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Environmental protection and international economic law

12.1 Introduction

In Chapter 10, we analysed the relationship between human rights and environmental protection, as an expression of the interactions between the social and environmental pillars of sustainable development. This chapter follows a similar approach with respect to the connection between environmental protection and economic development. The latter finds expression in an increasingly important body of norms regulating investment, trade and technology at the international level.

Unlike the link between human rights and the environment, which has been approached mostly from a synergistic perspective, the connection between environmental protection and international economic law has been largely understood as conflicting. Environmental protection measures have been considered as covert protectionism or, alternatively, as a luxury of industrialised countries that no longer have serious development concerns. Conversely, the international protection of foreign investment, trade transactions and intellectual property rights ('IPRs') has come under criticism as a result of the constraints it places on States' regulatory powers, including for environmental protection.

In reality, environmental protection and international economic law may entertain both synergistic and conflicting relations, depending on the specific issue at stake and the context where it arises. This chapter discusses these two dimensions focusing *tour-à-tour* on investment, trade and intellectual property regulation. This presentation order is suggested by the production cycle, which begins with investment to develop certain products (12.2), then involves (in addition to domestic sales) the export of the products to foreign markets (12.3) and, for technology-intensive goods, it seeks to ensure a certain level of protection of IPRs abroad, through the regulation of trade-related aspects of IPRs (12.4). A different presentation order could, of course, be followed, taking into account the fact that a significant proportion of production processes use goods imported from abroad, including from other companies within the same

multinational group (intra-firm trade)¹ or that, as driver of innovation, IPRs intervene at the earlier stage of research and development, which entails investment.² These are important issues, and they will be integrated in the presentation order of investment, trade and IPRs regulation followed in this chapter.

12.2 Foreign investment and the environment in international law

12.2.1 Overview

Foreign investment is much needed for the ‘development’ (economic and social) component of ‘sustainable development’ but it entertains an ambiguous relationship with the other component of this concept, i.e. ‘environmental protection’. On the one hand, foreign investment can harness the resources (financial and technological) to promote environmental protection through a variety of channels (e.g. energy efficiency, reduction of greenhouse gas (GHG) emissions, waste treatment and other ‘clean’ technologies). On the other hand, foreign investment may adversely affect the environment of the host State (e.g. destruction of biodiversity, pollution of water resources, improper disposal of hazardous waste, commercialisation of dangerous chemicals banned/restricted in developed countries).

This ambiguity also arises in the relationship between the bodies of international law primarily regulating foreign investment schemes and environmental protection.³ International investment law may contribute to environmental goals through the protection afforded to foreign investment schemes under international investment agreements (‘IIAs’). Aside from the contractual relationships that a foreign investor may entertain with a host State, two main types of treaties have been developed to promote and protect foreign investment, namely ‘bilateral investment treaties’ (‘BITs’) and investment chapters in bilateral or multilateral free trade agreements (‘FTAs’). In both cases, the basic components are fundamentally similar: (i) provisions defining protected investments and investors; (ii) provisions defining the type

¹ For a concise overview see R. Lanz and S. Miroudot, ‘Intra-Firm Trade: Patterns, Determinants and Policy Implications’ (2011) *OECD Trade Policy Papers*, No. 114, OECD Publishing, available at: [last dx.doi.org/10.1787/5kg9p39lrwnn-en](http://dx.doi.org/10.1787/5kg9p39lrwnn-en) (visited on 20 April 2014).

² For an early statement of the link IPRs-innovation, see E. Penrose, *The Economics of the International Patent System* (Baltimore MD: Johns Hopkins Press, 1951). For a contemporary statement, see World Intellectual Property Organisation, *The Changing Face of Innovation* (Geneva: WIPO, 2011). Some recent research suggests, however, that this link may not be as robust as initially thought. See C. Correa, ‘Innovation and Technology Transfer of Environmentally Sound Technologies: The Need to Engage in a Substantive Debate’ (2013) 22 *Review of European, Comparative and International Environmental Law* 54, 55–7.

³ This section is based on J. E. Viñuales, *Foreign Investment and the Environment in International Law* (Cambridge University Press, 2012); P.-M. Dupuy and J. E. Viñuales (eds.), *Harnessing Foreign Investment to Promote Environmental Protection: Incentives and Safeguards* (Cambridge University Press, 2013).

of treatment that must be granted to the latter (e.g. provisions on takings, fair and equitable treatment and non-discrimination); (iii) an arbitration clause entitling covered investors to bring a claim against the host State before *ad hoc* arbitration tribunals.⁴ Although environmental protection is not an explicit target of such instruments, reducing the risk of investing abroad may be useful to foster sustainable development through the transfer of capital and technology that investment often entails. Yet, the obligations of the host State under IIAs may sometimes conflict – at least to some extent – with its international environmental obligations. Investment protection may, more generally, collide with purely domestic environmental measures, as evidenced by an increasing number of investment disputes.⁵

In the following sections, we analyse the synergistic and conflicting aspects of environmental and investment protection. Synergies (12.2.2) are mapped by reference to some international policy instruments capable of channelling foreign investment towards pro-environment projects and, more generally, by reference to ongoing policy processes aimed at a broader harmonisation of these two areas of regulation. As for conflicts (12.2.3), we pay particular attention to the practice of investment arbitration tribunals and the current trend in investment treaty-making.

12.2.2 Synergies

12.2.2.1 Instruments

In Chapter 9, we discussed a number of policy instruments, including funds and the so-called market mechanisms, which are used to facilitate compliance with international environmental law. This section looks at some of these instruments from a particular angle, namely the role that the private sector as a proxy for foreign investors, can play within them. The discussion is limited to three examples, which are illustrative of different types of instruments: environmental funds, public-private partnerships ('PPPs'), and market mechanisms.

Regarding the first instrument, the most important example so far is the Global Environmental Facility ('GEF'), discussed in Chapter 9. The GEF recognised the importance of engaging the private sector in its activities since its inception. In an information document prepared by the Secretariat in October 1995 and entitled 'Engaging the Private Sector' it was noted that 'the challenge for the GEF [was] to find effective modalities to influence ("leverage") ... private ... investment flows in ways that are beneficial to

⁴ For a concise introduction to international investment law, see R. Dolzer and C. Schreuer, *Principles of International Investment Law* (Oxford University Press, 2013). For an analysis of the most salient contemporary issues in this field, see Z. Douglas, J. Pauwelyn and J. E. Viñuales (eds.), *The Foundations of International Investment Law* (Oxford University Press, 2014).

⁵ See *infra* Section 12.2.3.2.

the global environment'.⁶ Over the years, the GEF developed a 'Strategy to Engage with the Private Sector' embodied in a number of documents, including a set of 'Principles for Engaging the Private Sector'⁷ and additional action to 'enhance' the initial strategy.⁸ The approach described by these documents and followed by the GEF involved different types of engagement, including 'indirect' (i.e. creating market conditions in countries receiving GEF funds conducive to pro-environment firms) or 'direct' engagement by the GEF (i.e. providing funds to a private company to cover the incremental costs of a project), the 'co-financing' of GEF-leveraged projects by the private sector (i.e. the role of the GEF is to lower the risks of private sector participation) or, still, the facilitation of private sector participation in the public procurement process of GEF-financed governmental projects. After the adoption of the GEF's Resource Allocation Framework in 2006, 'direct' engagement has become more difficult, because the needs of the private sector have not always been sufficiently taken into account in country allocations.⁹ Currently, the GEF envisages private sector involvement mostly through the first (indirect) and the third (co-financing) types of engagement. In particular, implementing agencies are being encouraged to identify certain PPPs that could receive funding and attract co-financing by other lenders.¹⁰

The second instrument, PPPs, has received increasing attention as a tool for environmental protection since the 2002 World Summit on Sustainable Development, in Johannesburg.¹¹ PPPs can be used as project finance vehicles, as is currently the case of the GEF.¹² So far, tapping into the financial resources of the private sector has been perhaps the most important use of PPPs. Yet, PPPs can also provide a vehicle for projects jointly undertaken in the field. The so-called 'Type II outcomes' of the WSSD covered indeed 'commitments to specific targets and objectives for the implementation of sustainable

⁶ GEF, 'Engaging the Private Sector', 5 October 1995, GEF/C.6/Inf.4, para. 7 ('Engaging the Private Sector').

⁷ GEF, 'Principles for Engaging the Private Sector', 16 April 2004, GEF/C.23/11 ('GEF Principles').

⁸ GEF, 'Revised Strategy for Enhancing Engagement with the Private Sector', 7 October 2011, GEF/C.41/09 ('GEF Revised Strategy'), Annex 1.

⁹ *Ibid.*, para. 35. ¹⁰ *Ibid.*, para. 32.

¹¹ Report of the World Summit on Sustainable Development, A/CONF.199/20, Part I, item 2: Plan of Implementation of the World Summit on Sustainable Development ('Plan of Implementation'), paras. 7(j), 9(g), 20(t), 25(g), 43(a) or 49. Calls for more private sector involvement in environmental protection can be traced back to at least the 1992 Agenda 21: Report of the United Nations Conference on Environment and Development, A/CONF.151/26/Rev.1 (Vol. I), Resolution 1, Annex 2: Agenda 21, 13 June 1992 ('Agenda 21'), Chapter 30. See also Report of the Secretary-General: Renewing the United Nations: A Programme for Reform, 14 July 1997, UN Doc. A/51/1950, paras. 59–60; Report of the Secretary General: Enhanced Cooperation between the UN and All Relevant Partners, in particular the Private Sector, 10 August 2005, UN Doc. A/60/214; United Nations Millennium Declaration, UNGA Res 55/2, 8 September 2000, para. 20.

