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# *Ecology, Economy and the Hague Academy*

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## 1 Introduction

When did an ecological sensibility arise in the Hague Academy courses? What legal instruments did their authors propose for its regulation, and how did such proposals reflect different strands of international legal thought? How did the rise of this ecological sensibility become interwoven with the economy and increasingly regulated through market-based mechanisms instead of more *dirigiste*, public interventions? It is with these questions that I approached the voluminous archive of the Hague Academy. I searched for courses that conveyed an ecological sensibility in their title, manifested in title words like 'environment', 'climate', 'biodiversity', 'pollution' and 'resources'. I did so based on the presumption that such title words signal the respective author's ecological focus. Consequently, I chose to leave aside the 'general courses' with their more panoramic outlook. With a bit of tweaking, I selected 14 courses for review, spread across the 100 years of the Academy's existence, which I then divided into six historical periods. I attributed a theme to each period, as I saw such a theme emerging from the courses themselves, when their authors appeared to be in conversation with each other, using the same legal vocabulary, concepts and frameworks. Conversely, I saw historical breaks, and I arranged the courses accordingly when the legal language and the authors' preoccupations shifted. The subsequent sections set out the result of these endeavours through a close engagement with its lecturers.

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## 2 The 1920s: Ph.C. Jessup, *L' Exploitation des Richesses de la Mer* (1929)

In the late 1920s, an ecological sensibility, strictly speaking, hardly existed in international law. Yet there were concerns over the 'conservation of the riches of the sea' – riches understood as comprising fish, fur seals and whales. As Philip Jessup stressed in the first paragraph of his course, conservation was the 'remedy to the excesses of exploitation'.[1] What conservation meant was rational exploitation – rational as based on the latest scientific findings. Conservation measures (for example, maximum allowable catch per fish species, open and closed seasons, prohibition of certain fishing gear) were informed by the science of biology on the rates of fish reproduction and by that of oceanography, which mapped the migration routes of whales around the globe. The late 1920s was a time when marine sciences were burgeoning, and numerous international congresses were held on geography, hydrography and applied marine zoology – all enthusiastically recounted in Jessup's course.

As for the international law on the 'conservation/exploitation problem', for Jessup it was on a cusp. There was the 'history' of the 1882 and 1887 (Hague) North Sea Conventions, regulating fisheries and liquor traffic and granting ships of states parties police powers to search and visit private fishing vessels on the high seas.[2] There were two 'historical arbitrations' that pointed to the future: (i) the 1893 *Bering Sea Fur Seals* arbitration, which foregrounded the conservation of fur seals as a marine species[3] and (ii) the 1910 *North Atlantic Coast Fisheries* case,[4] which delegated the regulation of conservation of highly profitable fisheries to a US-Canada mixed commission of scientific fishing experts.[5]

Regarding the work of the League of Nations (LoN) on conservation, Jessup was rather sceptical about its codification initiatives; he favoured the collaboration between the LoN's Economic Committee and the Permanent Council for the International Exploration of the Sea (ICES), whose scientific experts recommended conservation measures based on data provided by the fishing industry. For Jessup, the conservation/exploitation problem was not a matter calling for the establishment of general common rules.[6] Rather, satisfactory solutions would have to be found in tailored

1 P. Jessup, 'L'Exploitation des Richesses de la Mer', 29 *Recueil des Cours de l'Académie de Droit International* (*RdC*) (1929) 405, at 405.

2 Convention for Regulating the Police of the North Sea Fisheries, Signed at the Hague, 6 May 1882; Convention Respecting the Liquor Traffic in the North Sea, Signed at the Hague, 16 November 1887. The text of the conventions is available in the United Nations Legislative Series, Book 1: Laws and Regulations on the Regime of the High Seas: (vol. I) (1951), at 179, and 262 respectively.

3 *Award between the United States and the United Kingdom relating to the rights of jurisdiction of United States in the Bering's sea and the preservation of fur seals*, 15 August 1893, United Nations Reports of International Arbitral Awards, Volume XXVIII, at 263–276.

4 Permanent Court of Arbitration, *The North Atlantic Coast Fisheries Case (Great Britain / United States of America)*, 7 September 1910.

5 Jessup, *supra* note 1, at 448–480.

6 *Ibid.*, at 412–415, 488–503.

institutional arrangements with the participation of interested parties, like the LoN/ICES cooperation scheme or the several US-Canada mixed fishery commissions.

## 3 The 1950s–1960s: Competition and Revision – Newcomer States, New-coming Concepts

Ecological sensibilities in the 1950s and 1960s, much like in the 1920s, remained primarily focused on the conservation of (marine) resources. What emerged was the intense competition between 'old states' and 'newcomers' – emerging from the early stages of decolonization or rising competitors like Japan. This competition was coupled with strong claims for the revision of international law, expressed in new legal concepts such as 'special interests' of coastal states, 'fishery zones' or the 'benefit to mankind'.

