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Environmental Concerns in International Investment Agreements

A SURVEY

Kathryn Gordon, Joachim Pohl

JEL Classification: F02, F18, F21, F23, F42, F53, K32, K33, N40, N50, N70, Q56, Q58

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Abstract

ENVIRONMENTAL CONCERNS IN INTERNATIONAL INVESTMENT AGREEMENTS: A SURVEY

by

Kathryn Gordon and Joachim Pohl*

International investment agreements define commitments on investment protection, but also shed light on how these commitments are to be integrated with other public policy objectives. Investment protection in the context of environmental regulation has been a frequent source of controversy and investor-state disputes. In order to enhance the factual basis for debate in this policy area, the present survey establishes a statistical portrait of governments' investment treaty writing practices in relation to environmental concerns in a sample of 1,623 IIAs, roughly half of the global investment treaty population. The survey provides a statistical portrait of the extent, kind and frequency of treaty language referring to environmental concerns and the evolution of the use of such language over time. It shows that: i) over time, more treaties contain such language; ii) only about 8% of the sample treaties include references to environmental concerns; and iii) there are wide variations in the content of such language, both across countries and across time.

JEL classification: F02, F18, F21, F23, F42, F53, K32, K33, N40, N50, N70, Q56, Q58
Keywords: foreign investment; international investment; international investment law; international environmental law; international investment agreements; bilateral investment treaties; environmental protection; international arbitration; regulation.

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Further information on investment-related work at the OECD may be found at www.oecd.org/daf/investment.

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Executive Summary

This study surveys the use of references to environmental concerns in a sample of 1,623 international investment agreements (IIAs) that the 49 countries that are invited to the "Freedom of Investment" process have concluded with any other country.[1] The survey assesses the extent, kind and frequency of such language in IIAs as well as the evolution of its use over time. In addition to analysing 1,593 BITs and 30 other bilateral agreements with investment chapters – mainly free trade agreements – the survey also reviews several model BITs and selected multilateral agreements with investment provisions.

The study updates and expands an earlier survey of environmental content in international investment agreements that the OECD Investment Committee discussed and adopted in 2007.[2] The key findings of the present study include the following:

- *Language referring to environmental concerns is rare in BITs but common in non-BIT IIAs*. In the treaty sample, 133, or 8.2%, of the IIAs contain a reference to environmental concerns. All 30 non-BIT IIAs contain such references, but only 6.5% of BITs do.
- *Country practices regarding environmental language in treaties vary*. Nineteen of the 49 countries covered in the study never use such language in their treaties. In contrast, a few countries systematically began including environmental language in treaties and such language appears in all of their treaties after a given date (Canada, Mexico and the United States since the early 1990s, and Belgium/Luxembourg more recently). Several countries appear to have no autonomous policy of including such language, but tolerate its inclusion in treaties signed with countries that have a preference for such language.
- *Inclusion of environmental language is becoming more common*. The first occurrence of such language in the IIA sample is in the 1985 China-Singapore BIT. A decade passed before environmental concerns were included in a sizeable number of BITs, and only another ten years later, in 2005, the proportion of newly concluded treaties with environmental concerns passed the threshold of 50% of new treaties concluded in a given year.
- *Much idiosyncratic variation, limited number of policy themes addressed, but major strategic differences among countries in terms of their positioning with respect to these themes*. Although significant variance can be observed in the details of the provisions and identical language across treaties is rare, almost all these provisions are variations on a limited number of themes addressing distinct policy purposes. Nevertheless, treaties show significant variation with respect to their treatment of these themes – some include only preamble language while others feature extensive language on more specific issues such as performance requirements and indirect expropriation.
- *Environmental language addresses seven distinct policy purposes.* These include:
  - *General language in preambles* that establishes protection of the environment as a concern of the parties to the treaty; 66 treaties (4.1%) contain such language.

[1] Austria, Argentina, Australia, Belgium, Brazil, Canada, Chile, China, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Norway, Peru, Poland, Portugal, Romania, Russian Federation, Saudi Arabia, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

[2] "*International Investment Agreements: A survey of Environmental, Labour and anti-corruption issues*", DAF/INV/WP/WD(2007)2/REV1 and DAF/INV/WP/WD(2007)2/REV1/ANN1.

- *Reserving policy space for environmental regulation* for the entire treaty; this is the most common category of language – it appears in 82 treaties (5.2%).
- *Reserving policy space for environmental regulation for specific subject matters* (e.g. performance requirements and national treatment); this language appears in 20 treaties (1.3%), of which 16 are FTAs and only 4 BITs.
- *Indirect expropriation*: Twelve of the treaties (0.75%) contain provisions that preclude non-discriminatory environmental regulation as a basis for claims of "indirect expropriation".
- *Not lowering environmental standards to attract investment*: Forty-nine treaties (3.1%) contain provisions that discourage the loosening of environmental regulation for the purpose of attracting investment.
- *Environmental matters and investor-state dispute settlement.* Sixteen treaties (1%) contain provisions related to the recourse to environmental experts by arbitration tribunals. One treaty excludes the environmental provisions as a basis for investor-state claims.
- *General promotion of progress in environmental protection and cooperation*. Twenty treaties (1.3%) contain provisions that encourage strengthening of environmental regulation and cooperation.

- *The frequency of the use of environmental language in IIAs has generally increased over time, but this increase is not monotonic*. Over the long term, the proportion of IIAs that contain references to environmental concerns has increased. However, during the early 1990s and the early 2000s, the frequency of some approaches to include references to environmental concerns suffered a relative decline year-on-year. Recently, the use of clauses that reserve policy space for environmental regulation and references in treaty preambles has stagnated.
- *The set of environmental concerns that receive an explicit mentioning in IIAs is limited and has hardly evolved over time.* The language that characterises environmental concerns is either generic, or, where individual aspects are mentioned, dates back to the text of the 1948 General Agreement on Tariffs and Trade. More recent concerns, such as climate change and biodiversity, have not penetrated this closed set of issues, although such more recent concerns feature in the Energy Charter treaty, a multilateral agreement. This finding suggests a limited exchange between the investment and environmental policy communities.

This survey portrays statistically the characteristics of environmental language in a sample of investment treaties; it does not seek to explain the statistical findings nor does it assign legal significance to differences in state practice with regard to this language. There may be merit in further reflection on these two aspects, however, to understand better the objectives and effect of different approaches in treaty negotiation. This could inform treaty negotiators and treaty users – investors, host governments, and arbitral tribunals – to enhance predictability and legitimacy of decisions in relation to investment treaties.

With respect to the statistical findings and the legal significance of the different approaches to treaty writing, further analysis could notably address the questions:

- Why are references to environmental concerns common in FTAs with investment chapters while they are rare in BITs?
- What factors drive or limit change in relation to States' treaty writing practice?
- Does the inclusion of references to environmental concerns in IIAs bring benefits for reconciling openness to foreign investment and protection of environmental concerns?
- Which approach provides treaty partners the most controlled, versatile and dynamic expression of their views on the relationship between environmental and investment norms?

I. Introduction

International investment agreements define how the treaty partners balance investor protection with other public policy objectives. As environmental concerns have moved up societies' priority lists, environmental protection has also left its mark as a concern during treaty negotiations. Investment arbitration provides preliminary considerations on how environmental regulation interacts with investment treaty concepts such as national treatment, indirect expropriation and fair and equitable treatment.

The investment policy community at the OECD has repeatedly considered State practice in balancing openness to foreign investment with other public policy objectives.[3] In 2007, the OECD investment policy community has discussed a survey of environmental, labour and anti-corruption issues in international investment agreements.[4] The present document updates and enhances this earlier survey and focuses solely on governments' approaches to reflecting environmental concerns in their investment treaties.

The present survey establishes a statistical portrait of governments' investment treaty writing practice in relation to environmental concerns in a sample of 1,623 IIAs, thus covering roughly half of the global investment treaty population.[5] The sample includes all IIAs that participants in OECD-hosted investment dialogue – that is, 49 countries[6] plus the European Commission – have concluded with any other country, provided that the full text of the treaty was available on the Internet in July 2010.[7]

The survey restricts itself to a statistical characterisation of the extent, kind and frequency of language referring to environmental concerns and the evolution of the use of such language over time; it does not analyse the legal significance of this content, although it does provide a starting point for such analysis.

Broadly described, state practice can be characterised as follows:

- A large, but declining, proportion of BITs remain silent on environmental matters; in contrast, all FTAs in the sample refer to environmental concerns in an investment context.
- Most references to environmental concerns seek to define aspects of the environment/investment relationship that fall into seven categories: contextual language in preambles; not lowering environmental standards in order to attract investment; general right-to-regulate language or reserving environmental policy space; right to regulate in relation to specific treaty provisions (e.g. indirect expropriation); recourse to experts in dispute resolution; and intergovernmental consultation on environmental matters.
- Although environmental issues covered in investment treaties address a limited number of concerns, the treaties in the sample and the countries that are party to them vary in their approach to these issues. Some treaties feature only short references in their preamble, while others dedicate longer sections to environmental concerns.

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3 Several studies were dedicated to approaches to balance openness to foreign investment with national security. For the complete work accomplished in this area, visit www.oecd.org/daf/investment/foi.

4 Kathryn Gordon and Monica Bose. "International Investment Agreements: A survey of Environmental, Labour and Anti-Corruption Issues", DAF/INV/WP/WD(2007)2/REV1 and DAF/INV/WP/WD(2007)2/REV1/ANN1.

5 According to UNCTAD data, there were, at the end of 2009, 2750 BITs and 295 other IIAs, including several dozen free trade agreements that include provisions on investment promotion or protection. World Investment Report 2010, Chapter III.B, page 81.

6 Austria, Argentina, Australia, Belgium, Brazil, Canada, Chile, China, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Norway, Peru, Poland, Portugal, Romania, Russian Federation, Saudi Arabia, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

7 A description of the methodology, the sources used, and the treaties included in the sample of the study is available in Annex 1.

