific clauses to this effect could be included. In the context of negotiations on such issues, concerns could arise with respect to the necessity of ad hoc relaxation of environmental standards under circumstances that are not FDI related. These include, for example, the need to experiment with different levels of protection, temporarily raise standards to meet particular transitory environmental stresses, and issue individual waivers to help quickly resolve specific cases of damage to the environment. Such circumstances may need to be taken into account in clauses obliging countries not to lower their environmental standards.

A model that reflects a strongly formulated approach to the issue of the no lowering of environmental standards can be found in the MAI Draft Negotiating Text's proposal 3. Where binding language is preferred on this issue, negotiations might also address how a legal test could be devised so that clear cases of lowering of environmental standards intended to attract FDI could be distinguished from cases where such lowering is done for legitimate reasons, but may nevertheless have an incidental impact on FDI flows.

 Option 5: Generally mandatory environmental provisions in IIAs. Where environmental welfare is integral to the purposes of an IIA, parties might consider binding environmental clauses to advance their objectives. Thus, a further option for dealing with environmental concerns would be to enshrine certain principles and related standards into concrete provisions in IIAs. In this case, obligations would be undertaken by the parties, the breach of which would have consequences for them under international law. In addition to undertaking binding commitments as a matter of purely international legal obligation, the parties could go further in making their treaty provisions more effective and, depending upon the nature of the obligation, create directly effective rights under their respective national legal systems.

Such obligations could be phrased in general terms. Thus, for example, parties could agree to take all necessary measures to ensure that investment activities in their respective territories are carried out based on environmentally sound policies and practices. Alternatively, specific provisions could be formulated, which could be informed by domestic standards that are similar between the contracting parties, or internationally agreed environmental standards that are accepted by them. For example, there could be standards dealing with the use of certain products or production technologies, processes and practices. In addition, standards might provide for certification procedures, reporting requirements, testing and analysis undertakings, and insurance against environmental damage. They might also include environmental impact assessments and related accounting reports.

Instead of providing explicitly for mandatory provisions concerning the environment, the parties could also simply incorporate by reference certain standards from other legal systems and frameworks into their IIAs. This incorporation technique could provide for the inclusion of mutually recognised domestic or international environmental standards as reflected in, for example, multilateral environmental agreements. The consequence of this incorporation option is that obligations in the IIA would then mirror those under the incorporated domestic or international standards. Thus, the determination

of the nature and scope of application of such obligations depends entirely upon the domestic legal system or the international regime from which they are derived. NAFTA is an example of one model for this option, where, in its article 104 entitled "Relation to Environmental and Conservation Agreements", it provides:

- "1. In the event of any inconsistency between this Agreement and the specific trade obligations set out in:
- a. the Convention on International Trade in Endangered Species of Wild Fauna and Flora, done at Washington, March 3, 1973, as amended June 22, 1979,
- b. the Montreal Protocol on Substances that Deplete the Ozone Layer, done at Montreal, September 16, 1987, as amended June 29, 1990,
- c. the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, done at Basel, March 22, 1989, on its entry into force for Canada, Mexico and the United States, or
- d. the agreements set out in Annex 104.1,
- such obligations shall prevail to the extent of the inconsistency, provided that where a Party has a choice among equally effective and reasonably available means of complying with such obligations, the Party chooses the alternative that is the least inconsistent with the other provisions of this Agreement.
- 2. The Parties may agree in writing to modify Annex 104.1 to include any amendment to an agreement referred to in paragraph 1, and any other environmental or conservation agreement".

Equally, parties to IIAs could choose to address environmental concerns in side-agreements. Such agreements tend to be negotiated when issues arise after main negotiations have been concluded or near conclusion, or when the institutional and procedural arrangements on environmental matters vary substantially from those provided for in the IIA. The NAFTA side agreement, NAAEC, provides a model for this approach.

As in option 2, (binding) provisions can address States or TNCs.

It should be noted here that the foregoing options are not intended to provide a comprehensive listing of available options, but merely a possible range. Furthermore, while the options are presented individually, they are not necessarily mutually exclusive and indeed, hybrids could be considered when addressing related environmental matters in the negotiation of IIAs.