### A *André Gros*, La Convention sur la Pêche et la Conservation des Ressources Biologiques de la Haute Mer *(1959)*

André Gros was concerned with the alarmingly growing number of coastal states that unilaterally enacted conservation legislation and declared it applicable in marine zones extending beyond territorial waters and well into the high seas – conservation legislation that was often coupled with granting preferential fishing rights to the coastal states' nationals. For Gros, conservation meant organization: '[C]oopération international encadrée [… afin d'] endiguer la marée des législations nationales' and to integrate in a single treaty the earlier ('*fragmentaires*') bilateral and regional fishery agreements.[7] For Gros, at stake was the classical role of law to ensure free and equal access to marine resources by elaborating general rules applicable to all states. Gros saw this classical role under strain, especially when the constant invocation ('*en désespoir de cause*') of the term 'special' by coastal states (the '*nouveau venus*', the '*riverains revendicateurs*') led to strong claims for preferential treatment.[8] To him, the 1958 Geneva Convention seemed a promising regulatory step forward by providing a common framework of general rules and by tying all competing claims and counterclaims to the 'effective guarantee' of a binding dispute settlement mechanism.[9]

### B *Shigeru Oda*, International Law of the Resources of the Sea *(1969)*

Shigeru Oda counter-remarked to Gros' hopes that, 'for the past ten years, this Convention has been all but neglected in practice' because it just 'did not attempt to offer any solution to the real issue' – namely, the 'distribution and allocation' of limited fishery resources.[10] For Oda, conservation simply marked the need to

7 A. Gros, 'La Convention sur la Pêche et la Conservation des Ressources Biologiques de la Haute Mer', 97 *RdC* (1959) 6, at 13–18.

8 *Ibid.*, at 32, 50, 64.

9 Convention on Fishing and Conservation of the Living Resources of the High Seas 1958, 559 UNTS 285.

10 S. Oda, 'International Law of the Resources of the Sea', 127 *RdC* (1969) 363, at 421.

regulate when 'demand exceeds supply'.[11] Earlier theories of the inexhaustibility of marine resources – upon which the freedom of fishing in the high seas was based – had proved to be wrong, and conservation now required appropriate criteria for the fair and equitable distribution of limited resources, informed by some form of economic thinking.

In his course, Oda identified three alternative distributional schemes, all admittedly non-ideal: (i) free competition, access and exploitation under the 'time-honored principle of the freedom of the high seas'; (ii) theories of international management as in a 1967 report by the United Nations (UN) Food and Agriculture Organization (FAO), which would empower an international body to issue licences for high seas fishing and to collect rentals in return; (iii) schemes of 'arbitrary distribution' such as the 'abstention formula' in the 1952 USA-Canada-Japan North Pacific Fisheries Convention that required Japan as a 'newcomer' to abstain from fishing and to respect earlier bilateral conservation arrangements between the USA and Canada.[12]

For Oda, precisely the same dilemmas would arise when discussing the exploration of the mineral resources of the deep seabed. The new concept of the 'benefit to mankind' pointed to an 'international control system' – as opposed to the traditional 'laisser-faire system' for high seas fisheries of free exploitation without restriction except for the control of the flag state – but left unresolved how exploitation licences should be allocated.[13]

Eventually, Oda's course was much more incisive in his analysis of the stakes involved in conservation than Gros' course. It stressed that the 1950s–1960s concern with competition and revision was not a matter of doctrinal intricacies. Instead, each of the regulatory schemes had very real distributional effects, as reflected, for example, in the bargaining that preceded the recognition of new fishery zones in exchange for a narrow territorial sea.

## 4 The 1970s–1980s: The Dialectical Decades – The Great Awakening (Environment) Meets the Great Confrontation (Economy)

In the 1970s and 1980s, ecological sensibilities extended from fish conservation to the whole earth. The 'environment' emerged as a new concept, supplementing traditional earlier understandings focused on development and the exploitation of natural resources. These are dialectical decades, and the four courses selected for this period make up two dialectical pairs: the first on the environment and the second on natural resources.

[11] *Ibid.*, at 402.

[12] *Ibid.*, at 407–421. International Convention between the United States of America, Canada, and Japan for the High Seas Fisheries of the North Pacific Ocean. Signed at Tokyo, on 9 May 1952, 205 UNTS 65.

[13] *Ibid.*, at 465–470.