¹² GEF Revised Strategy, *supra* n. 8, paras. 28–34, 39.

development made by a coalition of actors',¹³ including the private sector. Over the years, more than 300 partnerships were registered with the now discontinued UN Commission on Sustainable Development, mainly in the areas of water, energy and education¹⁴ and with global (180), regional (69) or subregional (79) geographic scopes.¹⁵ In addition to these PPPs, a number of initiatives have been jointly undertaken by the bodies of some environmental treaties and some private companies.¹⁶ Examples include the 'Danone-Evian Fund for Water Resources' established in 2002 following an agreement between the Secretariat of the Ramsar Convention¹⁷ and the Danone Group,¹⁸ the collaboration between the Convention on Migratory Species ('CMS')¹⁹ and the German air carrier Lufthansa to show a documentary on the activities of the CMS in certain Lufthansa flights²⁰ or, still, the 'Mobile Phone Partnership Initiative'²¹ jointly undertaken by the Basel Convention and a number of private companies for the 'environmentally sound management of used and end-of-life mobile phones' not covered by the Convention's definition of waste.²²

The third instrument, market mechanisms, has already been discussed in connection with the Kyoto Protocol (see Chapter 5). Yet, it seems useful to characterise here the type of 'synergy' between foreign investment and environmental protection that they are intended to provide. Unlike environmental funds, market mechanisms do not disburse funds or provide guarantees to either States or private companies. Their purpose is to create an incentive for States or private companies to conduct certain types of pro-environment transactions. They do so by creating an environmental market. From the perspective of a foreign investor, the type of incentive could be characterised as a variant of 'indirect engagement' in the meaning ascribed to this term by

¹³ C. Streck, 'The World Summit on Sustainable Development: Partnerships as New Tools in Environmental Governance' (2002) 13 *Yearbook of International Environmental Law* 63, 67.

¹⁴ See webapps01.un.org/dsd/partnerships/public/partnerships/stats/primary_theme.jpg (last visited on 20 April 2014).

¹⁵ See webapps01.un.org/dsd/partnerships/public/partnerships/stats/geographic_scope.jpg (last visited on 20 April 2014).

¹⁶ E. Morgera, *Corporate Accountability in International Environmental Law* (Oxford University Press, 2009), pp. 251–4.

¹⁷ Convention on Wetlands of International Importance especially as Waterfowl Habitat, 2 February 1971, 996 UNTS 245 ('Ramsar Convention').

¹⁸ Action Programme for Water Resource and Water Quality Protection in Wetlands of International Importance, Memorandum of Understanding, 27 January 1998. The initial instrument has been subsequently completed and amended by a number of other instruments. See www.ramsar.org (last visited on 20 April 2014).

¹⁹ Convention on the Conservation of Migratory Species of Wild Animals, 23 June 1979, 1651 UNTS 356 ('CMS Convention').

²⁰ Morgera, above n. 16, p. 253.

²¹ 'Sustainable Partnership for the Environmentally Sound Management of End-of-life Mobile Telephones', Decision VI/31, 10 February 2003, UNEP/CHW.6/40.

²² On this basis, the Basel Convention Secretariat has developed a 'Guidance Document on the Environmentally Sound Management of Used and End-of-life Mobile Phones', 14 July 2011, UNEP/CHW.10/INF/27.

the GEF. In the case of the flexible mechanisms of the Kyoto Protocol, the market is created by the existence of a cap on the emissions of certain greenhouse gases (Annex A) by certain countries (Annex B). The right to emit a ton of carbon dioxide equivalent thus acquires value for States subject to the cap, because these 'emission rights' can be used to comply with an international obligation. This, in turn, is implemented by domestic or regional legislation (e.g. the European ETS Directive²³) extending the market of emission rights to the private sector. For a private company an emission right is valuable not only because it can be used to comply with a legal obligation but also for other purposes, such as branding, hedging or simply avoiding investment in a restructuring of its production methods. Similarly, certain 'ecosystem services' (e.g. carbon capture and storage by trees, water purification and replenishment or flood control by wetlands, biodiversity conservation by tropical forests) can be structured in a way that allows them to be marketed. Depending on the structure given to such services, the market will have different features. Some countries, such as Brazil and Ecuador, have set up funds where public and private investors can invest in preserving the tropical forests.²⁴

12.2.2.2 Policy processes

In addition to the specific instruments discussed above, broader synergies are being explored by a number of international organisations, including the Organisation for Economic Co-operation and Development ('OECD') and the UN Commission on Trade and Development ('UNCTAD').

The OECD has conducted research on the economic dimensions of the connection between foreign investment and environmental protection since the 1990s.²⁵ More recently, it has turned its attention to the legal aspects of this link, with a particular interest in IIAs and investment arbitration. In addition to several useful studies published in this context, in 2011, the delegates of States parties to the organisation adopted a 'OECD Statement on Harnessing Freedom of Investment for Green Growth', identifying seven 'findings' and highlighting the importance of:

- (i) mutual supportiveness of international environmental and investment law;
- (ii) monitoring investment treaty practices regarding the environment;
- (iii) ensuring the integrity and competence, and improving the transparency of investor-state dispute settlement; (iv) strengthening compliance with international investment law through prior review of proposed environmental measures and through effective environmental law and regulatory practices;

²³ Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/E, OJ 2003 L 0087, 25 June 2009 (consolidated version) ('ETS Directive').

²⁴ See www.amazonfund.org and www.sosyasuni.org (last visited on 20 April 2014).

²⁵ For a useful survey, see OECD, *FDI and the environment – An Overview of the Literature* (Paris: OECD, 1997).

(v) vigilance against green protectionism; (vi) encouraging business' contribution to greening the economy; and (vii) spurring green growth through FDI.²⁶

These findings are the result of substantial preparatory work, consultations and discussion among delegates during a round-table held in April 2011. They have no particular legal status, as they are not generalisations of the legal practice of States. They constitute a common policy statement approved by the delegates of OECD Member States²⁷ and providing an indication of how they see the interactions of these bodies of law in the future.

Similar efforts have also been conducted under the aegis of the UNCTAD, a forum that, due to its mandate, better reflects the interest of developing countries. In its 2012 World Investment Report, the UNCTAD introduced an 'Investment Policy Framework for Sustainable Development' ('IPFSD') calling for a new generation of investment policies, including investment treaties.²⁸ The IPFSD is more ambitious than the OECD Statement and includes (i) a set of 'Core Principles for Investment Policymaking', (ii) a set of 'National Investment Policy Guidelines', and (iii) a selection of 'Policy options' for investment treaty making. Regarding (i), the principles are presented as an integral part of the IPFSD and not as a separate instrument. There are eleven core principles, which can be classified under four categories: overall objectives of investment policymaking (Principle 1); general policymaking process (Principles 2, 3 and 4); specific investment policymaking process (Principles 5–10); international co-operation (Principle 11).²⁹ A noteworthy aspect of these principles is the focus on the 'promotion' of investment for 'inclusive growth and sustainable development', a feature that may have specific implications for the interpretation of investment protection standards and arbitration clauses.³⁰ Synergies are explicitly contemplated in Principle 2, which states that '[a]ll policies that impact on investment should be coherent and synergetic at both the national and international level'.³¹ Also, the principles focus on

²⁶ OECD, *Harnessing Freedom of Investment for Green Growth*, Freedom of Investment Roundtable, 14 April 2011, available at: www.oecd.org (last visited on 20 April 2014).

²⁷ Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, Morocco, the Netherlands, New Zealand, Norway, Peru, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Romania, Turkey, United Kingdom and the United States.

²⁸ UNCTAD, *World Investment Report. Towards a New Generation of Investment Policies* (2012), Chapter IV (Investment Policy Framework for Sustainable Development). See also the report specifically on the IPFSD available at: unctad.org/en/PublicationsLibrary/diaepcb2012d5_en.pdf ('IPFSD Report').

²⁹ *Ibid.*, pp. 10–14.

³⁰ The contribution of foreign investment to the development of the host country has been widely discussed in connection with the jurisdictional requirements for arbitration tribunals acting under the aegis of the International Centre for Settlement of Investment Disputes ('ICSID'). For an overview of the debate, see J. D. Mortenson, 'Meaning of "Investment": ICSID Travaux and the Domain of International Investment Law' (2010) 51 *Harvard International Law Journal* 257.

³¹ IPFSD Report, *supra* n. 28, p. 11.

post-establishment treatment, unlike the OECD's statement, which also seeks to liberalise investment by granting or facilitating access to foreign markets. Moving to the 'Guidelines' and 'Policy options' included in the IPFSD, they are of course consistent and aligned with the Core Principles. Of note, however, is the call for 'negotiating sustainable development-friendly IIAs [international investment agreements]'³² and the detailed discussion of common investment treaty terms and of how they could be adjusted to give appropriate room to sustainable development considerations.

Underpinning the latter point is the recognition that environmental regulatory change can indeed lead to conflicts, broadly understood, with existing IIAs, at least with the current interpretation of their broad language by investment tribunals.