References

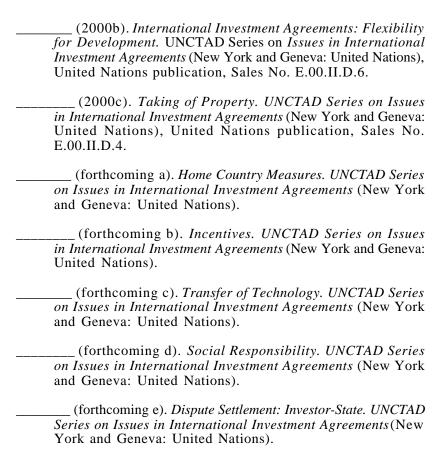
- Adams, J. (1997). "Environmental policy and competitiveness in a globalized economy: conceptual issues and a review of the empirical evidence", in OECD, *Globalization and Environment: Preliminary Perspectives* (Paris: OECD), pp. 53-100.
- Birnie, P. W. and A. E. Boyle (1995). "Instrument establishing the Global Environment Facility, 1995", in *Basic Documents on International Law and the Environment* (Oxford: Clarendon Press), pp. 666 680.
- Bodansky, Daniel (1991). "Scientific uncertainty and the precautionary principle", *Environment*, 33, 7, pp. 4-5 and 43-44.
- Chudnovsky, D. and A. López (1999). "TNCs and the diffusion of environmentally friendly technologies to developing countries" (Copenhagen: Copenhagen Business School), (http://www.cbs.dk/departments/ikl/cbem/Occasional%20 Papers.html).
- Cotonou Agreement (2000). "Partnership Agreement Between the Members of the African, Caribbean and Pacific Group of States on the One Part, and the European Community and its Member States, on the Other Part", Cotonou, Benin, 23 June 2000 (Bruxelles: General Secretariat of the ACP Group), (http://www.acpsec.org/gb/cotonou/accord1e.htm).
- Energy Charter Protocol (ECP) (1995). "Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects: Annex 3 to the Final Act of the European Energy Charter Conference" (Brussels: ECP), (http://www.encharter.org/English/fulltext/treaty19.html).
- Energy Charter Treaty (ECT) (1995). "The Energy Charter Treaty" (Brussels: ECT), (http://www.encharter.org/English/fulltext/effic7.html).
- Eskeland, Gunner and A. Harrison (1997). "Moving to greener pastures? Multinationals and the pollution haven hypothesis" (Washington, D.C.: The World Bank), mimeo.

- Hudec, Robert (1993). Enforcing International Trade Law: The Evolution of the Modern GATT Legal System (Salem, N.H.: Butterworth Legal Publishers).
- International Council of Environmental Law (ICEL) (1995). "Convention on Environmental Impact Assessment in a Transboundary Context", *International Environmental Law: Multilateral Treaties*, VII, 991: 15, pp. 11-29.
- International Legal Materials (ILM) (1979). "United Nations Convention on Long-Range Transboundary Air Pollution", *International Legal Materials*, 18, 6, pp. 1442 1450.
- _____ (1987a). "Vienna Convention for the Protection of the Ozone Layer", *International Legal Materials*, 26, 6, pp. 1529 1540.
- _____(1987b). "Montreal Protocol on Substances that Deplete the Ozone Layer", *International Legal Materials*, 26, 6, pp. 1550 15.
- Transboundary Air Pollution Concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes", *International Legal Material*, 28, 1, pp. 214 230.
- _____ (1991a). "Montreal Protocol Parties: Adjustments and Amendments to the Montreal Protocol on Substances that Deplete the Ozone Layer" (London Amendment), *International Legal Materials*, 30, 2, pp. 537 552.
- _____(1991b). "Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution Concerning the Control of Emissions of Volatile Organic Compounds or Their Transboundary Fluxes", *International Legal Materials*, 31, 3, pp. 568 611.
- _____(1992a). "United Nations Conference on Environment and Development: Framework Convention on Climate Change", *International Legal Materials*, 31, 4, pp. 849 873.