## A *Richard Bilder*, The Settlement of Disputes in the Field of the International Law of the Environment *(1975)* vis-à-vis *José Sette-Camara*, Pollution of International Rivers *(1984)*

Richard Bilder's and José Sette-Camara's courses illustrate the dialectics of international modes of regulation of the environment. Bilder notes the 'recent surge in ecological awareness' that led to the new concept of international environmental law. However 'amorphous' and 'undefined' it was, it marks a new way of thinking about the environment as a 'unique class of international problems, requiring distinct approaches and collaborative methods of solutions'.[14] His course teems with factual examples: the US-Mexico Colorado river salinity dispute, the Finnish arsenic dumping incident in the South Atlantic Ocean, acid rain in Scandinavia and the ozone problem. Bilder analyses the environmental issues in each problem area that he considers 'artificially divided by national boundaries' (rivers, lakes, oceans, the atmosphere, outer space, Antarctica). Traditional approaches to their regulation seem inadequate to him: environmental issues arose from 'accumulations of damage from many sources over long periods of time affecting many people', and, thus, 'proof of sources, victims, causation and injury may be complex or impossible'. Moreover, traditional legal remedies like monetary compensation may be 'inadequate or come too late'.[15]

For Bilder, the environment called for the 'efforts and the imagination' of international lawyers. He advanced a set of nine principles of 'environmental dispute management': environmental responsibility, diverse approaches, factual knowledge, dispute avoidance, predictability, flexibility, lowest-level solutions, non-legalistic solutions and coordination. Recalling Jessup, Bilder deemed joint commissions to be the most promising mode of regulation, providing a continuing forum for exchanges of information, problem identification, fact-finding, monitoring, environmental assessment, consultation and the formulation of integrated multinational responses: a flexible, forward-looking and dynamic device, informed by technical expertise and definitely functioning on a very different legal logic than fixed legal rules and on-off, *ex post facto* dispute settlement.[16]

In his course, Sette-Camara also notes the 'growing consciousness of environmental problems'.[17] In sharp contrast to Bilder, though, the legal regulation of the environment for Sette-Camara must be examined in accordance with traditional international law. He distrusts geographic concepts like the 'drainage basin' advanced in the 1966 International Law Association's Helsinki Rules and favours the 'political geography' of sovereign boundaries and the concept of the 'river', as defined in the 1815 Final Act of the Congress of Vienna.[18] As for the concept of 'pollution', this

[14] R. Bilder, 'The Settlement of Disputes in the Field of the International Law of the Environment', 144 *RdC* (1975) 145, at 146–148.

[15] *Ibid.*, at 225.

[16] *Ibid.*, at 221–230.

[17] J. Sette-Camara, 'Pollution of International Rivers', 186 *RdC* (1984) 125, at 149.

[18] *Ibid.*, at 128, 133–134, 190. International Law Association, Report of the Fifty Second Conference, The Helsinki Rules on the Uses of the Waters of International Rivers, 1966. Act of the Congress of Vienna,

also had to be approached through a careful examination of state practice and international case law in order to find out if there is a 'recognized rule of customary international law specifically prohibiting pollution'.[19] Sette-Camara tellingly finds no such rule, and he considers that the traditional legal principles of state responsibility are the proper 'basis of the whole spectrum of international measures against pollution'. In this vein, Sette-Camara further discards instruments of legal regulation advanced in forums other than the International Law Commission or the Institut de Droit International (IDI). The Organisation for Economic Co-operation and Development's (OECD) polluter pays principle may have become popular in policy circles, but Sette-Camara cites approvingly the deliberations that led to its eventual non-inclusion in the 1979 IDI resolution, on the ground that this is a principle of 'political economy relating to the distribution of economic costs of measures against pollution and not a legal principle of responsibility'.[20] Eventually, Sette-Camara's course shows affinities with Gros' course in that proposed regulatory instruments not coupled with an 'effective machinery for enforcement' – such as, for instance, the proposed 'human right to environmental protection' – are 'meaningless in the field of law'.[21] Where Bilder had embraced novel approaches, Sette-Camara warns of 'far-fetched concepts' and their intended 'departure from the traditional rules confirmed and consolidated in hundreds of treaties'.[22]

## B *Ian Brownlie*, Legal Status of Natural Resources in International Law *(1979)* vis-à-vis *Mohamed Bennouna*, Le droit international relatif aux matières premières *(1982)*

The courses given by Ian Brownlie and Mohamed Bennouna are animated by the energy crisis, the 1973 oil embargo by the Organisation of the Petroleum-Exporting Countries, the 1974 Declaration on the Establishment of a New International Economic Order (NIEO Declaration)[23] and the legal significance of the 'permanent sovereignty over natural resources'. For Brownlie, these controversies brought about a change in the legal status of natural resources, which now had to be considered separately from territory.[24] This diverged from classical international law that allocated resources by the 'parceling out of territory' and allowed for the 'coexistence of states as separate areas of competence'. In the classical scheme, the access of foreigners to areas under sovereign territory was provided by the 'normal operation of the principle

signed between Austria, France, Great Britain, Portugal, Prussia, Russia, and Sweden (signed 9 June 1815) 64 CTS 453.

19 *Ibid.*, at 160–163.

20 *Ibid.*, at 195–196. For the final text of the IDI resolution, Institut de Droit International, La pollution des fleuves et des lacs et le droit international, Session d'Athènes 1979, 12 Septembre 1979. For the IDI deliberations leading to the final IDI resolutions, Institut de Droit International, Annuaire Volume 58, Tome I, Session d'Athènes 1979, Travaux préparatoires, at 261.