12.2.3 Conflicts

12.2.3.1 Normative conflicts v. legitimacy conflicts

In the last decade, the number of investment disputes with environmental components has increased steeply. Whereas before 1990 only two such claims had been brought, the number increased between 1990 and 2000 (nine claims brought) and particularly between 2001 and 2013 (more than forty claims brought, many still pending). And these numbers are only a conservative estimation, as they do not take into account undisclosed disputes (believed to be numerous) or claims brought before other jurisdictions (e.g. domestic courts or human rights courts). The issues arising in these disputes include takings of investors' property for environmental reasons (e.g. protection of a natural or cultural site), delay/suspension/retreat of a permit to operate (e.g. waste treatment facilities, power generators, production and commercialization of certain chemical substances), imposition of liability for environmental damage (e.g. site decontamination), adoption of sanitary or health measures, design and administration of feed-in tariffs schemes (e.g. requirement of 'buy local' to participate in a renewable energy subsidy scheme) or tariff setting in some regulated industries (e.g. water or gas distribution). As to the amounts involved, they range from a few million dollars to some astronomical amounts (e.g. with \$18 billion at stake in the case brought by Chevron Corporation against the Republic of Ecuador).

One important legal question that arises in this context is the extent to which international environmental law is relevant for solving these investment disputes. Even in those cases where the environmental measures challenged are domestic in nature, they may be induced – explicitly or implicitly – or justified by the obligations undertaken by the State hosting the investment under international environmental law. In practice, the treatment of purely domestic and internationally-induced measures has been amalgamated by investment

³² *Ibid.*, p. 39.

tribunals. Conflicts between two norms of international law ('normative conflicts') have thus been conflated with conflicts between a domestic (environmental) measure and an international (investment) norm ('legitimacy conflicts').

The difference between framing the issue in one or the other way is legally significant, because the rules applicable to solve potential conflicts and the broader understanding of the dispute are not the same in the two scenarios. Specifically, the general rule of international law (followed by international tribunals) according to which international law prevails over domestic law³³ would place domestic environmental measures (even those that implement environmental treaties) in a subordinate position with respect to investment treaties. More generally, the perceived disconnection between domestic environmental measures and environmental treaties may undermine the legitimacy attached to such measures by investment tribunals.

As a result, the impact of environmental treaties on foreign investment disputes is difficult to determine. As a general matter, investment tribunals can follow three different approaches in this regard.

12.2.3.2 The practice of investment tribunals³⁴

The 'traditional approach' was to consider all conflicts as legitimacy conflicts. The environmental measures adopted by host States were thus seen as 'suspicious' (unilateral protectionism in disguise) and in all events 'subordinated' to international (investment) law (as a result of the aforementioned rule that international law prevails over domestic law). This view, which may have reflected the specific factual configurations of some early cases (e.g. *S.D. Myers v. Canada*,³⁵ *Metalclad v. Mexico*,³⁶ *CDSE v. Costa Rica*,³⁷ *Tecmed v. Mexico*³⁸), has sometimes been extrapolated to the assessment of genuinely

³³ See e.g. *Southern Pacific Properties (Middle East) Limited (SPP) v. Arab Republic of Egypt*, ICSID Case No. ARB/84/3, Award (20 May 1992) ('*SPP v. Egypt*'), paras. 75–6; *Compañía del Desarrollo de Santa Elena SA v. Republic of Costa Rica*, ICSID Case No. ARB/96/1, Award (17 February 2000) ('*CDSE v. Costa Rica*'), paras. 64–5.

³⁴ For a detailed analysis of the issues discussed in this section, see J. E. Viñuales, 'The Environmental Regulation of Foreign Investment Schemes under International Law', in Dupuy and Viñuales, *supra* n. 3, pp. 273–320.

³⁵ *S.D. Myers Inc. v. Canada*, NAFTA Arbitration (UNCITRAL Rules), Partial Award (13 November 2000) ('*S.D. Myers v. Canada*'). The evidence of the case led to the conclusion that the export ban of hazardous waste that was challenged by the US investor had indeed been adopted to favour Canadian competitors.

³⁶ *Metalclad Corp. v. United Mexican States*, ICSID Case No. ARB(AF)/97/1, Award (25 August 2000) ('*Metalclad v. Mexico*'). The decree creating a natural preserve for the protection of cacti came very late in the dispute, which concerned the refusal of a permit to build a landfill for non-genuinely environmental reasons.

³⁷ *CDSE v. Costa Rica*, *supra* n. 33. The decree formally expropriating the land owned by investor did not refer to any of the potentially applicable environmental treaties.

³⁸ *Técnicas Medioambientales Tecmed S.A. v. United Mexican States*, ICSID Case No. ARB(AF)/00/2, Award (29 May 2003) ('*Tecmed v. Mexico*'). Despite genuine environmental concerns, the refusal to renew the operation permit of the investor's waste treatment facility followed the growing public opposition regarding the scheme.

environmental and even internationally-induced measures, with the unfortunate result that environmental considerations remain legally subordinated to purely economic considerations.

At the opposite side of the spectrum, it would be possible to consider conflicts as 'normative conflicts'. Under this view, most domestic environmental measures would be seen as being internationally-induced (standing on an equal footing with other international norms, such as investment disciplines) and reflecting multilateral action (thus defeating the suspicion of unilateral protectionism). This view would, in fact, apply a different set of conflict rules to different types of conflicts ('legitimacy' and 'normative' conflicts)³⁹ and, more generally, defuse the suspicion and mistrust that some tribunals still see, despite the rise of environmental awareness at the global level, as the starting-point in the analysis of environmental regulation. While such an approach would be more accurate from a strictly legal perspective, it faces daunting practical challenges. First, as we saw in Chapters 4 to 7, international environmental norms tend to be couched in rather broad (even vague) terms, making it difficult – albeit not impossible – to establish a clear link between a domestic environmental measure and an international environmental obligation. Two contrasting examples are provided by the *Aviation* case before the CJEU, where Article 2 of the Kyoto Protocol was deemed to require action to curb emissions but not the adoption of any specific measure,⁴⁰ and the *Bonaire* case, where a Dutch court concluded that a norm as broadly stated as Article 3 of the Ramsar Convention was directly applicable and justified the refusal of an authorisation by Dutch authorities.⁴¹ Second, this link would in all events have to be recognised by the arbitral tribunals specifically established to deal with investment (not environmental) disputes. Although the question whether such tribunals are biased in favour of investors'

³⁹ In *SD Myers v. Canada*, the tribunal considered the Canadian argument that the measure challenged had been adopted pursuant to the Basel Convention on Hazardous Waste, which prevailed over the obligations arising from the NAFTA as a result of the conflict norm in Art. 104 of NAFTA. This conflict norm was not technically applied because the US had not ratified the Basel Convention. See *SD Myers v. Canada*, *supra* n. 35, para. 150 (Canadian argument) and 213–15 (tribunal's rejection of the argument).

⁴⁰ The case concerned a challenge to the extension of the ETS Directive (*supra* n. 23) to the aviation sector. The Court reasoned that the Protocol allowed the parties to comply with the objectives in the manner and at the pace they deemed most appropriate and added that Article 2(2) was not sufficiently precise to be directly relied upon. *Air Transport Association of America and Others v. Secretary of State for Energy and Climate Change*, CJEU Case C-366/10 (21 December 2011), paras. 76–7.

⁴¹ *Netherlands Crown Decision (in Dutch) in the case lodged by the Competent Authority for the Island of Bonaire on the annulment of two of its decisions on the Lac wetland by the Governor of the Netherlands Antilles*, 11 September 2007, Staatsblad 2007, 347 ('*Bonaire*'). Specifically, the Dutch Council of State judged that Article 3 was directly enforceable at the domestic level and upheld on this basis an administrative decision cancelling a permit to build a holiday resort in a buffer zone surrounding a Ramsar protected site. See M. Bowman, P. Davies and C. Redgwell, *Lyster's International Wildlife Law* (Cambridge University Press, 2nd edn., 2010), p. 419.

interests or not is highly controversial, it seems clear that, with (still) rare exceptions,⁴² they are not yet ready to treat international environmental law on an equal footing with investment treaties. To use a metaphor, international environmental law would at best be an 'immigrant' in the land of international investment law, much in the same way as in the context of the WTO dispute settlement, discussed later in this chapter. In both cases, international environmental law is only granted the space specifically allocated to it by investment or trade law.

However, some recent developments suggest that there may be an alternative approach between the inadequate traditional view and the unrealistic progressive view. Indeed, environmental considerations are now finding increasing room in foreign investment disputes through the interpretation of some legal concepts such as the police powers doctrine, the definition of 'like circumstances', the level of reasonableness required from investors or the use of emergency and necessity clauses. Thus, in *Chemtura v. Canada*, the tribunal considered that a measure banning the production and commercialisation of an environmentally harmful pesticide was a valid exercise of the police powers of Canada and therefore rejected the investor's claim for compensation.⁴³ In *Parkerings v. Lithuania*, the tribunal rejected a claim for breach of the most-favoured-nation clause (a non-discrimination standard) on the grounds that the project of the claimant had an adverse impact on a UNESCO-protected site and, as a result, it was not in 'like circumstances' with the project of the other investor identified as the comparator.⁴⁴ In *Plama v. Bulgaria*, the tribunal considered that a change in the domestic environmental laws placing the financial burden of decontaminating a site on the investor was not in breach of the applicable investment agreement because the investor should have been aware, had it deployed all the due diligence expected from it, that such a regulatory change was being discussed in the Bulgarian parliament at the time it made the investment.⁴⁵ Finally, in some cases against Argentina, particularly in the one brought by *LG&E*, the tribunal considered that the violation of an investment treaty by Argentina was justified by the need to

⁴² In *SPP v. Egypt*, an arbitral tribunal chaired by the former President of the International Court of Justice concluded that Egypt had breached its investment obligations (based on domestic law and a contract) but added that no compensation was due for the period after the inscription of the pyramids site in the World Heritage List, because from that moment onwards the investment would have become illegal under international law, namely the World Heritage Convention. See *SPP v. Egypt*, *supra* n. 33, para. 191.