- _____(1992b). "United Nations Conference on Environment and Development: Convention on Biological Diversity", *International Legal Materials*, 31, 4, pp. 818 841.
- _____(1993a). "The North American Free Trade Agreement", International Legal Materials, 32, 2, pp. 289 — 456 and 32, 2, pp. 605 - 799.
- _____(1993b). "North American Agreement on Environmental Cooperation", *International Legal Materials*, 32, 6, pp. 1480 1498.
- (1993c). "United Nations: Montreal Protocol on Substances that Deplete the Ozone Layer. Adjustments and Amendments" (Copenhagen Amendment), *International Legal Materials*, 32, 3, pp. 874 887.
- International Organization for Standardization (ISO) (1998). *The ISO Survey of ISO 9000 and ISO 1400 Certificates* (Geneva: ISO).
- _____(1999). The ISO Survey of ISO 9000 and ISO 14000 Certificates Ninth Cycle (Geneva: ISO).
- Johnson, P. M. and A. Beaulieu (1996). The Environment and NAFTA: Understanding and Implementing the New Continental Law (Washington, D.C.: Island Press).
- Krut, R. and H. Gleckman (1998). ISO 14001: A Missed Opportunity for Sustainable Global Industrial Development (London: EarthScan).
- and A. Moretz (1999). "Home country measures for encouraging sustainable FDI". Paper prepared for the UNCTAD X Seminar "Making FDI work for sustainable development" (Geneva: UNCTAD), mimeo.
- Leonard D. (1998). *Pollution and the Struggle for the World Product* (Cambridge: Cambridge University Press).

- Lucas, R.E.B., D. Wheeler and H. Hettige (1992). "Economic development, environmental regulation and the international migration of toxic industrial pollution: 1960-1988", in P. Low, ed., *International Trade and the Environment* (Washington, D.C.: The World Bank), pp. 67-86.
- Multilateral Investment Guarantee Agency (MIGA) (1999). "Environmental assessment policy" (Washington, D.C.: MIGA), (http://www.miga.org/screens/projects/disclose/environ.htm).
- Organisation for Economic Co-operation and Development (OECD) (2000a). "The OECD Guidelines for Multinational Enterprises: Text, 27 June 2000" (Paris: OECD), (http://www.oecd.org/daf/investment/guidelines/mnetext.htm).
- _____(OECD) (2000b). "The OECD Guidelines for Multinational Enterprises: Review 2000. Commentary, 27 June 2000" (Paris: OECD). (http://www.oecd.org/daf/investment/guidelines/frame.pdf).
- Repetto, R. (1995). Jobs, Competitiveness and Environmental Regulations: What are the Real Issues? (Washington, D.C.: World Resources Institute).
- Sands, Philippe (1995). Principles of International Environmental Law, volume I: Frameworks, Standards and Implementation (Manchester: Manchester University Press).
- United Nations (1982). "United Nations Convention on the Law of the Sea" (New York: United Nations), United Nations document, A/CONF.62/122/Corr.3, 23 November 1982.
- _____(1992). "Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal", 22 March 1989, *United Nations Treaty Series*, vol. 1673, pp. 57-337.
- (1997). "Kyoto Protocol to the United Nations Framework Convention on Climate Change" (New York: United Nations), (http://www.unfccc.org/resource/convkp.htm).

- _____ (1999). Accounting and Financial Reporting for Environmental Costs and Liabilities (New York and Geneva: United Nations), United Nations publication, Sales No. A/C/E/F/R/S.98.II.D.14.
- United Nations Conference on Environment and Development (UNCED) (1993). Earth Summit: Agenda 21, the United Nations Programme of Action from Rio. Agenda 21: Programme of Action for Sustainable Development, Rio Declaration on Environment and Development, Statement of Forest Principles, 3 14 June 1992, Rio de Janeiro, Brazil (New York: United Nations), United Nations publication, Sales No. E. 93.I.11.
- United Nations Conference on the Human Environment (UNCHE) (1972). "Report of the United Nations Conference on the Human Environment" (New York: United Nations), doc. A/CONF.48/14/Rev. 1.
- United Nations Conference on Trade and Development (UNCTAD) (1992). World Investment Report 1992: Transnational Corporations as Engines of Growth (New York: United Nations), United Nations publication, Sales No. E.92.II.A.19.
- _____(1996). International Investment Instruments: A Compendium, vols. I, II and III (New York and Geneva: United Nations), United Nations publications, Sales Nos. E.96.II.A.9,10,11.
- _____(1999a). World Investment Report 1999: Foreign Direct Investment and the Challenge of Development (New York and Geneva: United Nations), United Nations publication, Sales No. E.99.D.3.
- _____(1999b). Admission and Establishment. UNCTAD Series on issues in international investment agreements. 72 p. Sales No. E.99.11.D.10. \$12.
- _____ (2000a). International Investment Instruments: A Compendium, vols. IV and V (New York and Geneva: United Nations), United Nations publications, Sales Nos. E.00.II.D.13, 14.