21 *Ibid.*, at 167.

22 *Ibid.*, at 131.

23 Declaration on the Establishment of a New International Economic Order, GA Res. 3201 (S-VI) 1 May 1974.

24 I. Brownlie, 'Legal Status of Natural Resources in International Law (Some Aspects)', 162 *RdC* (1979) 253, at 253.

of consent, as a consequence of treaty privileges and of concession contracts'. Beyond sovereign areas, the principle of open access reigned, embodied in the concept of the freedom of the high seas.[25]

The turbulent 1970s, by contrast, showed that international law needed to become more concerned with the sharing of resources and to reflect on how to put in place arrangements that would justify a fair and just distribution among competing claimants: (i) industrialized countries needed raw materials and claimed access to natural resources located in developing countries, and (ii) developing countries claimed access to capital, technology and know-how possessed by industrialized countries, which was necessary for the exploitation of their natural resources. Such competing claims were articulated against the background of a changing international legal order. Equity was now centre stage in international legal debates: equitable principles gained ground in the case law of the International Court of Justice (ICJ) – most notably, in cases concerning the delimitation of the continental shelf – while new models of 'international public ownership', akin to sharing arrangements, emerged, as in the treaty regime for Antarctica or discussions on the deep seabed authority.[26]

Still, for Brownlie, 'international public ownership' – echoing Oda's doubts about the concept of benefit to mankind – did not necessarily guarantee a fair and just distribution of resources, given that 'collectivist forms' could as well 'maintain and enforce an unsatisfactory economic status quo'.[27] Instead, Brownlie saw that economics provided a much wider spectrum of tools that could be synthesized to construct novel legal arrangements of distribution. In this vein, Brownlie advanced two proposals of distribution informed by economics. First, he suggested adjustments to the market principle as the current 'orthodox basis for [the] availability of resources': such adjustments could include setting a development price for natural resources that takes into account wages and taxation in the developing country; substantial production requirements in concession contracts; 'eminent domain' doctrines for the modification or annulment of concession contracts; and compensation informed by the post-World War II reparation schemes, like payment in redeemable bonds with long-term interest rates. Second, he proposed a 'new system of resource pools', extending approaches adopted in existing commodity agreements and buffer stock arrangements for price stabilization. Here, a list of critical resources could be envisaged and added to those resources already regulated under specific commodity agreements (for example, oil, bauxite, copper, tin, grain). Economic expertise could then contribute to devising a points system of access for registered users based on equitable factors, such as the particular needs of an economy, the needs of a population for food resources or the depletion rate of the specific resource.[28]

Eventually for Brownlie, the controversies of the 1970s about natural resources – and the related matters of access, allocation, distribution and development – simply

[25] *Ibid.*, at 273–274.
[26] *Ibid.*, at 277–278.
[27] *Ibid.*
[28] *Ibid.*, at 278–284.

attested to the fact that this was a time of 'unresolved tensions' and 'countervailing tendencies', putting under strain the very premises of international law itself. The 1970s intensified the dialectics of equality versus preferential principles and of open access versus sovereign control. Brownlie was sceptical of both the 'engineering' potential of classical rules to 'effect distributive justice' and of how equity and equitable principles were changing judicial reasoning by making room for an ever 'wider discretion' and 'contextual' assessment. Instead, he found in 'economic expertise' a much more useful 'reservoir of ideas' of how international law could re-regulate allocation of, access to and distribution of resources.[29]

Bennouna, by contrast, did not consider that a similar change had occurred with regard to the classical international law rule of allocating resources on the basis of sovereign territory. Rather, the territorial principle was reinforced – if not restored – by the 1974 NIEO Declaration, which, in Bennouna's words, had 'interpellated' the existing international law and crystallized the 'permanent sovereignty over natural resources' as *jus cogens*.[30] Yet, like Brownlie, Bennouna recognized that the competing claims for access to resources were closely interlinked. Permanent sovereignty was not sufficient for economic development: some form of 'external collaboration' was required to provide the necessary advanced technology, capital investments and export market outlets.[31] Eventually, Bennouna, similarly to Brownlie, ended up exploring various alternative forms of how such 'external collaboration' could be realized, and he suggested as possible schemes: (i) intergovernmental agreements between states with planned economies that provided for joint production schemes, technical assistance, technology transfer and financial loans, like the 1978 Soviet Union-Morocco agreements on phosphates and fisheries or (ii) the joint enterprises between multiple partners (states, private enterprises, local agents) operating under both international agreements and domestic law (for example, the mineral code of the country of production or the company law of the country where the company has its seat) and managed by joint commissions. As for the regulation of international markets and price stabilization, Bennouna examined the mechanics of commodity agreements operating based on buffer stocks (tin, cacao, natural rubber), export quotas (coffee, sugar) or through multilateral arrangements between buyers and sellers (wheat). Further ways were found in the Second Lomé Convention between the European Economic Community and the African, Caribbean and Pacific (ACP) group of states and, notably, the Stabex system, a compensatory finance scheme to stabilize export earnings from ACP countries.[32]

Significantly, ecological concerns did not figure in Brownlie's and Bennouna's pair of courses. The 'environment' emerged as antagonistic to 'natural resources', and developing countries were apprehensive of environmental policies adversely affecting

[29] *Ibid.*, at 301–310.