⁴³ *Chemtura Corporation (formerly Crompton Corporation) v. Government of Canada*, UNCITRAL, Award (2 August 2010) ('*Chemtura v. Canada*'), para. 266. The tribunal referred to its analysis of the claim under Art. 1105, which explained that the measure adopted by Canada was consistent with its obligations under international environmental law (the POP Protocol to the LRTAP Convention and the POP Convention, discussed in Chapters 5 and 7).

⁴⁴ *Parkerings-Compagniet AS v. Republic of Lithuania*, ICSID Case No. ARB/05/8, Award (11 September 2007) ('*Parkerings v. Lithuania*'), para. 392.

⁴⁵ *Plama Consortium Ltd. v. Republic of Bulgaria*, ICSID Case No. ARB/03/24, Award (27 August 2008), para. 219–21.

	Whether environmental measures tend to be seen as:			
	Covert protectionism	Genuine regulation	Domestic in nature	Internationally-induced
Traditional approach	✓		✓	
Progressive approach		✓		✓
Upgraded approach		✓	✓	

Figure 12.1: Jurisprudential approaches to the investment/environment link

ensure the affordability of some basic public services during an economic and social crisis.⁴⁶ The three approaches discussed so far are summarised in Figure 12.1.

Of course, each measure and each case have their specific legal and political contexts, and tribunals must decide on that basis. The three approaches summarised in Figure 12.1 are only intended to depict trends or general ‘mindsets’ that may co-exist and the relative weight and influence of which varies over time to reflect the changing perception of environmental protection as an increasingly important regulatory object. The latter (‘upgraded’) approach is no doubt the most pragmatic one, and it is therefore unsurprising that contemporary practice in investment treaty making is consistent with the need to give more explicit policy space for environmental regulation.

12.2.3.3 Investment treaty practice

In the last two decades the space devoted to environmental considerations in both investment and free-trade agreements (‘IIAs’) has significantly expanded. According to a report published by the OECD in 2011 and covering 1623 IIAs (approximately 50 per cent of the then existing IIAs) only 8.2 per cent of IIAs analysed include express references to environmental concerns.⁴⁷ However, if a time dimension is added, the overall picture changes drastically. Indeed, the OECD Report shows that, since the mid 1990s:

⁴⁶ *LG&E v. Argentina*, ICSID Case No. ARB/02/1, Decision on Liability (13 October 2006) (‘*LG&E v. Argentina*’), paras. 234–37, 245. In two other cases, the arbitral tribunals considered that the provision of water and sanitation services was an ‘essential interest’ of States in the meaning of the necessity rule codified in the 2001 ILC Articles on State Responsibility. See *Suez, Sociedad General de Aguas de Barcelona S.A. and InterAguas Servicios Integrales del Agua SA v. The Argentine Republic*, ICSID Case No. ARB/03/17, Decision on Liability (30 July 2010), para. 238; *Suez, Sociedad General de Aguas de Barcelona, SA and Vivendi Universal, SA v. The Argentine Republic*, ICSID Case No. ARB/03/19, Decision on Liability (30 July 2010), para. 260.

⁴⁷ K. Gordon and J. Pohl, ‘Environmental Concerns in International Investment Agreements: A Survey’ (2011) *OECD Working Papers on International Investment* No. 2011/1 (‘OECD Report’), p. 8.

the proportion of newly concluded IIAs that contain environmental language began to increase moderately, and, from about 2002 onwards, steeply . . . reaching a peak in 2008, when 89% of newly concluded treaties contain[ed] reference to environmental concerns.⁴⁸

There are different types of references to environmental considerations. The Report identifies seven categories of recurring environmental provisions in IIAs:

- [1] General language in preambles that mentions environmental concerns and establishes protection of the environment as a concern of the parties to the treaty . . .
- [2] Reserving policy space for environmental regulation . . .
- [3] Reserving policy space for environmental regulation for more specific, limited subject matters (performance requirements and national treatment) . . .
- [4] [P]rovisions that clarify the understanding of the parties that non-discriminatory environmental regulation does not constitute 'indirect expropriation' . . .
- [5] [P]rovisions that discourage the loosening of environmental regulation for the purpose of attracting investment . . .
- [6] [P]rovisions related to the recourse to environmental experts by arbitration tribunals . . .
- [7] [P]rovisions that encourage strengthening of environmental regulation and cooperation.⁴⁹

The frequency of these provisions varies from one country to another and over time. The most common category (62 per cent of the 133 IIAs including environmental language) is the general reservation of policy space for environmental regulation (category 2), which has, indeed, a potentially permissive effect. More specific (categories 3 and 4) and more progressive (category 7) provisions are less frequent (14 per cent for category 3; 9 per cent for category 4; and 18 per cent for category 7).

Overall, these results suggest that IIAs are increasingly sensitive to environmental considerations, but that the current approach tends to favour broad and to some extent uncertain clauses. For present purposes, the main message is that the practice of investment treaty-making reflects the same trend as the jurisprudence of investment tribunals and the policy processes discussed earlier, namely the increasing interaction between the norms protecting the environment and those for the promotion and protection of foreign investment. As discussed next, the connection between trade and environmental regulation followed a similar path, although starting already in the 1990s, largely as a result of the parallel negotiation processes

⁴⁸ *Ibid.*, p. 8. ⁴⁹ *Ibid.*, p. 11 (the numbering has been added and italics omitted).

leading to the 1992 Earth Summit and to the conclusion of the Uruguay trade round in 1994.⁵⁰

12.3 Environmental protection and international trade law

12.3.1 Overview

Much like the investment/environment connection, the impact of trade liberalisation on environmental protection is ambiguous, as it may lead to a more efficient use of natural resources, as a result of global competition among producers, or to a wider circulation of environment-friendly goods and technologies, but it may also place constraints on legitimate environmental restrictions or contribute to the wider circulation of polluting substances.⁵¹ Unlike the investment/environment connection, however, the trade/environment link has occupied the attention of legal commentators for at least two decades.⁵²

In point of fact, the importance of reconciling these two bodies of law was recognised very early in the history of trade regulation. The failed 1948 Havana Charter⁵³ and even its predecessor, the 1927 Convention for the Abolition of Import and Export Prohibitions and Restrictions,⁵⁴ both contained explicit exceptions to accommodate what today would be called environmental measures.⁵⁵ The question arose again in the run-up to the Stockholm

⁵⁰ On this connection, see K. von Moltke, 'The Last Round: The General Agreement on Tariffs and Trade in Light of the Earth Summit' (1993) 23 *Environmental Law* 519.

⁵¹ On this debate see e.g. J. Frankel and A. Rose, 'Is Trade Good or Bad for the Environment? Sorting out the Causality' (2005) 87 *Review of Economics and Statistics* 85 (who find that trade tends to reduce air pollution and is not generally negative on other environmental indicators); J. Frankel, *Environmental Effects of International Trade*, Expert Report no. 301, commissioned by Sweden's Globalisation Council (2008), available at: www.hks.harvard.edu (last visited on 20 April 2014).

⁵² Some of the seminal work on this connection includes D. Zaelke, R. Housman and P. Orbach (eds.), *Trade and the Environment: Law, Economics and Policy* (Washington DC: Island Press, 1993); D. Esty, *Greening the GATT: Trade, Environment, and the Future* (Washington DC: Institute for International Economics, 1994); E. U. Petersmann, *International and European Trade and Environmental Law after the Uruguay Round* (The Hague: Kluwer, 1995); E. Brown Weiss and J. Jackson (eds.), *Reconciling Environment and Trade* (Ardsley NY: Transnational Publishers, 2001). For two more recent studies, see E. Vranes, *Trade and the Environment. Fundamental Issues in International Law, WTO Law, and Legal Theory* (Oxford University Press, 2009); J. Watson, *The WTO and the Environment* (London: Routledge, 2013). For concise overviews, see S. Charnovitz, 'The WTO's Environmental Progress', in W. J. Davey and J. Jackson (eds.), *The Future of International Economic Law* (Oxford University Press, 2008), pp. 247–68; D. Bodansky and J. Lawrence, 'Trade and Environment', in D. Bethlehem, D. McRae, R. Neufeld and I. Van Damme (eds.), *The Oxford Handbook of International Trade Law* (Oxford University Press, 2009), pp. 505–38.

⁵³ Havana Charter for an International Trade Organisation, 24 March 1948, UN Doc. E/Conf. 2178, Art. 45(1)(a)(x).

⁵⁴ Convention for the Abolition of Import and Export Prohibitions and Restrictions, 8 November 1927, 97 LNTS 391, Art. 4.

⁵⁵ Both instruments are referred to in Charnovitz, *supra* n. 52, pp. 247–8.

Conference and, in 1971, it led to the creation by the States parties to the GATT of a 'Working Group on Environmental Measures and International Trade' ('EMIT Group'), which was to remain inactive until the 1992 Earth Summit.⁵⁶ Indeed, it was not until the early 1990s that the debate was reignited as a result of different interlinked processes including the dispute between Mexico and the United States over imports of tuna,⁵⁷ the negotiation of the North American Free Trade Agreement ('NAFTA'),⁵⁸ the process leading to the Earth Summit and, of course, the Uruguay trade round concluded in 1994.⁵⁹

The establishment of the WTO brought a number of environmentally significant advances, including the introduction of a reference to sustainable development in the preamble of the Marrakesh Agreement⁶⁰ and the adoption of a Ministerial Decision on Trade and Environment, setting up the Committee on Trade and Environment ('CTE') in lieu of the dormant EMIT Group.⁶¹ The CTE has contributed to the clarification of the trade/environment interface through discussions and studies, and it has fostered interactions between trade and environment officials at the national and international levels. Over time, environmental considerations have grown in importance within the WTO context, as acknowledged by the 'trade and environment' work programme envisioned in the 2001 Ministerial Declaration launching the Doha negotiation round.⁶² The negotiations in this regard were entrusted to the CTE or to special sessions of it ('CTESS') focusing on the connection between trade law and environmental treaties as well as on the facilitation of trade in environmental goods and services ('EGS'). At the time of writing, however, very limited progress had been made on these items from a legal perspective.