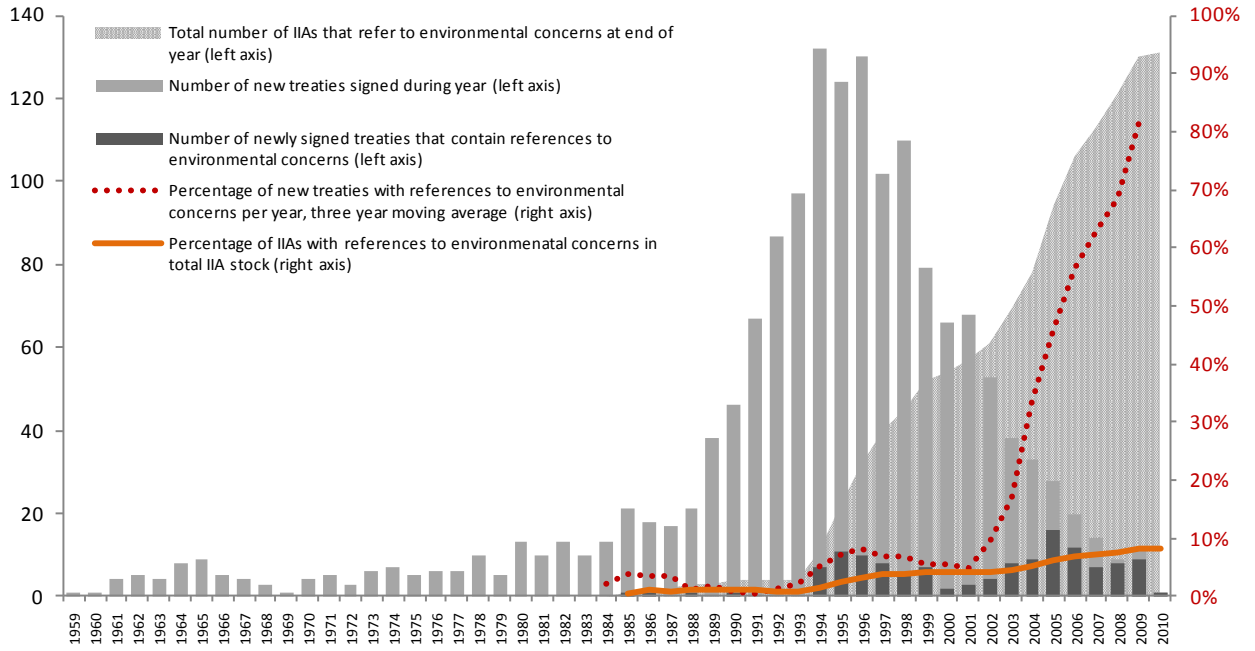
- IIAs also show "idiosyncratic variation" in the language they use to describe environmental concerns. Thus, while the broad policy purpose of language is limited to the policy themes or concerns just described, even the descriptions of these themes is subject to small differences in formulations for a given category of language.

II. Patterns and trends in the use of references to environmental concerns in IIAs

The prevalence of environmental language in the treaty sample is low, but growing. The survey shows that 133 IIAs, or 8.2% of the sample, contain environmental language of one kind or another. Figure 1 depicts the prevalence of such language in treaties signed between 1959 and 2010 insofar as they are included in the sample. Following the first occurrence of environmental language in the 1985 China-Singapore BIT, the use of such language continued to be very rare until about the mid-1990s. Then, the proportion of newly concluded IIAs that contain environmental language began to increase moderately, and, from about 2002 onwards, steeply (dotted line, right scale), reaching a peak in 2008, when 89% of newly concluded treaties contain references to environmental concerns. This high percentage partly reflects the larger proportion of FTAs with investment chapters signed in 2008. It should also be noted, however, that the treaty sample in recent years is not complete because of lags in including treaties in online databases. The finding that recent treaties are much more likely to include such language may not prove to be robust once additional treaties are added to the sample.

Despite the observed increase, the stock of BITs that contain environmental language remains relatively small (solid grey area, left scale).

Figure 1. Prevalence of environmental language in IIAs



Countries show marked differences in their propensity to include environmental language in their investment treaties. Overall, 30 of the 49 countries covered by the survey have included environmental language in at least one of their IIAs; thus, slightly less than half of the countries covered never include such language in their IIAs (Table 1). Some countries only very occasionally include such language. For

example, Egypt, the United Kingdom and Germany have just one treaty with environmental language out of 73, 98 and 122 treaties in the sample, respectively. Countries with relatively high propensities to include such language include: Canada (83% of its sample treaties), New Zealand (3 out of its 4 treaties in the sample), Japan (61% of its treaties), the United States (34%), and Finland (26%).

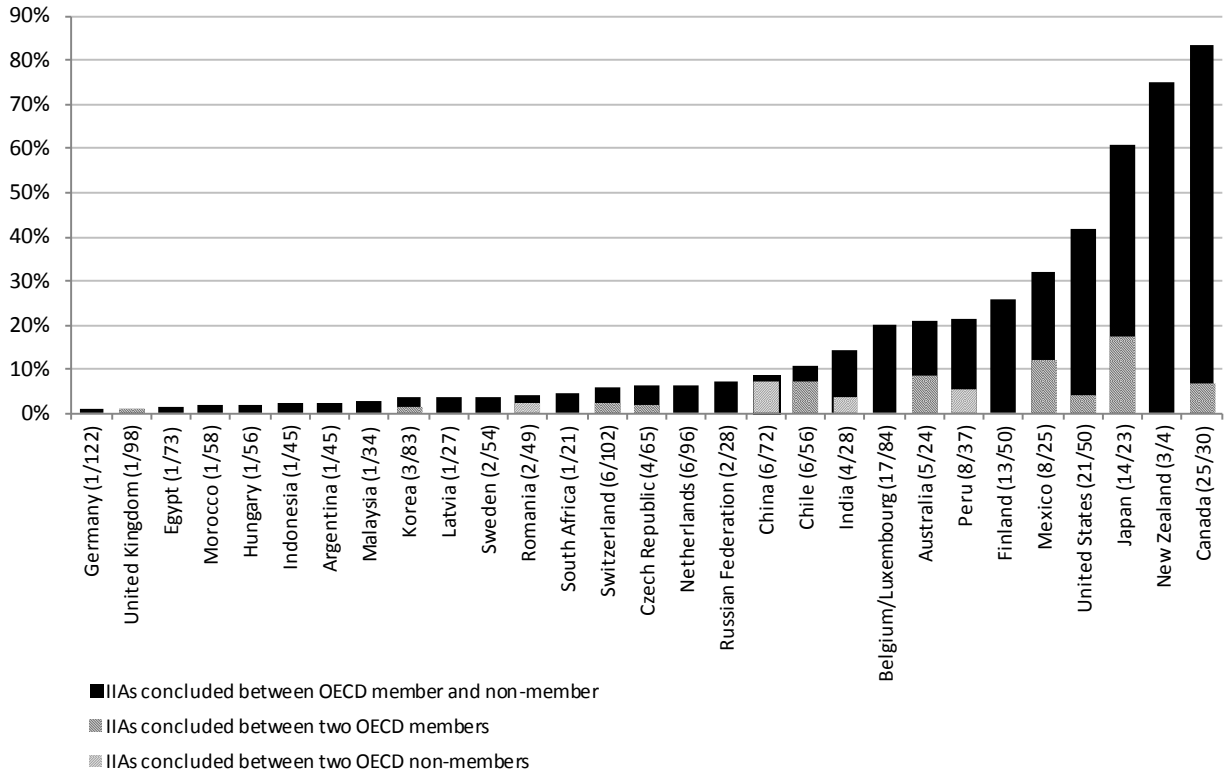
Table 1: IIA references to environmental concerns: Country summary

Country	Number of treaties included in the sample	Number of treaties that refer to environmental concerns	Percentage of treaties that refer to environmental concerns	First occurrence in a BIT in the sample
Austria	47	0	0%	—
Argentina	45	1	2%	1999
Australia	24	5	21%	1999
Belgium/Luxembourg	84	17	20%	2004
Brazil	8	0	0%	—
Canada	30	25	83%	1990
Chile	56	6	11%	1996
China	72	6	8%	1985
Czech Republic	65	4	6%	1990
Denmark	39	0	0%	—
Egypt	73	1	1%	1996
Estonia	15	0	0%	—
Finland	50	13	26%	2000
France	92	0	0%	—
Germany	122	1	1%	2006
Greece	38	0	0%	—
Hungary	56	1	2%	1995
Iceland	3	0	0%	—
India	28	4	14%	1996
Indonesia	45	1	2%	2007
Ireland	1	0	0%	—
Israel	12	0	0%	—
Italy	46	0	0%	—
Japan	23	14	61%	2002
Korea	83	3	5%	1996
Latvia	27	1	4%	2009
Lithuania	29	0	0%	—
Malaysia	34	1	3%	2005
Mexico	25	8	32%	1995
Morocco	58	1	2%	2004
Netherlands	96	6	6%	1999
New Zealand	4	3	75%	1988
Norway	15	0	0%	—
Peru	37	8	22%	2005
Poland	33	0	0%	—
Portugal	44	0	0%	—
Romania	49	2	4%	1996
Russian Federation	28	2	7%	1995
Saudi Arabia	8	0	0%	—
Slovakia	25	0	0%	—
Slovenia	18	0	0%	—
South Africa	21	1	5%	1995

Country	Number of treaties included in the sample	Number of treaties that refer to environmental concerns	Percentage of treaties that refer to environmental concerns	First occurrence in a BIT in the sample
Spain	59	0	0%	—
Sweden	54	2	4%	1995
Switzerland	101	5	5%	1994
Turkey	62	0	0%	—
United Kingdom	98	1	1%	2006
United States	44	15	34%	1994

Inclusion of environmental language in investment treaties is not a practice limited to OECD member countries. Figure 2 shows the percentage of a given country's IIAs that contain language referring to environmental issues.[8] Figure 2 also indicates the share of IIAs with environmental language that OECD Members have concluded with another OECD Member, with non-members as well as the share of IIAs that non-Members have concluded with other non-Members. Overall, 6% of the OECD-OECD IIAs contain environmental language, 3.4% of the IIAs signed between non-Members, and 9.5% of the OECD-non-OECD IIAs.

Figure 2. Proportion of IIAs with environmental language in a given country's IIA population



[8] Only countries that have at least one IIA with language referring to environmental concerns are listed.

III. The policy purpose of references to environmental concerns in IIAs

An examination of the content of environmental language in investment treaties sheds light on the policy purpose it is designed to serve. These purposes can be arranged in the following 7-part typology:[9]

- *General language in preambles* that mentions environmental concerns and establishes protection of the environment as a concern of the parties to the treaty; 66 of the treaties contain this language.
- *Reserving policy space for environmental regulation* for the entire treaty; this is the most common category of language – it appears in 82 of the treaties.
- *Reserving policy space for environmental regulation for more specific, limited subject matters* (performance requirements and national treatment); 20 treaties in the sample, predominantly FTAs, contain such language.
- *Indirect expropriation*: 12 of the treaties contain provisions that clarify the understanding of the parties that non-discriminatory environmental regulation does not constitute "indirect expropriation";
- *Not lowering environmental standards*: 49 of the treaties contain provisions that discourage the loosening of environmental regulation for the purpose of attracting investment;
- *Environmental matters and investor-state dispute settlement*: 16 treaties contain provisions related to the recourse to environmental experts by arbitration tribunals. One treaty excludes investor-state claims based on obligations undertaken in the treaty's environmental provisions.
- *General promotion of progress in environmental protection and cooperation*: 20 treaties contain provisions that encourage strengthening of environmental regulation and cooperation.

Annex 2 shows which treaties in the sample contain references that fall in these categories of policy purpose; only treaties that contain environmental language are listed in the table. Annex 2 shows that, while the number of environmental policy concerns addressed in the treaty sample is limited, the approaches of both individual treaties and countries to this matter varies widely. Some treaties contain only preamble language (36 of the treaties shown in Annex 2 contain only general environmental language in the preamble). Others contain only one mention of other issues (36 treaties mention only preserving policy space for environmental regulation). Still others treaties contain extensive language covering many of these policy purposes – for example, 5 of the treaties shown in Annex 2 cover 5 or more of the policy purposes (two with Canada as a signatory, one with Chile and two with the United States).