[30] M. Bennouna, 'Le Droit International Relatif aux Matières Premières', 177 *RdC* (1982) 113, at 118, 130–134.

[31] *Ibid.*, at 152.

[32] *Ibid.*, at 152–181. The Second ACP-EEC Convention (with protocols, final act and minutes of the Convention). Signed at Lomé on 31 October 1979, 1277 UNTS 3.

their potential for development. When considering how the ecology became increasingly regulated through economic instruments, Brownlie and Bennouna followed Oda who pointed out that conservation simply meant that a resource had to be regulated once it was proved to be limited; to reconsider anew criteria for access, allocation and distribution; and to devise accordingly legal arrangements for the sharing of limited resources. In this vein, this pair of courses reflects the broad range of regulatory ideas circulating in the 1970s, informed by various strands of economics (free market principles, the pricing mechanism, productivity, efficiency as well as market regulation tools, quotas, buffer stocks and production regulation).

## 5 The 1990s: The Ecology/Economy Necessary Complex

In the 1990s, the dialectics of the 1970s and 1980s disappear. Ecological sensibilities in the Hague Academy courses are now decisively thought of as the 'environment' and are unquestionably regulated through economic instruments. A necessary synthesis of the ecology/economy emerges, of which the two courses of this period demonstrate two distinct versions. Moreover, the international legal vocabulary also shifts. Both courses talk about environmental 'treaty regimes' and emphasize 'compliance' over enforcement and dispute settlement. No less, they observe that the nature of international legal obligations has changed: from a reciprocal one, owed to a specific addressee, towards a non-reciprocal one, owed to the treaty regime, an 'obligation of maintenance' that promotes the objectives of the treaty regime and whose breach can be invoked by any party without proof of injury or special interest. Relatedly, international obligations move from substance to process, a move that necessarily influences the shaping of the procedure dealing with non-compliance.

### A *Shinya Murase*, Perspectives from International Economic Law on Transnational Environmental Law Issues *(1995)*

Shinya Murase expresses the necessary synthesis of ecology and economy in the very opening of his course, describing international economic law (IEL) and international environmental law (IEnvL) as 'two sides of the same coin, not only very similar but also intrinsically and integrally linked'.[33] He emphasizes that the environment cannot but be regulated through the economy, and this means that it is IEL that provides models for environmental law-making. Tellingly, this was a lesson of the controversies of the 1970s and 1980s and, in particular, of the outcome of the 1982 UN Convention on the Law of the Sea (UNCLOS) whose Part XI on the deep seabed regime had to be revised by the 1994 Implementation Agreement to take into account 'political and economic changes, including a growing reliance on market principles'.[34] In Murase's words, this lesson meant that 'without adequate

[33] S. Murase, 'Perspectives from International Economic Law on Transnational Environmental Issues', 253 *RdC* (1995) 294, at 294.

[34] Agreement on the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, 1994, 1836 UNTS 3, preamble; UN Convention on the Law of the Sea 1982, 1833 UNTS 3.

considerations for economic principles', no envisaged environmental regime had a 'chance to survive'.[35] To illustrate, when regulatory 'models' were sought to inform the design of the UN Framework Convention on Climate Change, they were not to be provided by UNCLOS but, rather, by the General Agreement on Tariffs and Trade (that is, a model of the continuing process of rounds of negotiations); by the OECD (that is, a 'pledge and review' model providing flexibility to attain concrete commitments by states); or by the Vienna Convention model for the Ozone Layer (that is, a model of a framework convention setting forth broad guiding principles, followed by an opt-out procedure that enabled quick and flexible amendments, so as to cope with the scientific and economic uncertainty inherent in environmental problems).[36] In line with this, Murase noted that legal instruments for the regulation of the environment were moving away from 'command and control' rules and towards the increased use of economic tools, based on the premise that the 'market can be used effectively to provide incentives to guide human behavior'.[37] Such legal/economic instruments varied widely in their format: charges and taxes, border tax adjustment, tradable emission permits, deposit refund systems, financial assistance schemes.