- United States, Overseas Private Investment Corporation (OPIC) (1999).

 Annual Environmental Report 1998 (Washington, DC.: OPIC).
- Warhurst, A. and G. Bridge (1997). "Economic liberalization, innovation and technology transfer: opportunities for cleaner production in the minerals industry", *Natural Resources Forum*, 21, 1, pp. 1-12.

- Werksman J. and C. Santoro (1998). "Investment in sustainable development: the potential interaction between the Kyoto Protocol and the Multilateral Agreement on Investment", in C. Bradree Chambers, ed., Global Climate Governance: Inter-linkages between the Kyoto Protocol and other Multilateral Regimes (Tokyo: United Nations University), pp. 59 74.
- World Commission on Environment and Development (WCED) (1987). "Our Common Future" (Oxford: Oxford University Press).
- World Trade Organization (WTO) (1995). The Results of the Uruguay Round of Multilateral Trade Negotiations: the Legal Texts (Geneva: WTO). Includes the General Agreement on Tariffs and Trade (1994), pp. 21-38; Agreement on Trade-related Investment Measures (TRIMs), pp. 163-166; the General Agreement on Trade in Services (GATS), pp. 325-364; the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPs), pp. 365-403; and the General Agreement on Tariffs and Trade (1947), pp. 424-492.
- World Wide Fund for Nature (WWF) (1998a). "The OECD, foreign investment and sustainable development: reorienting OECD policy work and the multilateral agreement on investment" (Gland: WWF), mimeo.
- _____ (1998b). "Pollution havens: examining the evidence and redefining the problem" (Surrey: WWF), mimeo.
- _____ (1999a). "Foreign direct investment and the environment: from pollution havens to sustainable development" (Surrey: WWF), mimeo.
- _____(1999b). "Foreign investment in the Asia Pacific mining sector: national policies, economic liberalisation and environmental and social effects" (Gland: WWF), mimeo.
- Xing, Y. and C. Kolstad (1997). "Do lax environmental regulations attract foreign investment?", Working Paper in Economics No. 6-95R (Santa Barbara: University of California), mimeo.

Selected UNCTAD publications on transnational corporations and foreign direct investment

A. IIA Issues Paper Series

Transfer of funds. UNCTAD Series on Issues in International Investment Agreements. 68 p. Sales No. E.00.II.D.27. \$12.

Employment. UNCTAD Series on Issues in International Investment Agreements. 58 p. Sales No. E.00.II.D.15. \$10.

International Investment Agreements: Flexibility for Development. UNCTAD Series on Issues in International Investment Agreements. 170 p. Sales No. E.00.II.D.6. \$12.

Taxation. UNCTAD Series on Issues in International Investment Agreements. 100 p. Sales No. E.00.II.D.5. \$12.

Taking of Property. UNCTAD Series on Issues in International Investment Agreements. 75p. Sales No. E.00.II.D.4. \$12.

Trends in International Investment Agreements: An Overview. UNCTAD Series on Issues in International Investment Agreements. 123 p. Sales No. E.99.II.D.23. \$12.

Lessons from the MAI. UNCTAD Series on Issues in International Investment Agreements. 31p. Sales No. E.99.II.D.26. \$12.

National Treatment. UNCTAD Series on Issues in International Investment Agreements. 75p. Sales No. E.99.II.D.16. \$12.

Fair and Equitable Treatment. UNCTAD Series on Issues in International Investment Agreements. 66 p. Sales No. E.99.II.D.15. \$12.

Investment-Related Trade Measures. UNCTAD Series on Issues in International Investment Agreements. 64 p. Sales No. E.99.II.D.12. \$12.

Most-Favoured-Nation Treatment. UNCTAD Series on Issues in International Investment Agreements. 72 p. Sales No. E.99.II.D.11. \$12.

Admission and Establishment. UNCTAD Series on Issues in International Investment Agreements. 72 p. Sales No. E.99.II.D.10. \$12. (English and French).