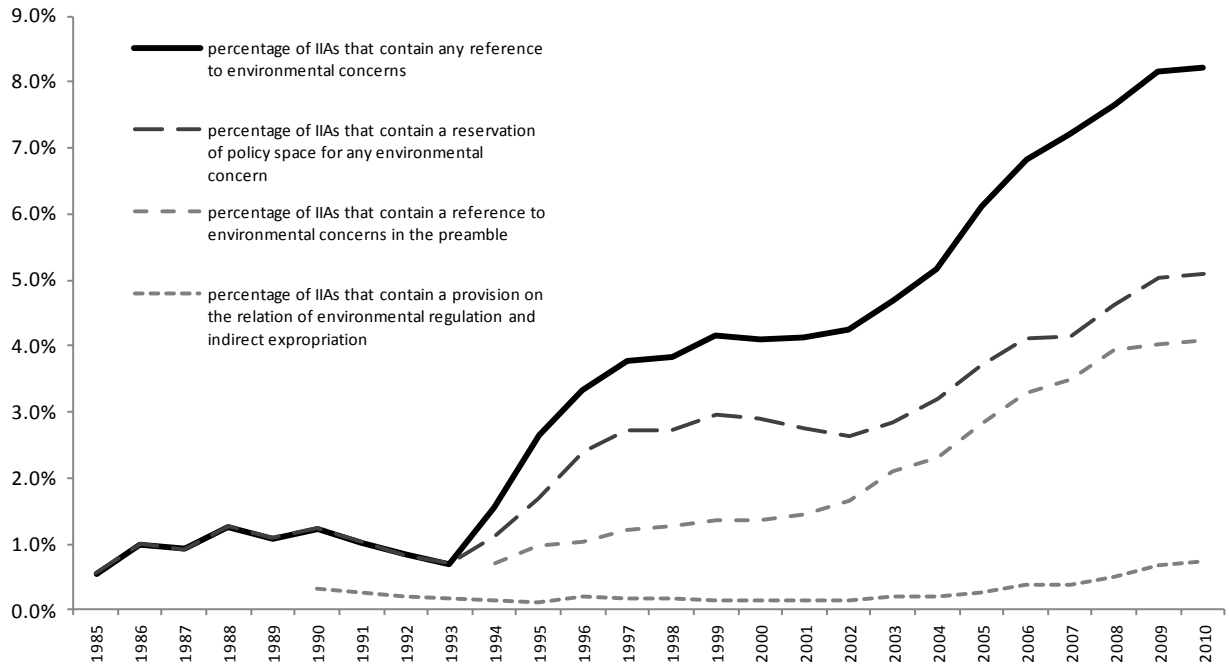
It is worth noting at the outset that the seven categories are not equally represented in the sample, nor is their evolution over time homogenous. Figure 3 shows the evolution of the percentage of treaties that contain references to three of the 7 categories of policy purpose in the stock of treaties in the respective years, as well as the evolution of the frequency of all forms of language combined. The most common category in the sample – with 82 treaties mentioning it – is "reserving environmental policy space". Use of this category of language began in 1985, and is therefore among the oldest categories of language. The second most common category of environmental language – with 66 treaties – is preamble language, which first appears in 1994 BITs and FTAs.[10] Use of language in the preamble has grown since and remains among the most frequently observed categories of references to environmental concerns in IIAs.

[9] This categorisation necessarily implies some degree of interpretation of the clauses. This interpretation is made only to reduce the complexity of the subject matter for the purpose of this study. As the following detailed presentation shows, the lines between these categories are sometimes uncertain.

[10] Mexico-Bolivia FTA (1994), Mexico-Costa Rica FTA (1994), United States-Georgia BIT (1994), United States-Trinidad and Tobago BIT (1994), United States-Uzbekistan BIT (1994).

Provisions clarifying to what extent environmental regulation constitutes "indirect expropriation" emerged as early as 1990,[11] but were hardly ever used until 2004, when they became slightly more frequent.[12] This kind of clause remains rare. These policy purposes and the language used to introduce them in the treaties are discussed in more detail in subsequent sub-sections.

Figure 3. Percentage of IIAs that contain specific categories of language referring to environmental concerns



1. General references to environmental concerns in preambles

In the sample, 66 IIAs and 2 model BITs contain preamble clauses on environmental concerns. The first appearances in the sample of such preamble language is in three 1994 BITs signed by the United States. A number of other countries later included such language in their preambles, including China, Finland, Germany, Japan, Korea, the Netherlands, Sweden, Switzerland, and the US. Preambular references to the environment are among the most often found in the sample, and 16 of the 49 participants in the FOI Roundtable use such references in at least one of their treaties.

China, Finland, Japan, Korea, Netherlands, Sweden and the US use the following phrase in the preambles of some of their BITs:

> [Agreeing[13]/ Recognising[14]/Convinced[15]] that these objectives can be achieved without **relaxing**[16] [essential security interests[17]] health, safety and environmental [measures/norms[18]] of general application;

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11 Canada-Czech Republic BIT (1990).

12 Australia-Chile FTA (2008), Belgium/Luxembourg-Colombia BIT (2009), Canada-Jordan BIT (2009), Canada-Latvia BIT (2009), Canada-Panama FTA (2010), Canada-Peru BIT (2006), Canada-Romania BIT (1996), Chile-United States FTA (2003), Peru-United States FTA (2006), United States-Rwanda BIT (2008), United States-Uruguay BIT (2005) and the Canada-Model BIT (2004).

13 China-Guyana BIT (2003); China-Trinidad and Tobago BIT; Finland-Algeria BIT (2005); Finland-Armenia BIT (2004); Finland-Belarus BIT (2006); Finland-Bosnia and Herzegovina BIT (2000); Finland-Ethiopia BIT (2006);

While some recent US BITs also contain this text, the United States Model BIT[19] contains a variation, which has so far been used twice in treaties.[20] The variation reads:

> **Desiring** to achieve these objectives in a manner **consistent** with the protection of health, safety, and the environment, and the promotion of internationally recognized labor rights.

The Netherlands occasionally uses variations on the following language:

> **Considering** that these objectives can be achieved without [**compromising**[21]**/undermining**[22]] health, [safety[23]/social security[24]] and environmental measures of general application;[25]

Germany has once used a clause that differs from the frequently used model:

> Recognizing also the **increasing need** for measures to protect the environment[26]

The Preamble to the Australia-Chile FTA states the following:

> **Implement** this Agreement in a manner consistent with sustainable development and environmental protection and conservation;

The NAFTA preamble contains the following text:

> Undertake each of the preceding in a manner consistent with environmental protection and conservation; … strengthen the development and enforcement of environmental regulation.

The Energy Charter Treaty also refers to environmental concerns in its preamble, but uses more extensive language, which addresses more environmental concerns explicitly and which lists multilateral environmental agreements:

> Recognizing the necessity for the most **efficient exploration, production, conversion, storage, transport, distribution and use of energy**;
>
> 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 energy-related aspects; and

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Finland-Guatemala BIT (2005); Finland-Kyrgyzstan BIT (2003); Finland-Nicaragua BIT (2003); Finland-Nigeria BIT (2005); Finland-Serbia BIT (2005); Finland-Tanzania BIT (2001); Finland-Uruguay BIT (2005); Finland-Zambia BIT (2005); Netherlands-Burundi BIT (2007); Netherlands-Mozambique BIT (2001); Sweden-Mauritius BIT (2004); United States-Albania BIT (1995); United States-Azerbaijan BIT (1997); United States-Bahrain BIT (1999); United States-Bolivia BIT (1998); United States-Croatia BIT (1996); United States-El Salvador BIT (1999); United States-Georgia BIT (1994); United States-Honduras BIT (1995); United States-Jordan BIT (1997); United States-Mozambique BIT (1998); United States-Nicaragua BIT (1995); United States-Trinidad and Tobago BIT (1994); United States-Uzbekistan BIT (1994); Finland Model BIT (2004).

14 Japan-Korea BIT (2002); Japan-Lao PDR BIT (2008); Japan-Peru BIT (2008); Japan-Uzbekistan BIT (2008); Japan-Vietnam BIT (2003).

15 Korea-Trinidad and Tobago BIT (2002); Switzerland-Mozambique BIT (2002); Switzerland-Syria BIT (2007).

16 Emphasis in this and subsequent extracts is by the authors to emphasise words relevant for the present analysis.

17 Only in Netherlands-Burundi BIT (2007) and Sweden-Mauritius BIT (2004).

18 Only in Switzerland-Syria BIT (2007).

19 US Model BIT 2004.

20 In United States-Uruguay BIT (2005) and US-Rwanda BIT (2008).

21 Netherlands-Namibia BIT (2002), Netherlands-Suriname BIT (2005).

22 Netherlands-Dominican Republic BIT (2006).

23 Netherlands-Namibia BIT (2002), Netherlands-Suriname BIT (2005).

24 Netherlands-Dominican Republic BIT (2006).

25 Netherlands Model BIT (2004).

26 Germany-Trinidad and Tobago BIT (2006). This provision resembles in part a preambular clause of ECT.

> 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.

These clauses position environmental concerns in relation to the treaties' main purpose –investment protection. However, they stop short of defining a hierarchy between the objectives. Also, preambular texts do not establish rights and obligations between the parties but rather to provide guidance as to the "context" of the treaty for the purposes of interpretation.[27] As such, the role of environmental language in the preamble is different from the role of provisions in the body of the treaty.

2. Right to regulate – reserving policy space for environmental regulation

A growing number of IIAs include clauses in the body of the treaty that seek to reserve policy space to regulate environmental matters. In fact, this type of reference to environmental concerns is the oldest form observed in the IIA sample; its first occurrence dates to 1985 (in the China-Singapore BIT). Clauses that reserve policy space are still the most frequent form of environmental texts, with 82 occurrences in the sample. Twenty-five of the 49 countries covered use policy space clauses in at least one of their IIAs and at least two (Canada and the United States) have included them in their model BITs.

The scope of the environmental concern that the clauses describe varies. Many refer to "environmental concerns" in general, while some mention specific concerns such as "sanitary and phyto-sanitary" issues; "exhaustible natural resources"; or refer to an even more detailed set of issues.

Variations of clauses have been observed that make reference to "environmental concerns" or "regulations on environment" without specifying the scope and contents of these concepts. Canada uses in 21 of its treaties a clause on the regulation with respect to environmental matters, and the US Model BIT 2004 as well as NAFTA contain such a clause:

> Nothing in this [Agreement[28]/Treaty[29]/Chapter[30]] shall be construed to prevent a Contracting Party from adopting, maintaining or enforcing any measure otherwise consistent with this Agreement that it considers appropriate to ensure that investment activity in its territory is **undertaken in a manner sensitive to environmental concerns**.