Towards the end of his course, Murase takes a 'daring' step and reflects more broadly on how the synthesis between ecology and economy affects international law in general. He concludes that IEnvL has had an 'enormous impact on the general structure of international law': it has entrenched the 'concept of an international regime', which applied to 'non-territorial but functional spheres' that were 'not rooted in a specific territory or location' but operated on the basis of specific environmental problems, such as the treaty regimes for the ozone layer, climate change, hazardous waste and biodiversity.[38] It was this new concept that changed the nature of international legal obligations towards 'obligations of maintenance' and towards obligations that were more procedural than substantive and that accorded a central role to the secretariats or implementation committees of each treaty regime: these would provide vital services of information gathering and consultation and provide technical and financial assistance for the implementation of obligations. Undeniably, this enormous impact of IEnvL on the general structure of international law showed the success of a line of international legal thought that can be traced to the earlier courses given by Jessup and Bilder and their advocacy of joint commissions as the more promising instrument to regulate the conservation of resources and later, the environment.

[35] Murase, *supra* note 30, at 317.

[36] *Ibid.*, at 317–319; United Nations Framework Convention on Climate Change 1992, 1171 UNTS 107; General Agreement on Tariffs and Trade 1994, 55 UNTS 194; Vienna Convention for the Protection of the Ozone Layer 1985, 1513 UNTS 323.

[37] Murase, *supra* note 30, at 401–408.

[38] *Ibid.*, at 415–423.

## B *Rüdiger Wolfrum*, Means of Ensuring Compliance with and Enforcement of International Environmental Law *(1998)*

Rüdiger Wolfrum, like Murase, begins his course by acknowledging the potential of IEnvL to 'impact' the 'system of compliance and enforcement in international law in general'.[39] He notes how legal instruments for the regulation of the environment grew according to a 'functional approach' by the setting up of specific treaty regimes tailored to each particular environmental problem (for example, long-range transboundary air pollution, transboundary movements of hazardous waste, the ozone layer, wetlands, marine pollution by waste dumping, climate change and biodiversity).[40] How to design a treaty regime and its institutional and procedural setup had come to be of central significance, and two design features stand out: (i) the focus on information and transparency, which provide the rationale for a wide range of devices to monitor compliance (for example, self-reporting by state parties, inspection, data collecting, fact finding and an emerging right of access to environmental information empowering initiatives by non-governmental organizations (NGOs) and individuals to monitor compliance) and (ii) incentive-based instruments to induce compliance, again of a great variety (for example, capacity building, technology transfer and financial assistance through funds).

Wolfrum also examines the more traditional command-and-control mechanisms of rules, countermeasures, state responsibility and dispute settlement. But his course primarily shows how much international environmental law had shifted elsewhere to a complex network of treaty regime secretariats, implementation commissions, NGOs and funding schemes, like the Global Environment Facility, the multilateral fund of the Montreal Protocol, the World Heritage Fund, the International Fund for Plant Genetic Resources and 'debt-for-nature' swaps.[41] Wolfrum's course offers a much wider perspective – compared to Murase's strict focus on international economic law – on the synthesis between ecology and economy, and demonstrates that legal instruments for environmental regulation are necessarily coupled with a wide variety of economic and financial tools.

Looked at from this wider perspective, the controversies of the 1970s–1980s on natural resources have been recast in two aspects. The first concerns the understanding of 'resources'. The Convention on Biological Diversity (CBD) employs 'resources' to refer both to biological and genetic resources, as well as to financial resources and technology transfer. Wolfrum notes that the CBD 'vests the host states of genetic resources with a bargain[ing] power to trade access to genetic resources against access to financial resources or technology'.[42] The second relates to how the earlier rationale underpinning commodity agreements now is applied to environmental components of 'common concern': the 1994 International Tropical Timber Agreement is the first

[39] R. Wolfrum, 'Means of Ensuring Compliance with and Enforcement of International Environmental Law', 272 *RdC* (1998) 25, at 25.

[40] *Ibid.*, at 48.

[41] Montreal Protocol on Substances That Deplete the Ozone Layer 1987, 1522 UNTS 3.

[42] Wolfrum, *supra* note 36, at 147.

commodity agreement to feature a complex institutional structure that combines financial assistance and the sustainable management of forests, aiming to balance not only demands for productivity but also the protection of biodiversity and regeneration capacity.[43] Eventually, for Wolfrum, the Convention on Biological Diversity and the International Tropical Timber Agreement point to a 'new environmental world order' that sees the environment in a 'holistic manner', linking it to 'development, access to resources, intellectual property rights, financial assistance, sharing of benefits'.[44]

## 6 The 2000s: Consolidations and Historical Perspectives

In the 2000s, no new elements appear to be introduced. Two courses, one by Fitzmaurice and the other by Bothe, consolidate the approach devised in the 1990s, with their focus on compliance mechanisms, transparency, information sharing and incentive-based instruments. As is common in consolidation exercises, both courses provide some historical background on the leap from the dialectical decades of the 1970s–1980s to the synthesis between ecology and economy that emerged in the 1990s: Malgosia Fitzmaurice traces how ecological sensibilities became settled in international law, taking stock of doctrinal controversies that had dominated the courses given by Bilder and Sette-Camara. Michael Bothe puts into broader historical perspective the dilemmas that had concerned Brownlie and Bennouna and revisits the role of international law in regulating access to resources and their allocation and distribution.