Scope and Definition. UNCTAD Series on Issues in International Investment Agreements. 96p. Sales No. E.99.II.D.9. \$12.

Transfer Pricing. UNCTAD Series on Issues in International Investment Agreements. 72 p. Sales No. E.99.II.D.8. \$12.

Foreign Direct Investment and Development. UNCTAD Series on Issues in International Investment Agreements. 88 p. Sales No. E.98.II.D.15. \$12.

B. Individual studies

Investment Policy Review of Peru. 108 p. Sales No. E.00.II.7. \$22.

The Role of Publicly Funded Research and Publicly Owned Technologies in the Transfer and Diffusion of Environmentally Sound Technologies. 445 p. Sales No. E.00.II.D.37. \$45.

World Investment Report 2000: Cross-border Mergers and Acquisitions and Development. 337 p. Sales No. E.00.II.D.20.

World Investment Report 2000: Cross-border Mergers and Acquisitions and Development. An overview 65 p. Free of change.

International Investment Instruments: A Compendium. Vol. IV. 298 p.; Vol. V. 473 p. Sales No. E.00.II.D.13 and E.00.II.D.14. \$60 and \$42.

FDI Determinants and TNCs Strategies: The Case of Brazil. 195 p. Sales No. E.00.II.D.2, \$35.

World Investment Directory. Vol. VII: Asia and the Pacific 2000. 644 p. Sales No. E.00.II.D.11.

World Investment Report 1999: Foreign Direct Investment and the Challenge of Development. 536 p. Sales No. E.99.II.D.3. \$45.

World Investment Report 1999: Foreign Direct Investment and the Challenge of Development. An Overview 75 p. Free-of-charge.

Investment Policy Review of Uganda. 75 p. Sales No. E.99.II.D.24. \$15.

Investment Policy Review of Egypt. 113 p. Sales No. E.99.II.D.20. \$19.

Science, Technology and Innovation Policy Review of Colombia. 175 p. Sales No. E.99.II.D.13. \$23.

Foreign Direct Investment in Africa: Performance and Potential. 89 p. UNCTAD/ITE/IIT/Misc. 15.

Investment Policy Review of Uzbekistan. 64 p. UNCTAD/ITE/IIP/Misc. 13. Free-of-charge.

The Financial Crisis in Asia and Foreign Direct Investment: An Assessment. 101 p. Sales No. GV.E.98.0.29. \$20.

Science, Technology and Innovation Policy Review of Jamaica. 172 p. Sales No. E.98.II.D.7. \$42.

World Investment Report 1998: Trends and Determinants. 430 p. Sales No. E.98.II.D.5. \$45.

World Investment Report 1998: Trends and Determinants. An Overview. 67 p. Free-of-charge.

Bilateral Investment Treaties in the mid-1990s. 314 p. Sales No. E.98.II.D.8. \$46.

Handbook on Foreign Direct Investment by Small and Mediumsized Enterprises: Lessons from Asia. 200 p. Sales No. E.98.II.D.4. \$48.

Handbook on Foreign Direct Investment by Small and Mediumsized Enterprises: Lessons from Asia. Executive Summary and Report on the Kunming Conference. 74 p. Free-of-charge.

International Investment Towards the Year 2002. 166 p. Sales No. GV.E.98.0.15. \$29. (Joint publication with Invest in France Mission and Arthur Andersen, in collaboration with DATAR.)

World Investment Report 1997: Transnational Corporations, Market Structure and Competition Policy. 420 p. Sales No. E.97.II.D.10. \$45.

World Investment Report 1997: Transnational Corporations, Market Structure and Competition Policy. An Overview. 70 p. Free-of-charge.

International Investment Towards the Year 2001. 81 p. Sales No. GV.E.97.0.5. \$35. (Joint publication with Invest in France Mission and Arthur Andersen, in collaboration with DATAR.)

World Investment Directory. Vol. VI: West Asia 1996. 192 p. Sales No. E.97.II.A.2. \$35.

World Investment Directory. Vol. V: Africa 1996. 508 p. Sales No. E.97.II.A.1. \$75.

Sharing Asia's Dynamism: Asian Direct Investment in the European Union. 192 p. Sales No. E.97.II.D.1. \$26.