Some other clauses that contain general reservations of policy space have been observed, including the following:

> This Agreement shall not preclude the application of either Contracting Party of measures, necessary for the maintenance of defence, national security and public order, **protection of the environment**, morality and public health.[31]

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27 Article 31 alinea 1 and 2 of the Vienna Convention on the Law of Treaties provide as general rule of interpretation that:
1.A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.
2. The context for the purpose of the interpretation of a treaty shall comprise, in addition to the text, including its preamble and annexes: […].

28 Canada-Armenia BIT (1997); Canada-Barbados BIT (1996); Canada-Costa Rica BIT (1998); Canada-Croatia BIT (1997); Canada-Ecuador BIT (1996); Canada-Egypt BIT (1996); Canada-El Salvador BIT (1999); Canada-Latvia BIT (2009); Canada-Lebanon BIT (1997); Canada-Panama BIT (1996); Canada-Philippines BIT (1995); Canada-Romania BIT (1996); Canada-South Africa BIT (1995); Canada-Thailand BIT (1997); Canada-Trinidad and Tobago BIT (1995); Canada-Ukraine BIT (1994); Canada-Venezuela BIT (1996).

29 United States-Rwanda BIT (2008), United States-Uruguay BIT (2005), US Model BIT 2004, Article 12 II.

30 NAFTA Article 1114(1).

31 Hungary-Russian Federation BIT (1995).

> The provisions of this Agreement shall, from the date of entry into force thereof, apply to all investments made, whether before or after its entry into force, by investors of one Contracting Party in the territory of the other Contracting Party in accordance with the laws and regulations of the latter Contracting Party, **including its laws and regulations on labour and environment**.[32]

Many treaties that reserve environmental policy space elaborate on the scope that the reservation of policy space covers. A variety of definitions can be found, often mentioning the "beneficiaries" of protective norms such as human, animal and plant life or health,[33] or the protection of natural resources. Other treaties define the scope of reserved policy space with reference to the area of regulation, and mention elements such as prevention or control of the release or emission of pollutants or environmental contaminants, the control of hazardous or toxic chemicals and wastes and the protection or conservation of wild flora or fauna, and specially protected natural areas in the party's territory.

Language found in BITs includes the following descriptions of the scope:

> The provisions of this Agreement shall in no way limit the right of either Contracting Party to take any measures (including the destruction of plants and animals, confiscation of property or the imposition of restrictions on stock movement) necessary for the **protection of natural and physical resources** or **human health**, provided such measures are not applied in a manner which would constitute a means of arbitrary or unjustified discrimination.[34]
>
> The provisions of this Agreement shall not in any way limit the right of either Contracting Party to apply prohibitions or restrictions of any kind or take any other action directed to the protection of its essential security interests, or to the **protection of public health or the prevention of disease and pests in animals or plants**.[35]
>
> Nothing in this Agreement precludes the host Contracting Party from taking, in accordance with its laws applied reasonably and on a non-discriminatory basis, measures necessary for the protection of its own essential security interests or for the **prevention of diseases or pests**.[36]
>
> Provided that such measures are not applied in a discriminatory or arbitrary manner or do not constitute a disguised restriction on foreign investment, nothing in this Agreement shall be construed to prevent a Contracting Party from adopting measures to maintain public order, or to protect public health and safety, **including environmental measures necessary to protect human, animal or plant life**.[37]
>
> [Subject to the requirement[38]/Provided[39]] that such measures are not applied in a manner that would constitute arbitrary or unjustifiable discrimination between investments or between investors, or a disguised restriction on international trade or investment, nothing in this Agreement shall be construed to prevent a Contracting Party from adopting or enforcing measures necessary: (a)[40] […]; (b) **to protect human, animal or plant life or health; [or]** (c) **[relating**

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32 Netherlands-Costa Rica BIT (1999).

33 This language resembles that found in Article XX (General Exceptions) of the General Agreement on Tariffs and Trade (GATT), which came into force in January 1948.

34 Argentina-New Zealand BIT (1999).

35 China-New Zealand BIT (1988); China-Singapore BIT (1985); China-Sri Lanka BIT (1986).

36 Australia-India BIT (1999).

37 Canada-Egypt BIT (1996); Canada-El Salvador BIT (1999); Canada-Lebanon BIT (1997); Canada-Panama BIT (1996); Canada-Philippines BIT (1995); Canada-South Africa BIT (1995); Canada-Thailand BIT (1997); Canada-Trinidad and Tobago BIT (1995).

38 Canada-Czech Republic BIT (1990); Canada-Jordan BIT (2009); Canada-Latvia BIT (2009); Canada-Peru BIT (2006); Canada-Romania BIT (1996); Canada-Ukraine BIT (1994); Canada-Venezuela BIT (1996); Japan-Peru BIT (2008); Japan-Uzbekistan BIT (2008).

39 Canada-Armenia BIT (1997); Canada-Barbados BIT (1996); Canada-Costa Rica BIT (1998); Canada-Croatia BIT (1997); Canada-Ecuador BIT (1996); Canada-Egypt BIT (1996); Canada-El Salvador BIT (1999); Canada-Lebanon BIT (1997); Canada-Panama BIT (1996); Canada-Philippines BIT (1995); Canada-South Africa BIT (1995); Canada-Thailand BIT (1997); Canada-Trinidad and Tobago BIT (1995); Finland-Zambia BIT (2005).

40 The order in which the items are listed varies among treaties.

to[41]/for[42]] the conservation of living or non-living exhaustible natural resources[43] [**if such measures are made effective in conjunction with restrictions on domestic production or consumption[44]**]; [(d) imposed for the protection of national treasures of artistic, historic or archaeological value;[45]].

The provisions of this Agreement shall not in any way limit the right of either Contracting Party to apply prohibitions or restrictions of any kind or take any other action in accordance with its laws applied in good faith on a non-discriminatory basis and only to the extent and duration necessary for the protection of its essential security interests, or to the protection of **public health or the prevention of diseases and pests in animals and plants**.[46]

The provisions of this Agreement shall not in any way limit the right of either Contracting Party in cases of extreme emergency to take action in accordance with its laws applied in good faith, on a non-discriminatory basis, and only to the extent and duration necessary for the protection of its essential security interests, or to the protection of **public health or the prevention of disease and pests in animals or plants**.[47]

The provisions of this Agreement shall not in any way limit the right of either Contracting Party to apply, in accordance with its laws, prohibitions or restrictions of any kind or take any other action which is directed to the protection of its essential security interests, or to the **protection of public health or the prevention of diseases and pests in animals and plants**.[48]

Nothing in this Agreement precludes the host Contracting Party from taking, in accordance with its laws applied reasonably and on a non-discriminatory basis, measures necessary for the protection of its own essential security interests or for the **prevention of diseases or pests**.[49]

Notwithstanding any other provisions in this Agreement other than the provisions of Article 11, each Contracting Party may: […] (c) take any measure necessary to protect **human, animal or plant life or health**;[50]

Provided that such measures are not applied in a discriminatory or arbitrary manner or do not constitute a disguised restriction on foreign investment, nothing in this Agreement shall be construed to prevent a Contracting Party from adopting measures to maintain public order, or to protect public health and safety, including **environmental measures necessary to protect human, animal or plant life**.[51]

The provisions of this Agreement shall not in any way limit the right of either Contracting Party to apply prohibitions or restrictions or take action in accordance with its laws normally and reasonably applied in good faith, on a non-discriminatory basis and to the extent necessary, for the **prevention of the spread of diseases and pests in animals or plants**.[52]

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41 Canada-Armenia BIT (1997); Canada-Egypt BIT (1996); Canada-El Salvador BIT (1999); Canada-Lebanon BIT (1997); Canada-Panama BIT (1996); Canada-Philippines BIT (1995); Canada-South Africa BIT (1995).

42 Canada-Barbados BIT (1996); Canada-Costa Rica BIT (1998); Canada-Croatia BIT (1997); Canada-Ecuador BIT (1996).

43 Canada-Ecuador BIT (1996), Canada-Egypt BIT (1996), Canada-El Salvador BIT (1999), Canada-Jordan BIT (2009), Canada-Latvia BIT (2009), Canada-Peru BIT (2009), Canada-Thailand BIT (1997), Canada-Ukraine BIT (1994), Canada-Venezuela BIT (1996). Canada-Armenia BIT (1997) and Canada Model BIT (2004). This language resembles GATS Article XIV and GATT Article XX, but also explicitly includes the specification "living and non-living" exhaustible natural resources.

44 Canada-Armenia BIT (1997); Canada-Egypt BIT (1996); Canada-El Salvador BIT (1999); Canada-Lebanon BIT (1997); Canada-Panama BIT (1996); Canada-Philippines BIT (1995); Canada-Thailand BIT (1997).

45 Canada-Thailand BIT (1997).

46 Czech Republic-Mauritius BIT (1999).

47 Czech Republic-India BIT (1996).

48 Czech Republic-Singapore BIT (1995).

49 Australia-India BIT (1999).

50 Japan-Korea BIT (2002).

51 Finland-Zambia BIT (2005).

52 India-Korea BIT (1996).

> The provisions of this Agreement shall not in any way limit the right of either Contracting Party to apply prohibitions or restrictions of any kind or take any other action which s directed to the protection of its essential security interest, or to the **protection of public health or the prevention of diseases in pests or animals or plants**.[53]
>
> The provisions of this Agreement shall not in any way limit the right of either Contracting Party to take measures directed to the protection of its essential interests, or to the **protection of public health, or to the prevention of diseases and pests in animals and plants**, provided that such measures are not applied in a manner which would constitute a means of arbitrary or unjustified discrimination.[54]
>
> Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination against the other Contracting Party, or a disguised restriction on investments of investors of the other Contracting Party in the Area of a Contracting Party, nothing in this Agreement other than Article 12 shall be construed to prevent a Contracting Party from adopting or enforcing measures: (a) necessary to **protect human, animal or plant life or health**; […][55]
>
> Notwithstanding any other provisions in this Agreement other than the provisions of Article 13, each Contracting Party may: […] (c) take any measure necessary to **protect human, animal or plant life or health**;[56]
>
> Nothing in this Agreement shall be construed to prevent a Contracting Party from taking any action necessary […] for reasons of public health or the **prevention of diseases in animals and plants**.[57]
>
> Each Contracting Party shall, in its State territory, promote as far as possible investments made by investors of the other Contracting Party and admit such investments in accordance with its national laws and regulations. However, this Agreement shall not prevent a Contracting Party from applying restrictions of any kind or taking any other action to protect its essential security interests or public health or to **prevent diseases or pests in animals or plants**.[58]

Switzerland uses the annex of one of its treaties to reserve policy space for "sustainable development", the only occurrence of this concept in a definition of the scope of reserved of policy space in the sample:[59]

> It is understood that, in conformity with the principles set forth in these articles [on investment promotion, protection and non-discrimination], the concepts of **sustainable development** and **environmental protection** are applicable to all investments.[60]

Canada and Japan include in some of their treaties a reference to

> Notwithstanding any other provisions in this Agreement other than the provisions of Article 13, each Contracting Party may: […] take any measure imposed for the protection of national treasures of artistic, historic or archaeological value.[61]

Belgium/Luxembourg uses a different approach to delimit its reservation of policy space for the purpose of environmental regulation. These combine the reservation of policy space with a specific definition of environmental laws. The clause reserving policy space exists in various forms:

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53 India-Mauritius BIT (1998).