The Doha Ministerial Declaration remains, nevertheless, a useful indication of the main areas where synergies are being explored (mostly through 'mutual supportiveness' and EGS) and potential tensions are being circumscribed in an attempt to avert or minimise them (conflicts between trade law and environmental treaties and environmental differentiation within trade law). Figure 12.2 summarises the areas discussed in the following sections.

⁵⁶ See Bodansky and Lawrence, *supra* n. 52, p. 514.

⁵⁷ *United States – Restrictions on Imports of Tuna*, Panel Report, DS21/R-39S/155 (3 September 1991) ('*Tuna-dolphin I*').

⁵⁸ North American Free Trade Agreement, 17 December 1992, 32 ILM 296 ('NAFTA'). Together with the NAFTA, the parties concluded a parallel North American Agreement on Environmental Cooperation, 17 September 1992, 32 ILM 1519 ('NAAEC').

⁵⁹ See von Moltke, *supra* n. 50.

⁶⁰ Agreement establishing the World Trade Organisation, 15 April 1994, 1867 UNTS 154.

⁶¹ Marrakesh Ministerial Decision on Trade and Environment, 14 April 1994, MTN.TNC/45MIN.

⁶² WTO Ministerial Conference Fourth Session, Ministerial Declaration, WT/MIN(01)/DEC/1 (20 November 2001) ('Doha Declaration'), para 28, 31–3, 51.

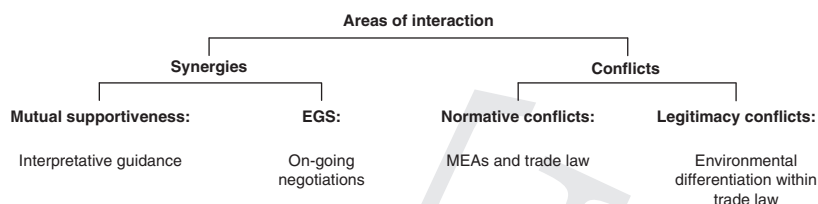


Figure 12.2: Legal aspects of the trade/environment link

There are significant connections and, sometimes, partial overlaps among these areas. Some of the solutions to potential conflicts (e.g. mutually supportive interpretation) can, in fact, be seen as synergistic approaches. Yet, the distinction between synergies and conflicts is helpful to bring trade under the same conceptual chart used to assess the connection between environmental protection and investment or human rights law.

12.3.2 Synergies

12.3.2.1 Mutual supportiveness

The environmental aspects of trade regulation received much attention in the negotiation process leading to the 1992 Earth Summit. The results of the Summit and, specifically, Principle 12 of the Rio Declaration⁶³ and Chapter 2 of Agenda 21⁶⁴ addressed the concern expressed by developing countries that environmental regulation may be used to curtail market access to their exports. Agenda 21 stressed the need to make trade and environment ‘mutually supportive’.⁶⁵ Similar considerations underpin the reference to sustainable development in the first paragraph of the preamble of the WTO Agreement, although the emphasis is placed here on the efficient use of natural resources.

Over the following two decades, the concept of ‘mutual supportiveness’, much as that of ‘sustainable development’, was used in a number of international instruments to articulate the connection between environmental treaties and trade disciplines from a synergistic rather than a conflicting perspective.⁶⁶ Examples include the preambles of the 1998 PIC Convention,⁶⁷ the 2000

⁶³ ‘Rio Declaration on Environment and Development’, 13 June 1992, UN Doc. A/CONF.151/26. Rev.1 (‘Rio Declaration’).

⁶⁴ Agenda 21, *supra* n. 11. ⁶⁵ *Ibid.*, paras. 2.3(b) and 2.9(d).

⁶⁶ See R. Pavoni, ‘Mutual Supportiveness as a Principle of Interpretation and Law-Making: A Watershed for the “WTO-and-Competing-Regimes” Debate?’ (2010) 3 *European Journal of International Law* 649, 654–5 (referring to the ‘conflict clause’ in Art. 22(1) of the Convention on Biological Diversity. One may add Art. 104 of the NAFTA as an illustration of this approach).

⁶⁷ Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, 10 September 1998, 2244 UNTS 337, preamble, paras. 8–10.

Biosafety Protocol,⁶⁸ the 2001 Treaty on Plant Genetic Resources,⁶⁹ the 2001 POP Convention⁷⁰ or, more recently, Articles 20 of the 2005 UNESCO Convention on Cultural Diversity⁷¹ and 4 of the 2010 Nagoya Protocol.⁷²

One important legal question that arises in this context concerns the implications of 'mutual supportiveness'. These may range from a mere policy statement, to an interpretative guideline (or according to some commentators 'principle'), to a conflict clause allocating hierarchy, to even a 'law-making' principle.⁷³ The question has not been explicitly addressed, let alone settled, in the case-law but there is some authority for the proposition that mutual supportiveness may at least play an interpretative role in trade disputes. The high water mark on this point remains the 1998 report of the WTO Appellate Body ('AB') in the *Shrimp-Turtle* case.⁷⁴ The case concerned a domestic environmental measure adopted by the United States and affecting the imports of shrimp harvested in a manner that did not afford sufficient protection to sea turtles. As part of its defence, the United States invoked the general exception in Article XX(g) of the GATT concerning the protection of exhaustible natural resources. Despite the fact that the AB eventually concluded that the measure was not justified under Article XX (as it violated its chapeau), it referred both to the preamble of the WTO Agreement and to two environmental treaties, the UNCLOS⁷⁵ and the CITES,⁷⁶ to interpret Article XX(g). According to the AB, the terms 'exhaustible natural resources' in Article XX(g) had to be interpreted 'in the light of contemporary concerns of the community of nations about the protection and conservation of the environment'.⁷⁷

This approach to interpretation, which can be seen as a general application of the customary rule of systemic integration codified in Article 31(3)(c) of the Vienna Convention on the Law of Treaties,⁷⁸ has not been consistently

⁶⁸ Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 29 January 2000, 39 ILM 1027, preamble, paras. 9–11.

⁶⁹ International Treaty on Plant Genetic Resources for Food and Agriculture, 3 November 2001, 2400 UNTS 379, preamble, paras. 9–11.

⁷⁰ Stockholm Convention on Persistent Organic Pollutants, 22 May 2001, 40 ILM 532 (2001), preamble, para. 9.

⁷¹ Convention on the Protection and Promotion of the Diversity of Cultural Expressions, 20 October 2005, 2440 UNTS 311.

⁷² Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of the Benefits Arising from their Utilization to the Convention on Biological Diversity, 29 October 2010, available at: www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf (last visited on 20 April 2014).

⁷³ See Pavoni, *supra* n. 66, who argues that the principle requires good faith negotiations to amend, as necessary, the relevant treaties so as to achieve mutual supportiveness.

⁷⁴ *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, Report of the Appellate Body, 12 October 1998, WT/DS58/AB/R ('*Shrimp-Turtle*').

⁷⁵ United Nations Convention on the Law of the Sea, 10 December 1982, 1833 UNTS 397.

⁷⁶ Convention on International Trade in Endangered Species of Wild Fauna and Flora, 3 March 1973, 983 UNTS 243.

⁷⁷ *Shrimp-Turtle*, *supra* n. 74, paras. 129–32.

⁷⁸ Vienna Convention on the Law of Treaties, 23 May 1969, 1155 UNTS 331 ('VCLT'). See *Oil Platforms case (Islamic Republic of Iran v. United States of America)*, ICJ Reports 2003, p. 161, para. 41.

followed by the WTO Dispute Settlement Body. In a 2006 panel report in the *EC – Biotech* case, a restrictive understanding of systemic integration was used to disregard the potential impact of the Convention on Biological Diversity and the Cartagena Protocol on Biosafety on the interpretation of the applicable trade disciplines.⁷⁹

More recently, in *China – Raw Materials*, China referred to mutual supportiveness and to permanent sovereignty over natural resources to justify, under Article XX(g), the export restrictions it imposed on certain raw materials.⁸⁰ In a much debated ruling, the panel and later the AB considered that China could not rely on Article XX to justify a breach of its Protocol of Accession, but they nevertheless discussed the availability of Article XX both *arguendo* and in connection with breaches of the GATT. The panel mentioned among others the characterisation of the term ‘conservation’ in a number of environmental agreements, including the CBD, as guidance to clarify the ordinary meaning of Article XX(g).⁸¹ It then referred to the report of the AB in *Shrimp–Turtle* and, specifically, to the preamble of the WTO Agreement and its reference to sustainable development.⁸² Significantly, the panel expressly acknowledged the need to ‘take into account in interpreting Article XX(g) principles of general international law applicable to WTO Members’ but it quoted, as an authority for this assertion, the report of the panel in *EC – Biotech*.⁸³ It thereafter reasoned that the interpretation of Article XX(g) had to take into account the customary principle of sovereignty over natural resources. The customary nature of such principle excluded any difficulties arising from the narrower understanding of systemic integration expounded in *EC – Biotech*. For present purposes, the main point to be highlighted is the express recognition of mutual supportiveness by the panel: ‘[c]onservation and economic development are not necessarily mutually exclusive policy goals; they can operate in harmony’.⁸⁴

12.3.2.2 Environmental goods and services

Paragraph 31 of the Doha Mandate entrusted the negotiations on EGS to a special session of the CTE. Facilitating trade on EGS could serve a number of purposes, including incentivising green industries worldwide, creating ‘green jobs’ and increasing the diffusion of green products. Portrayed as one of the areas where ‘triple win’ outcomes (i.e. good for trade, the environment and development) could be achieved, the negotiations on EGS have, however, stalled at the WTO level. The main reason is that there is no agreement as to

⁷⁹ *European Communities – Measures affecting the Approval and Marketing of Biotech Products*, WT/DS291/R, WT/DS292/R, WT/DS293/R (29 September 2006), paras. 7.74 and 7.75.