### A *Malgosia Fitzmaurice*, International Protection of the Environment *(2001)*

Fitzmaurice's course reads like a fully fledged textbook of international environmental law, following the typical exposition of historical background, sources, state responsibility and liability, general principles of the modern preventive approach (for example, precautionary principle, environmental impact assessment, due diligence), links with human rights law, dispute avoidance techniques (that is, compliance mechanisms) and dispute settlement (that is, the jurisprudence of the ICJ, the International Tribunal for the Law of the Sea and the North American Free Trade Agreement). However, Fitzmaurice's analysis is less an attempt to reflect on the import of the new modes of legal regulation that are tailored to environmental problems than an examination of whether such modes fit within the traditional understanding of international law that focuses on states, rules and international courts. In her legal thought, she shares affinities with Gros and regrets the fragmentation of IEnvL as a 'weakening factor in enforcement'.[45] Similarly to Sette-Camara, a significant part of her course examines whether new concepts and principles have attained the status of

[43] International Tropical Timber Agreement 1994, 1955 UNTS 81.
[44] Wolfrum, *supra* note 36, at 116; Convention on Biological Diversity 1992, 1760 UNTS 79.
[45] M. Fitzmaurice, 'International Protection of the Environment', 293 *RdC* (2001) 21, at 63.

customary law (which Fitzmaurice often denies, for example because principles lack precise legal content).

Still, Fitzmaurice acknowledges that, after World War II, equity and fairness have become important factors in the allocation of scarce resources. She also admits that the 1972 Stockholm Declaration was visionary in launching a 'novel manner of thinking' of environmental protection as 'inexorably linked' to economic development.[46] The concept of sustainable development (SD) expresses this linkage and 'embodies fairness in environmental law', given that its 'cornerstone are financial assistance and transfer of technology'. For Fitzmaurice, though, this novel manner of thinking does not entail a corresponding change to the traditional understanding of law. As she writes, given that SD is a 'very practical concept', a 'purely legalistic analyzing of the character of SD is not the right approach'. SD is a 'multidisciplinary concept' with imports from 'economics, management, the legal profession, and the health profession', and, consequently, 'lawyers do not play the leading role'.[47] Arguably, Fitzmaurice's course is very distant from Bilder's – or even from Jessup's – perception of the international lawyer as precisely leading the multidisciplinary enterprise of devising new modes of regulation and where it is, to cite from Bilder, the 'responsibility' of the lawyer to 'turn efforts and imagination to the search for innovative and workable solutions to these complex and difficult environmental questions'.[48]

## B *Michael Bothe*, Environment, Development, Resources *(2005)*

Bothe shares certain doctrinal concerns with Fitzmaurice, especially the question whether IEnvL has challenged the 'traditional theory of sources of international law' because of its peculiar 'stepwise' development of specific treaty regimes per environmental problem.[49] Yet he admits that the distinctly 'multi-layered' governance of IEnvL serves 'useful purposes' and sees definite advantages in regulating the environment through a 'mix' of flexible instruments, procedural commitments, margins of discretion and the involvement of NGOs, civil society, private enterprises and other stakeholders in environmental decision-making.[50]

It is true that IEnvL launched a new type of 'legal logic', which focuses on solving problems rather than using sanctions.[51] As Bothe stresses, both the Montreal Protocol and the Kyoto Protocol demonstrated the importance of technical and/or financial assistance as a constructive form of ensuring compliance.[52] This legal logic leads him to approach the three aspects of his course (environment, resources and development) as a single *problématique*: all three share the attribute of scarcity, thus leading to the 'perennial problem' – which he views, contrary to Fitzmaurice, as a legal problem – of

[46] *Ibid.*, at 34; Stockholm Declaration on the Human Environment 1972, 11 ILM 1416 (1972).
[47] Fitzmaurice, *supra* note 42, at 60–62.
[48] Bilder, *supra* note 12, at 234.
[49] M. Bothe, 'Environment, Development, Resources', 318 *RdC* (2005) 349, at 428.
[50] *Ibid.*, at 429.
[51] *Ibid.*, at 442.
[52] Montreal Protocol, *supra* note 38; Kyoto Protocol to the United Nations Framework Convention on Climate Change 1997, 2303 UNTS 162.

how to ensure a just and fair distribution.[53] From this angle, environmental commitments are necessarily linked to transfer schemes in favour of developing countries, and equity can be recast as 'compensatory inequality'.[54] For Bothe – following a line of the inquiry that started with Oda, which was then taken up in a more heated exchange between Brownlie and Bennouna – the traditional approach of allocating resources based on territory and sovereign jurisdiction was no longer satisfactory. Resources that lay beyond national jurisdiction (like fish or deep seabed minerals) necessitated some form of international resource administration. As ecology and the economy were becoming global, so too were resources under national jurisdiction, because of 'exploitation regimes involving foreign investment', because they were sold on the world market (like oil or the several commodity agreements) or because their use produced global externalities – such as, for instance, the role of forests as carbon sinks. Hence, there was the tendency in the 2000s towards an 'international regime for sustainable use', with the exemplary regimes of the CBD and the International Tropic Timber Agreement.[55]