54 New Zealand-Hong Kong, China BIT (1995).

55 Japan-Peru BIT (2008); Japan-Uzbekistan BIT (2008).

56 Japan-Lao PDR BIT (2008); Japan-Vietnam BIT (2003).

57 Switzerland-Mauritius BIT (1998).

58 Romania-Mauritius BIT (2000).

59 A number of FTAs included in the sample refer to "sustainable development" in the preambles.

60 Switzerland-El Salvador BIT (1994), translation by the authors. The authentic text, in French language, reads "*Il est entendu qu'en conformité avec les principes énoncés dans ces articles, les concepts de développement durable et de protection de l'environnement sont applicables à tous les investissements.*"

61 Canada-Thailand BIT (1997); Japan-Lao PDR BIT (2008); Japan-Peru BIT (2008); Japan-Uzbekistan BIT (2008).

> The Contracting Parties recognise the right of each one to establish its own levels of domestic environmental protection and environmental development policies and priorities, and to adopt or modify accordingly its environmental legislation. Each Contracting Party shall strive to ensure that its legislation provide for high levels of environmental protection and shall strive to continue to improve this legislation.[62]
>
> The Contracting Parties reaffirm their rights to establish levels of environmental protection and develop its own policies and priorities in this matter. It implies the right to adopt or modify accordingly its own environmental laws, in accordance with their respective domestic legislation.[63]
>
> Recognising the right of each Contracting Party to establish its own levels of [domestic/national[64]] environmental protection and environmental [(development)[65]/development] policies and priorities, and to adopt or modify accordingly its environmental legislation, each Contracting Party shall strive to ensure that its legislation provides for internationally agreed levels of environmental protection and shall strive to continue to improve this legislation.[66]

This clause is combined with a definition of the term "environmental legislation", of which several forms exist:

> [For the purpose of this Agreement:] "environmental legislation" means: any legislation of the Contracting Parties in force at the date of the signature of this Agreement or passed after the date thereof or provision of such legislation, the primary purpose of which is the protection of the environment, or the prevention of a danger to human, animal, or plant life or health, through: a) the prevention, abatement or control of the release, discharge, or emission of pollutants or environmental contaminants; b) the control of environmentally hazardous or toxic chemicals, substances, materials and wastes, and the dissemination of information related thereto; c) the protection or conservation of wild flora or fauna, including endangered species, their habitat, and specially protected natural areas in the Contracting Party's territory.[67]
>
> The term "environmental legislation" shall mean any legislation of the Contracting Parties, or provision thereof, the primary purpose of which is the protection of the environment, or the prevention of a danger to human, animal, or plant life or health, through: a) the prevention, abatement or control of the release, discharge, or emission of pollutants or environmental contaminants; b) the control of environmentally hazardous or toxic chemicals, substances, materials and wastes, and the dissemination of information related thereto; c) the protection or conservation of wild flora or fauna, including endangered species, their habitat, and specially protected natural areas in the Contracting Party's territory.[68]
>
> The terms "environmental legislation" shall mean any legislation of the Contracting States, or provision thereof, the primary purpose of which is the protection of the environment, or the prevention of a danger to human, animal, or plant life or health.[69]

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62 Belgium/Luxembourg-Guatemala BIT (2005).

63 Belgium/Luxembourg-Panama BIT (2009).

64 Only in Belgium/Luxembourg-Serbia BIT (2004).

65 Only in Belgium/Luxembourg-Barbados BIT (2009);

66 Belgium/Luxembourg-Barbados BIT (2009); Belgium/Luxembourg-Colombia BIT (2009); Belgium/Luxembourg-Congo (Democratic Republic) BIT (2005); Belgium/Luxembourg-Ethiopia BIT (2006); Belgium/Luxembourg-Guinea BIT; Belgium/Luxembourg-Libya BIT (2004); Belgium/Luxembourg-Mauritius BIT (2005); Belgium/Luxembourg-Nicaragua BIT (2005); Belgium/Luxembourg-Serbia BIT (2004); Belgium/Luxembourg-Sudan BIT (2005); Belgium/Luxembourg-Tajikistan BIT (2009); Belgium/Luxembourg-United Arab Emirates BIT (2004).

67 Belgium/Luxembourg-Barbados BIT (2009).

68 Belgium/Luxembourg-Colombia BIT (2009); Belgium/Luxembourg-Congo (Democratic Republic) BIT (2005); Belgium/Luxembourg-Ethiopia BIT (2006); Belgium/Luxembourg-Guatemala BIT (2005); Belgium/Luxembourg-Guinea BIT; Belgium/Luxembourg-Libya BIT (2004); Belgium/Luxembourg-Mauritius BIT (2005); Belgium/Luxembourg-Sudan BIT (2005); Belgium/Luxembourg-Tajikistan BIT (2009).

69 Belgium/Luxembourg-Nicaragua BIT (2005); Belgium/Luxembourg-Panama BIT (2009); Belgium/Luxembourg-United Arab Emirates BIT (2004).

3. Reserving policy space with respect to certain treaty provisions

A small set of treaties reserve policy space for specific, limited purposes, thus distinguishing this group from the comprehensive scope that the reservations described in the preceding subsection cover. Nineteen treaties fall in this category – 16 FTAs and only 4 BITs –, and 19 focus on performance requirements while one concerns exceptions to national treatment.

a. Performance requirements

Canada, Mexico and the United States occasionally include in their recent BITs language in the section on performance requirements that reserves policy space for this specific domain. Four occurrences of such clauses have been found in BITs, and 16 out of the 30 non-BIT IIAs contain such clauses. They first occur in 2001.

Canada's provision reads:

> A measure that requires an investment to use a technology to meet generally applicable health, safety or environmental requirements shall not be construed to be inconsistent with paragraph 1(f). For greater certainty, Articles 3 and 4 apply to the measure.[70]

The provisions in US BITs, which are similar to NAFTA Article 1106,[71] read:

> Provided that such measures are not applied in an arbitrary or unjustifiable manner, and provided that such measures do not constitute a disguised restriction on international trade or investment, paragraphs 1(b), (c), and (f), and 2(a) and (b), shall not be construed to prevent a Party from adopting or maintaining measures, including environmental measures: (i) […]; (ii) necessary to protect human, animal, or plant life or health; or (iii) related to the conservation of living or non-living exhaustible natural resources.[72]

b. National treatment exceptions

Sweden uses in one of its BITs a clause on the applicability of exceptions to national treatment. The clause gives retroactive effect of new exceptions to national treatment included for proposes of environmental protection. This retroactive effect is an exception to the BIT's rule that the *status quo ante* applies in relation to national treatment for a specific investment. The Sweden-Russia BIT (1995) is the only treaty in the sample that contains such a clause. Its provision states:

> Each Contracting Party may have in its legislation limited exceptions to national treatment provided for in Paragraph (2) of this Article. Any new exception will not apply to investments made in its territory by investors of the other Contracting Party before the entry into force of such an exception, except when the exception is necessitated for the purpose of the maintenance of defence, national security and public order, **protection of the environment**, morality and public health.[73]

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70 Canada-Peru BIT (2006). Paragraph 1(f) of the treaties prohibits the enforcement of performance requirements "to transfer technology, a production process or other proprietary knowledge to a person in its territory, except when the requirement is imposed or the commitment or undertaking is enforced by a court, administrative tribunal or competition authority, to remedy an alleged violation of competition laws or to act in a manner not inconsistent with other provisions of this Agreement;"

71 NAFTA, article 1106(6): "6. Provided that such measures are not applied in an arbitrary or unjustifiable manner, or do not constitute a disguised restriction on international trade or investment, nothing in paragraph 1(b) or (c) or 3(a) or (b) shall be construed to prevent any Party from adopting or maintaining measures, including environmental measures: (b) necessary to protect human, animal or plant life or health; or (c) necessary for the conservation of living or non-living exhaustible natural resources."

72 United States-Rwanda BIT (2008); United States-Uruguay BIT (2005).

73 Russian Federation-Sweden BIT (1995), Article 3(3).

4. Precluding non-discriminatory regulation as a basis for claims of indirect expropriation

Treaty provisions that preserve policy space to regulate environmental matters do not automatically preclude compensation claims based on changes of environmental regulation or similar measures. States that limit their treaty provisions to a mere reservation of policy space may thus be exposed to compensation claims for "indirect expropriation" that could discourage modifications of environmental regulation or make them onerous.

Ten countries have – beginning with Canada and the United States since 1990 – included in some of their treaties a clause that clarifies the conditions under which environmental regulation cannot be considered indirect expropriation. These clauses state:

> The Parties confirm their shared understanding that: […] Except in rare circumstances, non-discriminatory regulatory actions by a Party that are designed and applied to protect legitimate public welfare objectives, such as public health, safety, and **the environment**, do not constitute indirect expropriations.[74]

These clauses remain relatively rare and only 12 occurrences, plus the Canada and US model BITs, were found in the treaty sample.

5. Environmental matters and investor-state dispute settlement

Some BITs involving parties of NAFTA contain procedural provisions on the consultation of experts on environmental law in arbitral tribunals. Such clauses first appear in NAFTA (1992)[75] and appear from 2004 on in a few BITs concluded by NAFTA parties Canada, Mexico and the United States as well as in several United States FTAs.[76] Canada and the US also use these clauses in their Model BITs. Only four BITs in the sample include such clauses. The clauses read:

> Without prejudice to the appointment of other kinds of experts where authorized by the applicable arbitration rules, a tribunal, at the request of a disputing party or, unless the disputing parties disapprove, on its own initiative, may appoint one or more **experts to report to it in writing on any factual issue concerning environmental, health, safety**, or other scientific matters raised by a disputing party in a proceeding, subject to such terms and conditions as the disputing parties may agree.[77]

One of the treaties concluded by Belgium/Luxembourg excludes the application of the treaty's dispute settlement mechanisms for the provisions regarding environmental concerns. The clause reads:

> The dispute settlement mechanisms under articles […] of this agreement shall not apply to any obligation undertaken in accordance with this article.[78]

Some United States BITs also exclude the environment article from the list of provisions that may give rise to investment arbitration.[79]

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74 United States Model BIT 2004 Annex B; Canada Model BIT (2004) Annex B.13(1); Belgium/Luxembourg-Colombia BIT (2009); Canada-Czech Republic BIT (1990); Canada-Jordan BIT (2009); Canada-Latvia BIT (2009); Canada-Peru BIT (2006); Canada-Romania BIT (1996); United States-Rwanda BIT (2008); United States-Uruguay BIT (2005).

75 NAFTA (1992), Article 1133.

76 The clause has now spread to non-NAFTA parties for related types of international agreements, e.g. the Australia-Chile Free Trade Agreement (2008), art. 10.25.