⁸⁰ *China – Measures related to the Exportation of Various Raw Materials*, Panel Reports, WT/DS394/R; WT/DS395/R; WT/DS398/R (5 July 2011) (*‘China – Raw Materials (Panel)’*), para. 7.364.

⁸¹ *Ibid.*, para. 7.372, footnote 594. ⁸² *Ibid.*, para. 7.373. ⁸³ *Ibid.*, para. 7.377.

⁸⁴ *Ibid.*, para. 7.381.

what should be treated as an 'environmental good' or as a related environmental service. There are of course some guiding definitions, such as the one provided by the European Commission and taken up by the OECD:

goods and services capable of measuring, preventing, limiting or correcting environmental damage such as the pollution of water, air, soil, as well as waste and noise-related problems. They include clean technologies where pollution and raw material use is being minimized.⁸⁵

However, as noted in the 2015 UNEP's Handbook on *Trade and Green Economy*,⁸⁶ each of the categories potentially encompassed by this facilitated trade regime faces daunting definitional challenges.

The first category would cover goods that can be used for prevention, monitoring and remediation of environmental impacts. Yet, many of these goods have 'dual uses' (e.g. a thermostat) and, as a result, the link they entertain with such specifically environmental uses could be turned into an excuse for their facilitated trading for other uses. The second category concerns goods with an allegedly lower environmental footprint. This category faces a major issue of comparability and ranking. By way of illustration, how a gasoline-run but fuel-efficient car should be compared with a biofuel-run but fuel-less-efficient car, particularly if we take into account not only emissions but also impact on land-use change and water efficiency? The third category is, quite ironically, deemed to be more 'environmental' as a result of their processes and production methods ('PPMs'). This issue, as discussed later in this chapter, is very controversial in the trade context because it would entail differential treatment of two 'like' or even identical goods because of the way (more or less polluting) in which they have been produced. Thus, the EGS debate is potentially an environmental 'Trojan horse' within the WTO if not adequately circumscribed to maintain the focus on product characteristics rather than on production processes.

Despite these obstacles, significant progress has been made on this front at the regional level. In September 2012, the twenty-one countries of the Asia-Pacific Economic Cooperation group ('APEC') reached an agreement to reduce tariffs to a ceiling of 5 per cent on a list of fifty-four environmental goods⁸⁷ in which they already handled a large majority of world trade. The 'Declaration' embodying this agreement expressly notes that their reduction

⁸⁵ OECD, *The Global Environmental Goods and Services Industry* (Paris: OECD, 1994), p. 4. For more recent overviews of characterisations see: A. Viklhyayev, 'Environmental Goods and Services: Defining Negotiations or Negotiating Definitions?' (2004) *UNCTAD Trade and Environment Review*, available at: unctad.org/en/docs/ditcted20034a2_en.pdf (last visited on 20 April 2014); World Bank, *Inclusive Green Growth: The Pathway to Sustainable Development* (Washington DC: World Bank, 2012), pp. 92–3.

⁸⁶ UNEP, *Trade and Green Economy: A Handbook* (Geneva: UNEP, 3rd edn, forthcoming,) ('Handbook'), Section 4.10.

⁸⁷ See '20th APEC Economic Leaders' Declaration', Vladivostok, Russia, 9 September 2012, Annex C: APEC List of Environmental Goods, available at: www.apec.org (last visited on 20 April 2014).

commitment 'is without prejudice to [the APEC countries'] positions in the World Trade Organization (WTO)'. A similar initiative, focusing only on goods, is currently being negotiated on a plurilateral level, i.e. involving some members of the WTO from different regions, including Australia, Canada, China, the EU, Japan, Korea, New Zealand, Norway, Singapore, Switzerland and the United States, among others. The idea emerged on the side of the 2014 Davos forum and it was formally launched in July 2014.⁸⁸

As suggested by these examples, there is significant room for specific synergies within the trade/environment link. Although so far synergies have mostly been of a general nature (resource efficiency gains through increased competition and technology transfer through trade), the regional APEC initiative and the potential plurilateral Agreement on Environmental Goods illustrate ways in which trade law can be specifically harnessed to promote environmental protection. However, the potential for synergies must not overshadow the need for prevention and minimisation of frictions between trade and environmental law.

12.3.3 Conflicts

12.3.3.1 Normative conflicts v. legitimacy conflicts

The distinction introduced earlier in this chapter between normative conflicts (conflicts involving two or more norms of international law) and legitimacy conflicts (conflicts involving one international obligation and one domestic measure) is useful to frame the interactions between trade and investment regulation. Much like in investment law, the impact of international environmental law on trade law remains unclear.

Although the potential frictions between them were recognised early in the history of trade regulation⁸⁹ and several initiatives have been taken to clarify it, including as part of the Doha mandate,⁹⁰ the attempts at developing some form of 'progressive' approach have been unsuccessful. However, as discussed next, over time trade panels have paid increasing attention to environmental protection moving from a 'traditional' approach (sometimes called 'inward looking'), which saw environmental measures as protectionist and subordinated to trade disciplines, to an 'upgraded' one (sometimes called 'outward looking'),⁹¹ a sort of '*glasnost*' where environmental considerations and international environmental law are taken into account to interpret trade law.

⁸⁸ See 'Group of WTO Members Launch Talks on "Green Goods"', available at: www.twinside.org.sg/title2/wto.info/2014/ti140706.htm (last visited on 20 April 2014).

⁸⁹ See *supra* n. 53. ⁹⁰ See *supra* n. 62, para. 31.

⁹¹ A famous passage of the AB Report in *US – Reformulated Gasoline* is often referred to as the beginning of this openness process. The AB noted that the GATT was 'not to be read in clinical isolation from public international law', *United States – Standards for Reformulated and Conventional Gasoline*, AB Report (29 April 1996), WT/DS2/AB/R ('*US – Reformulated Gasoline*'), p. 17.

This is important in practice because many States are increasingly pursuing ‘green industrial policies’, namely policies aimed at developing strong and competitive industries in environment-related sectors (e.g. renewable energies), which, in turn, may fall foul of international trade and investment disciplines. Recent examples of frictions arising from such policies include the dispute between China and the EU over local content requirements in the renewable energy policy of some European States,⁹² those between Japan and Canada⁹³ or the US and India relating to a similar issue⁹⁴ or, still, the suits filed by Argentina and Indonesia against the antidumping measures on biofuels imposed by the EU.⁹⁵

12.3.3.2 Multilateral environmental treaties and trade regulation

The potential normative conflicts between trade and environmental treaties have been mostly analysed in connection with the so-called ‘TREMs’ or ‘trade-related environmental measures’. Indeed, several important environmental treaties impose trade restrictions or even ban the trade in certain substances.

Broadly speaking, a distinction can be made between those treaties the main purpose of which is to impose trade restrictions and those in which trade restrictions are one implementation tool among others. The first category includes treaties spelling out the principle of prior informed consent (‘PIC’) analysed in Chapter 3, such as the Basel Convention,⁹⁶ the PIC Convention⁹⁷ or the Cartagena Protocol on Biosafety,⁹⁸ but also others such as the CITES, which seeks to protect endangered species (mostly located in developing countries) through the control of demand (from developed countries).⁹⁹ The

⁹² See *European Union and certain Member States – Certain Measures Affecting the Renewable Energy Generation Sector – Request for Consultations by China* (7 November 2012), WT/DS452/1, G/L/1008, G/SCM/D95/1, G/TRIMS/D/34. The dispute was settled in late July 2013, although there have been several iterations on more specific components of solar panels.

⁹³ See *Canada – Certain Measures Affecting the Renewable Energy Generation Sector*, Panel Report (19 December 2012), WT/DS412/R and *Canada – Measures Relating to the Feed in Tariff Program*, WT/DS426/R, AB Report (6 May 2013), WT/DS412/AB/R and WT/DS426/AB/R (‘*Canada – Renewables*’). At least two claims have been brought against Canada by foreign investors claiming that some aspects of the feed-in-tariff scheme introduced by Ontario are in breach of the investment chapter of the NAFTA. See *Mesa Power Group LLC v. Government of Canada*, NAFTA (UNCITRAL) Arbitration, Notice of Arbitration (4 October 2011); *Windstream Energy LLC v. Government of Canada*, NAFTA (UNCITRAL), Notice of Arbitration (28 January 2013).

⁹⁴ *India – Certain Measures Relating to Solar Cells and Solar Modules*, DS456. A panel was established on May 2014.