Transnational Corporations and World Development. 656 p. ISBN 0-415-08560-8 (hardback), 0-415-08561-6 (paperback). £65 (hardback), £20.00 (paperback). (Published by International Thomson Business Press on behalf of UNCTAD.)

Companies without Borders: Transnational Corporations in the 1990s. 224 p. ISBN 0-415-12526-X. £47.50. (Published by International Thomson Business Press on behalf of UNCTAD.)

The New Globalism and Developing Countries. 336 p. ISBN 92-808-0944-X. \$25. (Published by United Nations University Press.)

Investing in Asia's Dynamism: European Union Direct Investment in Asia. 124 p. ISBN 92-827-7675-1. ECU 14. (Joint publication with the European Commission.)

World Investment Report 1996: Investment, Trade and International Policy Arrangements. 332 p. Sales No. E.96.II.A.14. \$45.

World Investment Report 1996: Investment, Trade and International Policy Arrangements. An Overview 51 p. Free-of-charge.

International Investment Instruments: A Compendium. Vol. I. 371 p. Sales No. E.96.II.A.9; Vol. II. 577 p. Sales No. E.96.II.A.10; Vol. III. 389 p. Sales No. E.96.II.A.11; the 3-volume set, Sales No. E.96.II.A.12. \$125.

World Investment Report 1995: Transnational Corporations and Competitiveness. 491 p. Sales No. E.95.II.A.9. \$45.

World Investment Report 1995: Transnational Corporations and Competitiveness. An Overview. 51 p. Free-of-charge.

Accounting for Sustainable Forestry Management. A Case Study. 46 p. Sales No. E.94.II.A.17. \$22.

Small and Medium-sized Transnational Corporations. Executive Summary and Report of the Osaka Conference. 60 p. Free-of-charge.

World Investment Report 1994: Transnational Corporations, Employment and the Workplace. 482 p. Sales No. E.94.II.A.14. \$45.

World Investment Report 1994: Transnational Corporations, Employment and the Workplace. An Executive Summary. 34 p. Free-of-charge.

Liberalizing International Transactions in Services: A Handbook. 182 p. Sales No. E.94.II.A.11. \$45. (Joint publication with the World Bank.)

World Investment Directory. Vol. IV: Latin America and the Caribbean. 478 p. Sales No. E.94.II.A.10. \$65.

Conclusions on Accounting and Reporting by Transnational Corporations. 47 p. Sales No. E.94.II.A.9. \$25.

Accounting, Valuation and Privatization. 190 p. Sales No. E.94.II.A.3. \$25.

Environmental Management in Transnational Corporations: Report on the Benchmark Corporate Environment Survey. 278 p. Sales No. E.94.II.A.2. \$29.95.

Management Consulting: A Survey of the Industry and Its Largest Firms. 100 p. Sales No. E.93.II.A.17. \$25.

Transnational Corporations: A Selective Bibliography, 1991-1992. 736 p. Sales No. E.93.II.A.16. \$75. (English/French.)

Small and Medium-sized Transnational Corporations: Role, Impact and Policy Implications. 242 p. Sales No. E.93.II.A.15. \$35.

World Investment Report 1993: Transnational Corporations and Integrated International Production. 290 p. Sales No. E.93.II.A.14. \$45.

World Investment Report 1993: Transnational Corporations and Integrated International Production. An Executive Summary. 31 p. ST/CTC/159. Free-of-charge.

Foreign Investment and Trade Linkages in Developing Countries. 108 p. Sales No. E.93.II.A.12. \$18.

World Investment Directory 1992. Vol. III: Developed Countries. 532 p. Sales No. E.93.II.A.9. \$75.

Transnational Corporations from Developing Countries: Impact on Their Home Countries. 116 p. Sales No. E.93.II.A.8. \$15.

Debt-Equity Swaps and Development. 150 p. Sales No. E.93.II.A.7. \$35.

From the Common Market to EC 92: Regional Economic Integration in the European Community and Transnational Corporations. 134 p. Sales No. E.93.II.A.2. \$25.

World Investment Directory 1992. Vol. II: Central and Eastern Europe. 432 p. Sales No. E.93.II.A.1. \$65. (Joint publication with the United Nations Economic Commission for Europe.)