77 Canada-Jordan BIT (2009); Canada-Peru BIT (2006); Mexico-United Kingdom BIT (2006); United States-Rwanda BIT (2008); United States-Uruguay BIT (2005) US Model BIT (2004), Article 32; Canada Model BIT (2004), Article 42.

78 Belgium/Luxembourg-Colombia BIT (2009), article 7(5). "This article" refers to article 7 of the treaty, which contains the provisions referring to environmental concerns.

6. Not lowering standards – discouraging relaxation of environmental standards to attract investment

Certain countries include in some of their IIAs a clause that discourages "lowering of standards" – that is, providing regulatory incentives to investors to the detriment of environmental protection. These clauses seek to ensure the respect of existing environmental standards and to avoid that States compete for investment by lowering environmental standards. The immediate addressees of these clauses are the States Parties themselves.

Such clauses have appeared in BITs since 1990 and in NAFTA in 1992.[80] In the sample, 49 individual IIAs include such a clause, as do the Canada and US Model BITs.

Language used varies quite widely, including the following:

> The [Contracting; Both Contracting] Parties recognize that it is inappropriate to encourage investment by **relaxing [domestic/national[81]] health, safety or environmental measures**. [Accordingly, a Party/To this effect each Contracting Party] shall strive to ensure that it does 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 or an investor.[82]
>
> 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, such measures as an encouragement for the establishment, acquisition, expansion or retention in its territory of an investment or an investor.[83]
>
> The Parties recognize that it is inappropriate to encourage investment **by weakening or reducing the protections afforded in domestic environmental laws**. Accordingly, each Party shall strive to ensure that it does not waive or otherwise derogate from, or offer to waive or otherwise derogate from, such laws in a manner that weakens or reduces the protections afforded in those laws as an encouragement for the establishment, acquisition, expansion, or retention of an investment in its territory.[84]
>
> [The/Both] Contracting Parties recognise that it is inappropriate to encourage investment by investors of the other Contracting Party by **relaxing environmental measures**. To this effect each Contracting Party should not waive or otherwise derogate from such environmental measures as an encouragement for the establishment, acquisition or expansion in its territory of investments **by investors of the other Contracting Party [and of a non-Contracting Party[85]]**.[86]

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79 See, e.g., the 2004 US model BIT Art. 24 (1), which provides for submission of claims to arbitration for breaches of "Articles 3-10", whereas the provision on Investment and Environment is in Article 13.

80 Article 1114(2) NAFTA reads: "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.."

81 Belgium/Luxembourg-Serbia BIT (2004) only.

82 Belgium/Luxembourg-Barbados BIT (2009); Belgium/Luxembourg-Colombia BIT (2009); Belgium/Luxembourg-Congo (Democratic Republic) BIT (2005); Belgium/Luxembourg-Ethiopia BIT (2006); Belgium/Luxembourg-Guatemala BIT (2005); Belgium/Luxembourg-Guinea BIT; Belgium/Luxembourg-Libya BIT (2004); Belgium/Luxembourg-Mauritius BIT (2005); Belgium/Luxembourg-Nicaragua BIT (2005); Belgium/Luxembourg-Peru BIT (2005); Belgium/Luxembourg-Serbia BIT (2004); Belgium/Luxembourg-Sudan BIT (2005); Belgium/Luxembourg-Tajikistan BIT (2009); Belgium/Luxembourg-Togo BIT (2009); Mexico-Switzerland BIT (1995).

83 Canada-Czech Republic BIT (1990); Canada-Jordan BIT (2009); Canada-Latvia BIT (2009); Canada-Peru BIT (2006); Canada-Romania BIT (1996).

84 United States-Rwanda BIT (2008); United States-Uruguay BIT (2005); US Model BIT (2004).

85 Japan-Peru BIT (2008); Japan-Uzbekistan BIT (2008) only.

86 Japan-Korea BIT (2002), Japan-Lao PDR BIT (2008); Japan-Peru BIT (2008); Japan-Uzbekistan BIT (2008); Japan-Vietnam BIT (2003).

> [Understanding that[87]] No Contracting Party shall [change or[88]] **relax its domestic environmental** [and labour] **legislation** to encourage investment, or investment maintenance or the expansion of the investment that shall be made in its territory.[89]

Nuances in the purpose and effect of such clauses result from different variations of such clauses with respect to the territorial scope of the origin of an investment: Some clauses cover only inward investments originating in the respective treaty partner, while others seem to cover inward investment of any foreign origin, and the wording of again other treaties suggests that they even include domestic investment without any necessary relation to the treaty partner.[90]

Some of the treaties that contain a provision on the inappropriateness of relaxing environmental standards complement it with a procedural provision on the settlement of issues related to alleged relaxations:

> If a party considers that the other 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[91]].[92]

This type of procedural provision is found in at least 7 BITs signed by Canada and the United States and was first included in a BIT in 1990.[93] A similar procedural provision is found in NAFTA.[94]

7. General promotion of progress in environmental protection and cooperation

Some BITs contain clauses that promote the furtherance of environmental objectives without featuring a particularly tight link to the treaties' primary purpose of investment protection or promotion. Such clauses include a general call for the strengthening of environmental standards. A number of clauses fall in this category including the following:

> […], each Contracting Party shall strive to ensure that its legislation provides for high levels of environmental protection and shall strive to continue to improve this legislation.[95]

Some Belgium/Luxembourg BITs contain additional language that makes an explicit reference to international environmental agreements:

> The Contracting Parties reaffirm their commitments under the international environmental agreements [, which they have accepted/in force in their territories[96]].[97] They shall strive to ensure that such commitments are fully recognised and implemented by their domestic legislation.[98]

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87 Belgium/Luxembourg-Korea BIT (2006).

88 Belgium/Luxembourg-Korea BIT (2006); Belgium/Luxembourg-United Arab Emirates BIT (2004) only.

89 Belgium/Luxembourg-Korea BIT (2006); Belgium/Luxembourg-Panama BIT (2009), Art. 5(2), Belgium/Luxembourg-United Arab Emirates BIT (2004).

90 Belgium/Luxembourg-Panama BIT (2009), Art. 5(2).

91 Not in Mexico-Switzerland BIT (1995).

92 Canada-Czech Republic BIT (1990); Canada-Jordan BIT (2009); Canada-Latvia BIT (2009); Canada-Peru BIT (2006); Canada-Romania BIT (1996); Mexico-Switzerland BIT (1995); United States-Rwanda BIT (2008); United States-Uruguay BIT (2005); US Model BIT 2004, article 12 I.

93 Canada-Czech Republic BIT (1990).

94 NAFTA Article 1114 (2).

95 Belgium/Luxembourg-DRC BIT (2005); Belgium/Luxembourg-Colombia BIT (2009), Article 7(1).

96 Belgium/Luxembourg-Peru BIT (2005) only.

97 Belgium/Luxembourg-Barbados BIT (2009); Belgium/Luxembourg-Congo (Democratic Republic) BIT (2005); Belgium/Luxembourg-Ethiopia BIT (2006); Belgium/Luxembourg-Guatemala BIT (2005); Belgium/Luxembourg-Guinea BIT; Belgium/Luxembourg-Libya BIT (2004); Belgium/Luxembourg-Mauritius BIT (2005);

Some treaties concluded by Belgium/Luxembourg contain a clause about general cooperation in environmental matters that is sometimes complemented by a procedural provision.

> The Contracting Parties recognise that co-operation between them provides enhanced opportunities to improve environmental protection standards.[99] [Upon request by either Contacting Party, the other Contracting Party shall accept to hold expert consultations on any matter falling under the purpose of this Article.[100]]

IV. IIA language on specific environmental concerns

The IIAs in the sample cover environmental concerns either under the umbrella term "environment" or explicitly mention specific concerns. This section reviews the more specific environmental concerns that are mentioned in the treaty sample and also seeks to identify environmental concerns that are absent or rare in such treaties. Multilateral investment agreements and international environmental law provide an orientation of what elements may now be considered part of the internationally agreed set of environmental concerns.

1. Environmental concerns explicitly addressed in international investment agreements

The BITs in the sample used for the present study mention a fairly limited set of environmental concerns explicitly. These are formulated as objectives of environmental protection or refer to methods of to achieve these objectives. Explicitly mentioned objectives include

- "human, animal or plant life or health"; "prevention of disease and pests in animals or plants"; or similar;
- "conservation of living or non-living exhaustible natural resources", occasionally phrased as "protection of natural and physical resources"; and
- "protection of national treasures of artistic, historic or archaeological value".

Some IIAs list the following methods to achieve these objectives, which in themselves refer to intermediary objectives:

Belgium/Luxembourg-Nicaragua BIT (2005); Belgium/Luxembourg-Peru BIT (2005); Belgium/Luxembourg-Serbia BIT (2004); Belgium/Luxembourg-Sudan BIT (2005).

98 Belgium/Luxembourg-Barbados BIT (2009); Belgium/Luxembourg-Congo (Democratic Republic) BIT (2005); Belgium/Luxembourg-Ethiopia BIT (2006); Belgium/Luxembourg-Guatemala BIT (2005); Belgium/Luxembourg-Guinea BIT; Belgium/Luxembourg-Libya BIT (2004); Belgium/Luxembourg-Mauritius BIT (2005); Belgium/Luxembourg-Nicaragua BIT (2005); Belgium/Luxembourg-Serbia BIT (2004); Belgium/Luxembourg-Sudan BIT (2005).

99 Belgium/Luxembourg-Colombia BIT (2009); Belgium/Luxembourg-Congo (Democratic Republic) BIT (2005); Belgium/Luxembourg-Ethiopia BIT (2006); Belgium/Luxembourg-Guatemala BIT (2005); Belgium/Luxembourg-Guinea BIT; Belgium/Luxembourg-Libya BIT (2004); Belgium/Luxembourg-Mauritius BIT (2005); Belgium/Luxembourg-Nicaragua BIT (2005); Belgium/Luxembourg-Peru BIT (2005); Belgium/Luxembourg-Tajikistan BIT (2009); Belgium/Luxembourg-United Arab Emirates BIT (2004).

100 Belgium/Luxembourg-Congo (Democratic Republic) BIT (2005); Belgium/Luxembourg-Ethiopia BIT (2006); Belgium/Luxembourg-Guatemala BIT (2005); Belgium/Luxembourg-Guinea BIT; Belgium/Luxembourg-Libya BIT (2004); Belgium/Luxembourg-Mauritius BIT (2005); Belgium/Luxembourg-Nicaragua BIT (2005); Belgium/Luxembourg-Peru BIT (2005); Belgium/Luxembourg-Tajikistan BIT (2009); Belgium/Luxembourg-United Arab Emirates BIT (2004).

- prevention, abatement or control of the release, discharge, or emission of pollutants or environmental contaminants;
- control of environmentally hazardous or toxic chemicals, substances, materials and wastes, and the dissemination of information related thereto; and
- protection or conservation of wild flora or fauna, including endangered species, their habitat, and specially protected natural areas.