⁹⁵ See *European Union and certain Member States – Certain Measures on the Importation and Marketing of Biodiesel and Measures Supporting the Biodiesel Industry – Request for Consultations by Argentina* (23 May 2013), WT/DS459/1, G/L/1027, G/SCM/D97/1, G/TRIMS/D/36, G/TBT/D/44; *European Union – Anti-Dumping Measures on Biodiesel from Indonesia – Request for consultations by Indonesia* (17 June 2014), WT/DS480/1, G/L/1071, G/ADP/D104/1.

⁹⁶ Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 22 March 1989, 1673 UNTS 57 (‘Basel Convention’).

⁹⁷ See *supra* n. 67. ⁹⁸ See *supra* n. 68. ⁹⁹ See *supra* n. 76.

second category includes treaties such as the Montreal Protocol¹⁰⁰ or the POP Convention,¹⁰¹ where trade measures (typically a ban of transfers to non-parties) are useful to avoid shifting the production and/or the consumption of regulated substances to States that are not parties to the treaty. Of course, as most treaties use different regulatory techniques, such trade bans are also found in treaties of the first category, such as the Basel Convention, which bans trade with non-parties unless they have a similarly protective system regulating hazardous waste.¹⁰²

Such TREMs have been analysed in some detail in trade circles. By way of illustration, the WTO Secretariat has compiled a 'matrix' of environmental treaties containing TREMs¹⁰³ and the Doha mandate entrusted to a special session of the CTE the task of clarifying the relations between such TREMs and the WTO Agreements.¹⁰⁴ Despite their limited success, the value of these efforts to broaden the trade 'mindset' must not be underestimated. This said, it is important not to confine this analysis within a broader but still narrow understanding of conflicts or frictions as essentially limited to TREMs.

Indeed, TREMs are not the only measures required or authorised by environmental treaties that may conflict with trade disciplines. A treaty that does not explicitly require the adoption of a TREM, such as the UNFCCC or the Kyoto Protocol, may be interpreted as authorising the adoption of TREMs or other (non-TREM) trade relevant measure (e.g. a measure of green industrial policy hitting production of a certain good and thereby lowering the demand of that industry for certain other goods produced both locally and abroad). The debate on the so-called 'border carbon adjustments', i.e. the duties imposed by the importing country on imports that have been produced abroad with a higher level of emissions or, alternatively, the subsidies given to its local producers to compete with foreign products, has overlooked this dimension. The question asked is whether such adjustments would be justified under the general exception (Article XX) of the GATT or consistent with the SCM Agreement,¹⁰⁵ i.e. with trade law, rather than whether such measures are required or justified by environmental treaties. Both questions are important, but a focus on the first must not overshadow the relevance of the second. The misguided understanding that a broadly stated environmental norm is not 'binding' or is 'soft-law' is simply legally incorrect. Broad norms such as 'States shall accord fair and equitable treatment' (in international investment law) or '[c]ongress shall have power to regulate commerce with foreign nations, and

¹⁰⁰ Montreal Protocol on Substances that Deplete the Ozone Layer, 16 September 1987, 1522 UNTS 28 ('Montreal Protocol'), Arts. 4 and 4A.

¹⁰¹ POP Convention, *supra* n. 70, Art. 3(1)(a)(ii) and 3(2).

¹⁰² Basel Convention, *supra* n. 96, Arts. 4(5) and 11(1).

¹⁰³ WTO/CTE, Matrix on Trade Measures pursuant to Selected Multilateral Environmental Agreements, 14 March 2007, WT/CTE/W/160/Rev.4, TN/TE/S/5/Rev.2.

¹⁰⁴ Doha Declaration, *supra* n. 62, para. 31.

¹⁰⁵ Agreement on Subsidies and Countervailing Measures, 15 April 1994, 1867 UNTS 14 ('SCM Agreement').

among the several states' (the commerce clause in the United States Constitution) have been interpreted and applied in great detail. The same logic governs the application of broad environmental norms by an appropriately empowered court. Whether a measure is authorised or prohibited under such broad norms is indeed relevant as the applicable conflict rules or, at the very least, the interpretative approach (Article 31(3)(c) of the VCLT) would be different from that used in a pure trade dispute.

12.3.3.3 Environmental protection in practice

12.3.3.3.1 Processes and production methods ('PPMs')

In international trade adjudication, environmental protection measures remain so far confined to the modest role of a legal possibility 'exceptionally' allowed by trade law. Even if, as discussed in the previous section, it seems unrealistic to expect that trade panels or the AB will treat environmental law on the same footing as trade law (a 'progressive' approach), handling it through 'exceptions' rather than through 'carve-outs' entails significant legal consequences, not the least for the key debate over PPMs. From this perspective, the current approach pursued in trade adjudication can be seen as a shy variation of the 'upgraded approach' referred to earlier.

Indeed, trade law prohibits differentiation between two 'like' products on the basis of the environmental impact of their PPMs. In order to understand this point, it is useful to recall the characterisation of 'likeness' given by the AB in the *EC – Asbestos* case. According to the AB, four sets of characteristics must be taken into account:

- (i) the physical properties of products; (ii) the extent to which the products are capable of serving the same or similar end-uses; (iii) the extent to which consumers perceive and treat the products as alternative means of performing particular functions in order to satisfy a particular want or demand; and (iv) the international classification of the products for tariff purposes.¹⁰⁶

In casu, Canada had challenged a French measure banning the imports of products containing asbestos. One key issue was whether chrysotile asbestos fibres and fibres that can be substituted for them were 'like' products under Article III(4) of the GATT. The panel concluded that they were, but that the measure was justified under Article XX(b) of the GATT ('necessary to protect human, animal or plant life or health'). On appeal, the AB reversed the panel's conclusion stating that the two products were not alike because the different composition of the two products had important health implications. The AB confirmed that in all events the measure was justified under Article XX(b). This case thus stands for the proposition that the different composition of two products may not only give access to an 'exception' (which presupposes a

¹⁰⁶ *European Communities – Measures Affecting Asbestos and Products Containing Asbestos*, AB Report (12 March 2001), WT/DS135/AB/R, para. 101.

breach) but also require an adjustment of the meaning of 'likeness' excluding a breach in the first place. A different matter is whether two products which do not differ in their composition but only in the way they have been produced (non-product-related PPMs) can be lawfully treated differently under one of the above two arguments. This is important from an environmental perspective because the environmental footprint of different PPMs is seldom reflected in the composition of a product.

The 'traditional' or 'inward looking' approach to this question held such differentiation to be discriminatory, excluding even their justification under the general exception clause of Article XX. In the well-known *Tuna-dolphin* cases, the panels concluded that the restriction imposed by the US on imports of tuna harvested with high levels of incidental killing of dolphins were in violation of Article XI of the GATT (which prohibits quantitative restrictions to trade) and could not be justified under the general exception clause in Article XX of the GATT, letters (b) and (g) ('relating to the conservation of exhaustible natural resources').¹⁰⁷ With the advent of the WTO system, a shy 'upgraded' approach, sometimes called 'outward looking', was first introduced by the AB Report in *US – Reformulated Gasoline*¹⁰⁸ and subsequently confirmed in the *Shrimp-turtle* case.¹⁰⁹ Under this approach, PPM-based differentiation is discriminatory (so the two products are deemed 'alike' despite the different environmental impact of their PPMs) but it can be potentially justified if the requirements of Article XX, including its chapeau, are met. Compared to the 'upgraded' approach followed in investment law, this approach is 'shy' in two main respects. First, PPMs are not understood as changing the interpretation of a trade discipline (e.g. the term 'like').¹¹⁰ Second, although such PPMs can be taken into account to justify a measure under an exception clause, so far this possibility has never been admitted in practice.

12.3.3.3.2 The use of general exceptions

Beyond the question of PPMs, the use of exceptions is at present the main avenue through which environmental protection is being brought under trade law. Article XX, sub-paragraphs (a), (b) or (g) of the GATT have been invoked to justify measures such as import bans of retreaded tyres¹¹¹ or seal products¹¹²

¹⁰⁷ See *Tuna-dolphin I*, *supra* n. 57, and *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, Panel report (16 June 1994), DS29/R ('*Tuna-dolphin II*').

¹⁰⁸ *US – Reformulated Gasoline*, *supra* n. 91, p. 17.

¹⁰⁹ *Shrimp-Turtle*, *supra* n. 74, paras. 129–32.

¹¹⁰ See by contrast the analysis of likeness in *Parkerings v. Lithuania*, *supra* n. 44.

¹¹¹ *Brazil – Measures Affecting Imports of Retreaded Tyres*, AB Report (3 December 2007), WT/DS332/AB/R ('*Brazil – Retreaded Tyres*').

¹¹² *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, AB Report (22 May 2014), WT/DS400/AB/R, WT/DS401/AB/R ('*EC – Seal Products*').

or export restrictions of certain raw materials¹¹³ for environmental reasons. In all these cases, the defence based on Article XX failed, mainly because the measures challenged did not meet the exacting requirements of the chapeau, namely that:

measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade.¹¹⁴

Yet, these cases have greatly contributed to the understanding of Article XX and its potential for environmental protection.