The East-West Business Directory 1991/1992. 570 p. Sales No. E.92.II.A.20. \$65.

World Investment Report 1992: Transnational Corporations as Engines of Growth: An Executive Summary. 30 p. Sales No. E.92.II.A.24. Free-of-charge.

World Investment Report 1992: Transnational Corporations as Engines of Growth. 356 p. Sales No.E.92.II.A.19. \$45.

World Investment Directory 1992. Vol. I: Asia and the Pacific. 356 p. Sales No. E.92.II.A.11. \$65.

Climate Change and Transnational Corporations: Analysis and Trends. 110 p. Sales No. E.92.II.A.7. \$16.50.

Foreign Direct Investment and Transfer of Technology in India. 150 p. Sales No. E.92.II.A.3. \$20.

The Determinants of Foreign Direct Investment: A Survey of the Evidence. 84 p. Sales No. E.92.II.A.2. \$12.50.

The Impact of Trade-Related Investment Measures on Trade and Development: Theory, Evidence and Policy Implications. 108 p. Sales No. E.91.II.A.19. \$17.50. (Joint publication with the United Nations Centre on Transnational Corporations.)

Transnational Corporations and Industrial Hazards Disclosure. 98 p. Sales No. E.91.II.A.18. \$17.50.

Transnational Business Information: A Manual of Needs and Sources. 216 p. Sales No. E.91.II.A.13. \$45.

World Investment Report 1991: The Triad in Foreign Direct Investment. 108 p. Sales No.E.91.II.A.12. \$25.

C. Serial publications

Current Studies, Series A

No. 30. *Incentives and Foreign Direct Investment*. 98 p. Sales No. E.96.II.A.6. \$30. (English/French.)

No. 29. Foreign Direct Investment, Trade, Aid and Migration. 100 p. Sales No. E.96.II.A.8. \$25. (Joint publication with the International Organization for Migration.)

No. 28. Foreign Direct Investment in Africa. 119 p. Sales No. E.95.II.A.6, \$20.

No. 27. *Tradability of Banking Services: Impact and Implications.* 195 p. Sales No. E.94.II.A.12. \$50.

No. 26. Explaining and Forecasting Regional Flows of Foreign Direct Investment. 58 p. Sales No. E.94.II.A.5. \$25.

- No. 25. International Tradability in Insurance Services. 54 p. Sales No. E.93.II.A.11. \$20.
- No. 24. Intellectual Property Rights and Foreign Direct Investment. 108 p. Sales No. E.93.II.A.10. \$20.
- No. 23. The Transnationalization of Service Industries: An Empirical Analysis of the Determinants of Foreign Direct Investment by Transnational Service Corporations. 62 p. Sales No. E.93.II.A.3. \$15.
- No. 22. Transnational Banks and the External Indebtedness of Developing Countries: Impact of Regulatory Changes. 48 p. Sales No. E.92.II.A.10. \$12.
- No. 20. Foreign Direct Investment, Debt and Home Country Policies. 50 p. Sales No. E.90.II.A.16. \$12.
- No. 19. New Issues in the Uruguay Round of Multilateral Trade Negotiations. 52 p. Sales No. E.90.II.A.15. \$12.50.
- No. 18. Foreign Direct Investment and Industrial Restructuring in Mexico. 114 p. Sales No. E.92.II.A.9. \$12.
- No. 17. Government Policies and Foreign Direct Investment. 68 p. Sales No. E.91.II.A.20. \$12.50.

The United Nations Library on Transnational Corporations (Published by Routledge on behalf of the United Nations.)

Set A (Boxed set of 4 volumes. ISBN 0-415-08554-3-350): Volume One: *The Theory of Transnational Corporations*. 464 p. Volume Two: *Transnational Corporations: A Historical Perspective*. 464 p.

Volume Three: Transnational Corporations and Economic Development. 448 p.

Volume Four: *Transnational Corporations and Business Strategy*. 416 p.

Set B (Boxed set of 4 volumes. ISBN 0-415-08555-1-350):

Volume Five: International Financial Management. 400 p.

Volume Six: *Organization of Transnational Corporations*. 400 p. Volume Seven: *Governments and Transnational Corporations*. 352 p.

Volume Eight: *Transnational Corporations and International Trade and Payments*. 320 p.