The list of environmental objectives explicitly mentioned in IIAs is thus limited to: sanitary and phytosanitary objectives and conservational objectives. These issues cover a broad range of aspects that have occupied mankind for decades, if not centuries, albeit not necessarily under the umbrella term "environment".

2. Common environmental concerns that do not appear in IIAs

Internationally, thinking about environmental issues has evolved rapidly. A database on "binding" international environmental agreements contains, as of 2010, over 2700 treaties, of which 1538 were bilateral treaties, 1039 multilateral treaties and 159 other agreements. Over 2300 of these treaties were adopted after 1950, and the rate of adoption accelerated significantly during the 1990s.[101] Examples of major agreements include the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES),[102] the 1989 Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal,[103] the 1992 Convention on Biological Diversity,[104] and the 1992 UN Framework Convention on Climate Change.[105]

As a result of all this activity, the list of environmental concerns has expanded dramatically in the past decades. Global threats such as climate change, declining biodiversity, depletion of the ozone layer and maritime waters have emerged, with some of them taking centre stage among environmental concerns. Likewise, more recent developments in environmental norms point toward a shift away from a narrow anthropocentric paradigm and from a focus on local risks to a consideration of global risk scenarios.[106]

Some States who include no reference to environmental concerns in their investment agreements may view their BITs and FTAs with investment provisions as leaving enough policy discretion to address any present and future environmental concerns without specific language. However, this survey of treaty language provides some support for the view that investment treaty negotiators are at least partially insulated from the thinking behind the broader evolution of international environmental norms. While growing awareness of environmental threats has arguably driven the increasing use of environmental language in IIAs, the set of issues that are explicitly mentioned in IIAs as well as the underlying paradigms of environmental protection appear to penetrate the investment treaty community slowly, if at all.

None of the bilateral IIAs in the sample have strayed away from traditional approaches to environmental protection, and none, even the very recent ones, touch explicitly upon issues that dominate the debate on environmental protection today. Only the Energy Charter Treaty (ECT) a multilateral

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101 See Ronald B. Mitchell, 2002-2010, *International Environmental Agreements Database Project (Version 2010.2).*

102 Convention on International Trade in Endangered Species of Wild Fauna and Flora, 3 March 1973, 993 U.N.T.S. 243.

103 Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal, 22 March 1989, I.L.M. 657 (1989).

104 Convention on Biological Diversity, 5 June 1992, 31 I.L.M. 818 (1992).

105 United Nations Framework Convention on Climate Change, 29 May 1992, 31 I.L.M. 849 (1992).

106 For a discussion of the ethical foundations of international environmental law, see Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment*, Oxford University Press, Chapter 1(3) and (4) "Why protect the environment?" and "The environment as a problem of international concern."

investment agreement signed in 1994, seems to embrace an updated set of environmental concerns. The treaty's preamble contains explicit references to some of these concerns:

> Recognizing the necessity for the most **efficient exploration, production, conversion, storage, transport, distribution and use of energy**;
>
> 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 energy-related 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, […]

Article 19(3)(b) of the ECT mentions further aspects:

> (b) "Environmental Impact" means any effect caused by a given 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 interactions among these factors; it also includes effects on cultural heritage or socio-economic conditions resulting from alterations to those factors;

Generic language that is often found in the treaty sample, such as references to general "environmental concerns," will arguably absorb certain emerging concepts, but more specific language may be less open to evolution of interpretation. The frequent references to "human, animal and plant life and health", even with the addition of "conservation of living or non-living exhaustible natural resources", may already prove less versatile when it comes to adapting it to regulation favouring biodiversity or attenuating climate change, for example. This being said, analysis on the effect of including any kind of environmental language in IIAs has yet to be done and, therefore, no judgement of the merits of specific kinds of references to environmental concerns in IIAs can be made, based on this study.

V. Further considerations on the use of references to environmental concerns in IIAs

This survey restricts itself to a statistical analysis of the use of environmental language in IIAs – it does not seek to attribute legal significance to the differences in State treaty-writing practice. Nonetheless, the considerable variation in States' approaches to reconciling openness to foreign investment and the public policy concern of environmental regulation invites such reflection.

Of notable interest in this regard are the following questions:

- Does the inclusion of references to environmental concerns in IIAs bring benefits for reconciling openness to foreign investment and protection of environmental concerns?
- If so, does the approach – for example, use of references in the preamble or body of the treaty text – have an impact on the outcome of the reconciliation?
- Do certain approaches favour a dynamic adaption to the rapid evolution of environmental concerns and the thinking about environmental protection observed in this parallel policy community?

Annex 1: Methodology

The sample for this survey consists of 1623 IIAs, in large majority bilateral investment treaties (BITs) plus a limited number of bilateral free trade agreements with investment provisions. The sample covers the 49 countries that participate in the Freedom of investment Roundtables have concluded with any other county.[107] The sample includes bilateral investment treaties that were available in July 2010 on the UNCTAD BIT database; and free trade agreements that were available in July 2010 on other sites.[108] Treaties that are posted on these sites have been included regardless of whether they are in force, or – in a limited number of cases – whether the Parties have signed the documents.[109]

The sample contains 185 treaties signed among OECD members, 1,201 treaties signed between an OECD and a non-OECD Member and 237 treaties signed between two non-OECD Members. Some treaties signed just prior to mid-2010 may not yet be posted in these databases and thus would not be included in this survey. This is a source of potential bias; more recent treaties of countries who take longer to make treaties available to international treaty databases or to post treaties on their own websites will be absent from the sample. Where the date of signature was not available from the documents in the sources themselves, this information has been taken from the website of ICSID.

The qualitative analysis also covers some multilateral investment agreements, including NAFTA and the Energy Charter Treaty, and 19 model investment treaties drawn from publicly available sources.

The analysis sought to identify any kind of reference to environmental concerns, i.e. issues that are commonly associated with the protection of the environment. Treaties that made reference to "public health" in conjunction with "public order" and "public morals" were not included, unless other elements with a connection to environmental issues were also mentioned.

Participants in the FOI Roundtables include Austria, Argentina, Australia, Belgium, Brazil, Canada, Chile, China, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Norway, Peru, Poland, Portugal, Romania, Russian Federation, Saudi Arabia, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States.

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107 The term "country" is used for linguistic ease. Its use does not imply any judgement b the OECD as to the legal or other status of any territorial entity. Belgium and Luxembourg have concluded treaties considered in this document jointly as Belgium-Luxembourg Economic Union; while they constitute a joint treaty partner, this report counts the Belgium-Luxembourg Economic Union as *two* countries.

108 These include dedicated websites of the OAS and the Australian Government, the US Government, and the legal database of Belgium.

109 The signature date of 31 treaties – less than 2% of the sample – could not be determined.

Annex 2: Policy purpose of environmental language in IIAs

The following list includes only treaties that contain at least one reference to environmental concerns. All treaties that a participant in the Freedom of Investment Roundtables has concluded are listed; that leads to duplicate mentioning of a certain number of treaties in the table. Treaties are sorted by alphabetical order of the treaty partner, and, in second order, by the year of signature. Shading of rows groups treaties of the same country to enhance readability.

Treaty (year of signature)	Preamble Language	Explicit language reserving policy space for environmental regulation	Explicit language reserving policy space for environmental regulation in relation to specific provisions of the treaty	Limiting the scope for claims of "indirect expropriation" on the basis of non-discriminatory environmental regulation	Explicit language on not lowering environmental standards for the purpose of attracting investment	Provisions on environmental matters and investor-state dispute settlement	Explicit language on general promotion of progress in environmental protection and cooperation
Argentina-New Zealand BIT (1999)		•					
Australia-India BIT (1999)		•					
Australia-Singapore FTA (2003)	•	•					
Australia-Thailand FTA (2004)		•					
Australia-United States FTA (2004)	•		•				
Australia-Chile FTA (2008)	•	•	•	•			
Belgium/Luxembourg-Guinea BIT (?)		•			•		•
Belgium/Luxembourg-Libya BIT (2004)		•			•		•
Belgium/Luxembourg-Serbia BIT (2004)		•			•		•
Belgium/Luxembourg-United Arab Emirates BIT (2004)		•			•		•
Belgium/Luxembourg-Congo (Democratic Republic) BIT (2005)		•			•		•
Belgium/Luxembourg-Guatemala BIT (2005)		•			•		•
Belgium/Luxembourg-Madagascar BIT (2005)		•					
Belgium/Luxembourg-Mauritius BIT (2005)		•			•		•
Belgium/Luxembourg-Nicaragua BIT (2005)		•			•		•
Belgium/Luxembourg-Peru BIT (2005)		•			•		•
Belgium/Luxembourg-Sudan BIT (2005)		•			•		•
Belgium/Luxembourg-Ethiopia BIT (2006)		•			•		•
Belgium/Luxembourg-Barbados BIT (2009)		•			•		•
Belgium/Luxembourg-Colombia BIT (2009)		•		•	•		•
Belgium/Luxembourg-Panama BIT (2009)		•			•		
Belgium/Luxembourg-Tajikistan BIT (2009)		•			•		•
Belgium/Luxembourg-Togo BIT (2009)		•			•		
Canada-Czech Republic BIT (1990)		•		•	•		
Canada-Ukraine BIT (1994)		•					
Canada-Philippines BIT (1995)		•					
Canada-South Africa BIT (1995)		•					
Canada-Trinidad and Tobago BIT (1995)		•					
Canada-Barbados BIT (1996)		•					

Treaty (year of signature)	Preamble Language	Explicit language reserving policy space for environmental regulation	Explicit language reserving policy space for environmental regulation in relation to specific provisions of the treaty	Limiting the scope for claims of "indirect expropriation" on the basis of non-discriminatory environmental regulation	Explicit language on not lowering environmental standards for the purpose of attracting investment	Provisions on environmental matters and investor-state dispute settlement	Explicit language on general promotion of progress in environmental protection and cooperation
Canada-Chile FTA (1996)	•	•	•		•	•	•
Canada-Ecuador BIT (1996)		•					
Canada-Egypt BIT (1996)		•					
Canada-Panama BIT (1996)		•					
Canada-Romania BIT (1996)		•		•	•		
Canada-Venezuela BIT (1996)		•					
Canada-Armenia BIT (1997)		•					
Canada-Croatia BIT (1997)		•					
Canada-Lebanon BIT (1997)		•					
Canada-Thailand BIT (1997)		•					
Canada-Uruguay BIT (1997)		•			•		
Canada-Costa Rica BIT (1998)		•					
Canada-El Salvador BIT (1999)		•					
Canada-Peru BIT (2006)		•	•	•	•	•	
Canada-Colombia FTA (2008)	•	•	•		•	•	•
Canada-Peru FTA (2008)	•	•	•		•		•
Canada-Jordan BIT (2009)		•		•	•	•	
Canada-Latvia BIT (2009)		•		•	•		
Canada-Panama FTA (2010)	•	•	•	•	•	•	•
Chile-Canada FTA (1996)	•	•	•		•	•	•
Chile-United States FTA (2003)	•	•	•	•		•	
Chile-Colombia FTA (2006)	•	•	•		•	•	•
Chile-Peru FTA (2006)	•	•	•			•	•
Chile-Japan EPA (2007)	•				•	•	
Chile-Australia FTA (2008)	•	•	•	•			
China-Trinidad and Tobago BIT (?)	•						
China-Singapore BIT (1985)		•					
China-Sri Lanka BIT (1986)		•					
China-New Zealand BIT (1988)		•					
China-Guyana BIT (2003)	•						
China-Peru FTA (2009)	•						
Czech Republic-Canada BIT (1990)		•		•	•		
Czech Republic-Singapore BIT (1995)		•					
Czech Republic-India BIT (1996)		•					
Czech Republic-Mauritius BIT (1999)		•					
Egypt-Canada BIT (1996)		•					
Finland-Bosnia and Herzegovina BIT (2000)	•						
Finland-Tanzania BIT (2001)	•						
Finland-Kyrgyzstan BIT (2003)	•						
Finland-Nicaragua BIT (2003)	•						
Finland-Armenia BIT (2004)	•						