By way of illustration, in *Brazil – Retreaded Tyres*, the AB discussed *inter alia* what it means for a measure to be ‘necessary’ to protect human, animal or plant health. It concluded that the measure must be both ‘apt to make a material contribution to the achievement of its objective’¹¹⁵ and proportionate, in that it must be less trade restrictive than other realistically available measures pursuing the same objective.¹¹⁶ Significantly, the AB recognised that:

[C]ertain complex public health or environmental problems may be tackled only with a comprehensive policy comprising a multiplicity of interacting measures. In the short-term, it may prove difficult to isolate the contribution to public health or environmental objectives of one specific measure from those attributable to the other measures that are part of the same comprehensive policy. Moreover, the results obtained from certain actions – for instance, measures adopted in order to attenuate global warming and climate change, or certain preventive actions to reduce the incidence of diseases that may manifest themselves only after a certain period of time – can only be evaluated with the benefit of time.¹¹⁷

This understanding was subsequently confirmed in *China – Raw Materials*.¹¹⁸

In the more recent *EC – Seal Products* case, a ban on the import of seal products was considered ‘necessary to protect public morals’ under Article XX(a), although the challenged measures failed to meet the requirements of the chapeau. This is the first case where an environmental concern such as animal welfare is brought under the protection of public morals in Article XX (a). The content of ‘public morals’ may change over time reflecting the increasing environmental awareness of a State’s population. In this context, the panel and the AB confirmed an earlier finding in a non-environmental case according to which:

¹¹³ *China – Raw Materials (Panel)*, *supra* n 80.

¹¹⁴ For a recent overview of the WTO jurisprudence on the chapeau, see *EC – Seal Products*, *supra* n. 112, paras. 5.296–5.306.

¹¹⁵ *Brazil – Retreaded Tyres*, *supra* n. 111, para.150. ¹¹⁶ *Ibid.*, para. 156. ¹¹⁷ *Ibid.*, para. 151.

¹¹⁸ *China – Raw Materials (Panel)*, *supra* n 80, para. 7.481, 7.485

the content of public morals can be characterized by a degree of variation, and that, for this reason, Members should be given some scope to define and apply for themselves the concept of public morals according to their own systems and scales of values.¹¹⁹

Despite these encouraging developments, one may question whether the use of general exceptions is a suitable approach, let alone the most suitable one, to accommodate environmental protection within trade law. If environmental law is appropriately construed and applied, there is no reason to confine its operation to the availability of an exception. The interpretation of trade disciplines such as Articles I, III or XI of the GATT in the light of other relevant rules of international law applicable between the parties (Article 31(3)(c) of the VCLT) may require an adjustment in the meaning of a term such as 'like' products or other relevant expressions. Establishing the appropriate meaning of a term is not equivalent to proving the availability of a narrow exception. In the latter case, the respondent State has already been found in breach of the treaty and it will have the burden of proving that the measure is justified under an available exception.¹²⁰ So far, the requirements of the chapeau of Article XX have proved to be a formidable obstacle to the justification of environmental measures.

12.3.3.3 Specific trade agreements: SPS and TBT

The power of States to adopt trade-restrictive measures necessary to protect human, animal or plant health is not only covered by an exception in Article XX (which can only come into play once a breach of a trade discipline has been established) but it is also regulated at the level of trade disciplines (primary norms). Indeed, in addition to the general disciplines contained in Articles I, III and XI of the GATT, the SPS Agreement¹²¹ subjects the adoption of such measures to specific requirements aimed at ensuring transparency (through a notification requirement),¹²² administrative due process (through expediency and reasonableness requirements in inspection procedures),¹²³ and some measure of international harmonisation (through references to equivalence and to international standards).¹²⁴ Importantly, the relevant measures must be based on scientific evidence and a risk assessment.¹²⁵

From an environmental perspective, this treaty can be seen as an attempt to circumscribe the scope of prevention within trade law. Beyond prevention (i.e. beyond risk) the scope for the adoption of measures on the basis of

¹¹⁹ *EC – Seal Products*, *supra* n. 112, para. 5.199.

¹²⁰ The burden of proving that the requirements of the chapeau are met comes in addition to that of proving the availability of an exception. See *ibid.*, para. 5.297.

¹²¹ Agreement on the Application of Sanitary and Phytosanitary Measures, 15 April 1994, 1867 UNTS 493 ('SPS Agreement').

¹²² *Ibid.*, Art. 7 and Annex B. ¹²³ *Ibid.*, Art. 8 and Annex C.

¹²⁴ *Ibid.*, Art. 3 and 4 and Annex A. ¹²⁵ *Ibid.*, Art. 2(2) and 5.

precaution (i.e. when there is uncertainty) is tightly defined. Article 5.7 of SPS provides in this regard:

In cases where relevant scientific evidence is insufficient, a Member may provisionally adopt sanitary or phytosanitary measures on the basis of available pertinent information, including that from the relevant international organizations as well as from sanitary or phytosanitary measures applied by other Members. In such circumstances, Members shall seek to obtain the additional information necessary for a more objective assessment of risk and review the sanitary or phytosanitary measure accordingly within a reasonable period of time.

The room left by the SPS Agreement for the adoption of environmental measures on a precautionary basis has been widely discussed, particularly in connection with two cases, *EC – Hormones*¹²⁶ and *EC – Biotech*.¹²⁷ In both cases, the EC sought to justify trade restrictive measures by reference to the precautionary principle discussed in Chapter 3. The argument was unsuccessful. In *EC – Hormones*, the AB declined to take a general stance on the customary basis of the precautionary principle¹²⁸ and noted that, in all events, ‘the precautionary principle ha[d] been incorporated and given a specific meaning in Article 5.7 of the SPS Agreement’.¹²⁹ Similarly, in *EC – Biotech*, the panel reasoned that the legal status of the precautionary principle was still unsettled in general international law¹³⁰ and, as a result, the principle was not relevant for the interpretation of the SPS Agreement.¹³¹

Another important question is that of international standards. This question arises in the context of both the SPS Agreement and the TBT Agreement,¹³² which defines the trade disciplines governing the enactment of technical barriers to trade, such as a variety of environmental and efficiency standards. Both agreements seek to harmonise the basis for the adoption of the relevant measures through the introduction of a rebuttable presumption. Measures based on recognised international standards are deemed to be proportionate (no more trade restrictive than necessary to achieve the goal pursued) under the TBT Agreement¹³³ as well as scientifically sound and necessary under the SPS Agreement.¹³⁴ The availability of this presumption is conditioned on the definition of ‘international standard’. Both the SPS and the TBT Agreements provide some guidance on the identification of appropriate standards. Annex

¹²⁶ *European Communities – Measures concerning Meat and Meat Products (Hormones)*, AB Report (16 January 1998), WT/DS26/AB/R, WT/DS48/AB/R (*‘EC – Hormones’*).

¹²⁷ *EC – Biotech*, *supra* n. 79.

¹²⁸ It noted that ‘it is unnecessary, and probably imprudent, for the Appellate Body in this appeal to take a position on this important, but abstract, question’, *EC – Hormones*, *supra* n. 126, para. 123.

¹²⁹ *Ibid.*, para. 120. ¹³⁰ *EC – Biotech*, *supra* n. 79, para. 7.88. ¹³¹ *Ibid.*, paras. 7.89 and 7.90.

¹³² Agreement on Technical Barriers to Trade, 15 April 1994, 1868 UNTS 120 (*‘TBT Agreement’*).

¹³³ *Ibid.*, Art. 2(5).

¹³⁴ See SPS Agreement, *supra* n. 121, Arts. 2(2) (for the requirement) and 3(2) (for the presumption).

A, Section 3 of the SPS Agreement refers to the standards, guidelines and recommendations of the Codex Alimentarius Commission (for food safety), those of the International Office for Epizootics (for animal health) or to those of the International Plant Convention's Secretariat (for plant health). For questions not covered, Section 3(d) refers to 'other relevant international organizations open for membership to all Members'. The TBT Agreement does not explicitly define the term 'international standard' but it refers to the International Standardisation Organisation ('ISO') and notes that international standards are adopted by consensus by bodies open to the relevant organisations of all WTO members.¹³⁵

Further clarification as to the meaning of this term can be derived from a recent ruling of the AB in a resurgence of the *Tuna-dolphin* dispute.¹³⁶ In this case, Mexico complained about the requirements imposed, *inter alia*, by the US Dolphin Protection Consumer Information Act ('DPCIA'), as subsequently interpreted by US Courts, for the labelling of imported tuna as 'dolphin safe'. According to the US regulation, the granting of the 'dolphin safe' label for tuna harvested in the area of the Pacific Ocean where the Mexican fleet operated depended upon the harvesting method used (specifically, tuna harvested by setting purse-nets that might also trap dolphins in that area – but not in other areas – could not be thus certified). Significantly, a treaty to which Mexico and the US were parties (the 'AIDCP') conditioned the granting of the 'dolphin safe' label on other – quantitative – criteria (the level of mortality and serious injury to dolphins, and not on the harvesting method). The dispute led to a finding of breach of Article 2.1 of the TBT Agreement but, for present purposes, the most relevant part is the discussion of what constitutes a 'relevant international standard' under Article 2.4 of this Agreement. The Panel found that the AIDCP could set relevant international standards, but the AB reversed this finding on the grounds that the AIDCP was not an international standardising organisation for purposes of the TBT as it was not open to automatic accession by any WTO member. The decision sets a high threshold for environmental treaty bodies to be considered as capable of adopting TBT-consistent standards.

12.4 Environmental protection and intellectual property rights

12.4.1 Overview

Amartya Sen once noted that it is not necessarily the availability of food but rather the access to it by those in need that must be tackled to prevent famines.¹³⁷ A similar argument could be made for technology. However,

¹³⁵ TBT Agreement, *supra* n. 132, Annex 1, Sections 2 and 4.

¹³⁶ *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, AB Report (16 May 2012), WT/DS381/AB/R.

¹³⁷ See A. Sen, *Poverty and Famines. An Essay on Entitlement and Deprivation* (Oxford University Press, 1981).