Set C (Boxed set of 4 volumes. ISBN 0-415-08556-X-350):

Volume Nine: Transnational Corporations and Regional Economic Integration. 331 p.

Volume Ten: Transnational Corporations and the Exploitation of Natural Resources. 397 p.

Volume Eleven: *Transnational Corporations and Industrialization*. 425 p.

Volume Twelve: Transnational Corporations in Services. 437 p.

Set D (Boxed set of 4 volumes. ISBN 0-415-08557-8-350):

Volume Thirteen: Cooperative Forms of Transnational Corporation Activity. 419 p.

Volume Fourteen: *Transnational Corporations: Transfer Pricing and Taxation*. 330 p.

Volume Fifteen: Transnational Corporations: Market Structure and Industrial Performance. 383 p.

Volume Sixteen: *Transnational Corporations and Human Resources*. 429 p.

Set E(Boxed set of 4 volumes. ISBN 0-415-08558-6-350):

Volume Seventeen: *Transnational Corporations and Innovatory Activities*. 447 p.

Volume Eighteen: Transnational Corporations and Technology Transfer to Developing Countries. 486 p.

Volume Nineteen: *Transnational Corporations and National Law*. 322 p.

Volume Twenty: Transnational Corporations: The International Legal Framework. 545 p.

D. Journals

Transnational Corporations (formerly The CTC Reporter).

Published three times a year. Annual subscription price: \$45; individual issues \$20.

ProInvest, a quarterly newsletter, available free of charge.

United Nations publications may be obtained from bookstores and distributors throughout the world. Please consult your bookstore or write to:

United Nations Publications

Sales Section OR Sales Section

Room DC2-0853 United Nations Office at Geneva
United Nations Secretariat Palais des Nations

United Nations Secretariat
New York, NY 10017

U.S.A.

Palais des Nations
CH-1211 Geneva 10
Switzerland

Tel: (1-212) 963-8302 or Tel: (41-22) 917-1234 (800) 253-9646

Fax: (1-212) 963-3489 Fax: (41-22) 917-0123 E-mail: publications@un.org E-mail: unpubli@unorg.ch

All prices are quoted in United States dollars.

For further information on the work of the Division on Investment, Technology and Enterprise Development, UNCTAD, please address inquiries to:

United Nations Conference on Trade and Development
Division on Investment, Technology and Enterprise Development
Palais des Nations, Room E-9123
CH-1211 Geneva 10
Switzerland
Telephone:(41-22) 907-5707
Telefax:(41-22) 907-0194

QUESTIONNAIRE

Environment

Sales No. E.01.II.D.3

In order to improve the quality and relevance of the work of the UNCTAD Division on Investment, Technology and Enterprise Development, it would be useful to receive the views of readers on this and other similar publications. It would therefore be greatly appreciated if you could complete the following questionnaire and return it to:

Readership Survey
UNCTAD Division on Investment, Technology and Enterprise
Development
United Nations Office at Geneva
Palais des Nations
Room E-9123
CH-1211 Geneva 10
Switzerland
Fax: 41-22 907-0194

Environment

2.	Which of the fol	describes your area c	of work?				
	Government		Public enterprise				
	Private enterprise institution		Academic or research				
	International organization		Media				
	Not-for-profit organization		Other (specify)				
3.	In which country do you work?						
4.	What is your assessment of the contents of this publicatio						
	Excellent		Adequate				
	Good		Poor				
5.	How useful is this publication to your work?						
	Very useful	Of some use	e 🔲 Irrelevant [
6. publi	Please indicate cation:	the three th	nings you liked best	about this			
7. publi	Please indicate t cation:	he three thi	ngs you liked least ab	out this			

8. If you have read more than the present publication of the UNCTAD Division on Investment, Technology and Enterprise Development, what is your overall assessment of them?									
	Consistently	/ good		Usually goo some excep					
	Generally m	nediocre		Poor					
9. in yo	On the average, how useful are these publications to you your work?								
	Very useful	Of so	ome us	e 🔲 Ir	relevant []			
10. (form journ	ierly <i>The C</i>	regular recip TC Reporte i	pient o r), the	f Transnati Division's	onal Corpo tri-annual re	<i>rations</i> efereed			
	Yes			No					
If not, please check here if you would like to receive a sample copy sent to the name and address you have given above									