Treaty (year of signature)	Preamble Language	Explicit language reserving policy space for environmental regulation	Explicit language reserving policy space for environmental regulation in relation to specific provisions of the treaty	Limiting the scope for claims of "indirect expropriation" on the basis of non-discriminatory environmental regulation	Explicit language on not lowering environmental standards for the purpose of attracting investment	Provisions on environmental matters and investor-state dispute settlement	Explicit language on general promotion of progress in environmental protection and cooperation
Finland-Algeria BIT (2005)	•						
Finland-Guatemala BIT (2005)	•						
Finland-Nigeria BIT (2005)	•						
Finland-Serbia BIT (2005)	•						
Finland-Uruguay BIT (2005)	•						
Finland-Zambia BIT (2005)	•	•					
Finland-Belarus BIT (2006)	•						
Finland-Ethiopia BIT (2006)	•						
Germany-Trinidad and Tobago BIT (2006)	•						
Hungary-Russian Federation BIT (1995)		•					
India-Czech Republic BIT (1996)		•					
India-Korea BIT (1996)		•					
India-Mauritius BIT (1998)		•					
India-Australia BIT (1999)		•					
Indonesia-Japan EPA (2007)					•		
Japan-Korea BIT (2002)	•				•		
Japan-Vietnam BIT (2003)	•	•			•		
Japan-Mexico EPA (2004)		•	•		•	•	
Japan-Malaysia EPA (2005)					•		
Japan-Philippines EPA (2006)		•			•		
Japan-Brunei EPA (2007)	•				•		
Japan-Chile EPA (2007)	•				•	•	
Japan-Indonesia EPA (2007)					•		
Japan-Singapore EPA (2007)		•					
Japan-Thailand EPA (2007)					•		
Japan-Lao PDR BIT (2008)	•	•			•		
Japan-Peru BIT (2008)	•	•			•		
Japan-Uzbekistan BIT (2008)	•	•			•		
Japan-Switzerland EPA (2009)	•				•		
Korea-India BIT (1996)		•					
Korea-Japan BIT (2002)	•				•		
Korea-Trinidad and Tobago BIT (2002)	•						
Latvia-Canada BIT (2009)		•		•	•		
Malaysia-Japan EPA (2005)					•		
Mexico-Bolivia FTA (1994)	•	•			•		
Mexico-Costa Rica FTA (1994)	•	•			•		
Mexico-Switzerland BIT (1995)					•		
Mexico-Nicaragua FTA (1997)	•	•			•		
Mexico-Cuba BIT (2001)		•					
Mexico-Uruguay FTA (2003)			•				
Mexico-Japan EPA (2004)		•	•		•	•	

Treaty (year of signature)	Preamble Language	Explicit language reserving policy space for environmental regulation	Explicit language reserving policy space for environmental regulation in relation to specific provisions of the treaty	Limiting the scope for claims of "indirect expropriation" on the basis of non-discriminatory environmental regulation	Explicit language on not lowering environmental standards for the purpose of attracting investment	Provisions on environmental matters and investor-state dispute settlement	Explicit language on general promotion of progress in environmental protection and cooperation
Mexico-United Kingdom BIT (2006)						•	
Morocco-United States FTA (2004)	•	•				•	
Netherlands-Costa Rica BIT (1999)		•					
Netherlands-Mozambique BIT (2001)	•						
Netherlands-Namibia BIT (2002)	•						
Netherlands-Suriname BIT (2005)	•						
Netherlands-Dominican Republic BIT (2006)	•						
Netherlands-Burundi BIT (2007)	•						
New Zealand-China BIT (1988)		•					
New Zealand-Hong Kong, China BIT (1995)		•					
New Zealand-Argentina BIT (1999)		•					
Peru-Belgium/Luxembourg BIT (2005)		•			•		•
Peru-Canada BIT (2006)		•	•	•	•	•	
Peru-Chile FTA (2006)	•	•	•			•	•
Peru-United States FTA (2006)	•	•	•	•	•		
Peru-Canada FTA (2008)	•	•	•		•		•
Peru-Japan BIT (2008)	•	•			•		
Peru-Singapore FTA (2008)		•	•				
Peru-China FTA (2009)	•						
Romania-Canada BIT (1996)		•		•	•		
Romania-Mauritius BIT (2000)		•					
Russian Federation-Hungary BIT (1995)		•					
Russian Federation-Sweden BIT (1995)			•				
South Africa-Canada BIT (1995)		•					
Sweden-Russian Federation BIT (1995)			•				
Sweden-Mauritius BIT (2004)	•						
Switzerland-El Salvador BIT (1994)		•					
Switzerland-Mexico BIT (1995)					•		
Switzerland-Mauritius BIT (1998)		•					
Switzerland-Mozambique BIT (2002)	•						
Switzerland-Syria BIT (2007)	•						
Switzerland-Japan EPA (2009)	•				•		
United Kingdom-Mexico BIT (2006)						•	
United States-Georgia BIT (1994)	•						
United States-Trinidad and Tobago BIT (1994)	•						
United States-Uzbekistan BIT (1994)	•						
United States-Albania BIT (1995)	•						
United States-Honduras BIT (1995)	•						
United States-Nicaragua BIT (1995)	•						
United States-Croatia BIT (1996)	•						
United States-Azerbaijan BIT (1997)	•						

Treaty (year of signature)	Preamble Language	Explicit language reserving policy space for environmental regulation	Explicit language reserving policy space for environmental regulation in relation to specific provisions of the treaty	Limiting the scope for claims of "indirect expropriation" on the basis of non-discriminatory environmental regulation	Explicit language on not lowering environmental standards for the purpose of attracting investment	Provisions on environmental matters and investor-state dispute settlement	Explicit language on general promotion of progress in environmental protection and cooperation
United States-Jordan BIT (1997)	•						
United States-Bolivia BIT (1998)	•						
United States-Mozambique BIT (1998)	•						
United States-Bahrain BIT (1999)	•						
United States-El Salvador BIT (1999)	•						
United States-Chile FTA (2003)	•	•	•	•		•	
United States-Singapore FTA (2003)	•	•	•		•	•	
United States-Australia FTA (2004)	•		•				
United States-Morocco FTA (2004)	•	•				•	
United States-Uruguay BIT (2005)	•	•	•	•	•	•	
United States-Oman FTA (2006)	•	•	•		•	•	
United States-Peru TPA (2006)	•	•	•	•	•		
United States-Rwanda BIT (2008)	•	•	•	•	•	•	

The following table contains the same information as the previous, but for non-BIT IIAs, i.e. FTAs and EPAs. Shading of rows groups treaties of the same country to enhance readability.

Treaty (year of signature)	Preamble Language	Explicit language reserving policy space for environmental regulation	Explicit language reserving policy space for environmental regulation in relation to specific provisions of the treaty	Limiting the scope for claims of "indirect expropriation" on the basis of non-discriminatory environmental regulation	Explicit language on not lowering environmental standards for the purpose of attracting investment	Provisions on environmental matters and investor-state dispute settlement	Explicit language on general promotion of progress in environmental protection and cooperation
Australia-Singapore FTA (2003)	•	•					
Australia-Thailand FTA (2004)		•					
Australia-United States FTA (2004)	•		•				
Australia-Chile FTA (2008)	•	•	•	•			
Canada-Chile FTA (1996)	•	•	•		•	•	•
Canada-Colombia FTA (2008)	•	•	•		•	•	•
Canada-Peru FTA (2008)	•	•	•		•		•
Canada-Panama FTA (2010)	•	•	•	•	•	•	•
Chile-Canada FTA (1996)	•	•	•		•	•	•
Chile-United States FTA (2003)	•	•	•	•		•	
Chile-Colombia FTA (2006)	•	•	•		•	•	•
Chile-Peru FTA (2006)	•	•	•			•	•

Treaty (year of signature)	Preamble Language	Explicit language reserving policy space for environmental regulation	Explicit language reserving policy space for environmental regulation in relation to specific provisions of the treaty	Limiting the scope for claims of "indirect expropriation" on the basis of non-discriminatory environmental regulation	Explicit language on not lowering environmental standards for the purpose of attracting investment	Provisions on environmental matters and investor-state dispute settlement	Explicit language on general promotion of progress in environmental protection and cooperation
Chile-Japan EPA (2007)	•				•	•	
Chile-Australia FTA (2008)	•	•	•	•			
China-Peru FTA (2009)	•						
Indonesia-Japan EPA (2007)					•		
Japan-Mexico EPA (2004)		•	•		•	•	
Japan-Malaysia EPA (2005)					•		
Japan-Philippines EPA (2006)		•			•		
Japan-Brunei EPA (2007)	•				•		
Japan-Chile EPA (2007)	•				•	•	
Japan-Indonesia EPA (2007)					•		
Japan-Singapore EPA (2007)		•					
Japan-Thailand EPA (2007)					•		
Japan-Switzerland EPA (2009)	•				•		
Malaysia-Japan EPA (2005)					•		
Mexico-Bolivia FTA (1994)	•	•			•		
Mexico-Costa Rica FTA (1994)	•	•			•		
Mexico-Nicaragua FTA (1997)	•	•			•		
Mexico-Uruguay FTA (2003)			•				
Mexico-Japan EPA (2004)		•	•		•	•	
Morocco-United States FTA (2004)	•	•				•	
Peru-Chile FTA (2006)	•	•	•			•	•
Peru-United States FTA (2006)	•	•	•	•	•		
Peru-Canada FTA (2008)	•	•	•		•		•
Peru-Singapore FTA (2008)		•	•				
Peru-China FTA (2009)	•						
Switzerland-Japan EPA (2009)	•				•		
United States-Chile FTA (2003)	•	•	•	•		•	
United States-Singapore FTA (2003)	•	•	•		•	•	
United States-Australia FTA (2004)	•		•				
United States-Morocco FTA (2004)	•	•				•	
United States-Oman FTA (2006)	•	•	•		•	•	
United States-Peru TPA (2006)	•	•	•	•	•		