Bothe also considered the increased interweaving of ecological regulation with market-based economic instruments (as opposed to market regulatory instruments under earlier commodity agreements): for him, this shift reflected the 'current regulatory philosophy to leave the problem of access and distribution to market forces', with admittedly only 'marginal attempts to correct' the results.[56] But what mainly transpires from Bothe's course – and is a valid interrogation – is that, undeniably, there are competing social values, calling for compromises, weighing the losses and gains and balancing the conflicting interests, either through economic tools or through the flexibility of compliance procedures, enhanced by transfer schemes for finance and technology or both.

## 7 The 2020s: A Quest for New Ways of Working with International Law

In the more recent Hague Academy lectures, the dilemmas and controversies of old remain in view. However, they no longer dominate. Rather, what is distinctive in the three courses of the period of the early 2020s is that each, in its own different style, seeks new ways of thinking about the relationship between ecology and the economy.

### A *Jutta Brunnée*, Procedure and Substance in International Environmental Law *(2020)*

Jutta Brunnée takes up the critique that IEnvL has 'proceduralized' international law – a critique that would resonate with the international legal thought evidenced in the

[53] Bothe, *supra* note 46, at 455.
[54] *Ibid.*, at 466.
[55] *Ibid.*, at 354–364.
[56] *Ibid.*, at 506.

courses of Gros, Sette-Camara and Fitzmaurice. Brunnée focuses on the rule of harm prevention as a case study to illustrate the stakes involved. She elaborates how in customary law, through the due diligence standard, harm prevention is indeed an obligation of conduct, often defined by procedural obligations. In specific environmental treaty regimes, she shows that procedural and substantive obligations 'complement and reinforce one another but remain legally distinct'.[57] In the Paris Agreement, with its 'nationally determined contributions' (NDCs), there is indeed a 'displacement of substance' as 'mitigation-related obligations of result' give way to 'an obligation of conduct, complemented by non-binding substantive parameters'.[58] Arguably, such a phrasing would be extremely alarming to that current of international legal thought that prescribes precision, clarity and consistency. But, as Brunnée remarks, the 'proceduralization' critique eventually hinges on 'one's understanding of international law'. The Paris Agreement may indeed 'raise the spectre of deformalization' and the 'turn to experts to manage problems, rather than engage with legal issues'.[59] Yet, as Brunnée emphasizes, it remains unclear 'why this feature should spell the undoing of law', especially if one reads Brunnée's remark while bearing in mind the role of the international lawyer envisaged in the courses of Jessup and Bilder – namely, to devise 'innovative and workable solutions' for pressing world problems.[60] In this line of thinking, Brunnée is right to observe in her concluding phrase – in a course that can be read as a thorough defence of procedure – that, in our current world of 'deep diversity of outlooks and priorities, agreement on procedural rules for coping with difference is a prerequisite for working towards substance, and, arguably, valuable in and of itself'.[61]

## B *Lavanya Rajamani*, Innovation and Experimentation in the International Climate Change Regime *(2020)*

Lavanya Rajamani's course takes as its starting premise that IEnvL has always 'challenged the conceptual boundaries of international law'.[62] As her very title indicates, her course explores the various facets of innovation and experimentation in the international climate change regime. She reveals how the regime was negotiated in various forums, programmes, mechanisms and dedicated spaces, even if she is wary of 'process as a substitute for action' and wonders whether the technique to 'diffuse the tension through expert roundtable workshops of information sharing' might risk 'depoliticizing' through 'socialization' controversial issues such as the historical responsibility for global emissions by developed countries or the mitigation commitments to reduce emissions by developing countries.[63] Still, her course, like Brunnée's,

[57] J. Brunnée, 'Procedure and Substance in International Environmental Law', 405 *RdC* (2020) 87, at 224.
[58] *Ibid.*, at 228; Paris Agreement on Climate Change, 2015, 3156 UNTS 79.
[59] Brunnée, *supra* note 54, at 228–229.
[60] Bilder, *supra* note 12, at 234.
[61] Brunnée, *supra* note 54, at 230.
[62] L. Rajamani, 'Innovation and Experimentation in the International Climate Change Regime', 404 *RdC* (2020) 23, at 24.
[63] *Ibid.*, at 53–58.

is an attempt to theorize the new legality and to provide a new lens to reflect on the NDCs as a 'continuum of legality' and a 'complex, inter-locking and mutually supporting relationship between law, soft law, and non-law instruments and provisions in the climate change regime'.[64]

Rajamani defends that there are 'varying degrees of normativity' in the climate change regime, and, yet, it is precisely this 'normative uncertainty and conceptual ambiguity' that has provided 'fertile ground for innovation and experimentation and will ultimately drive change in international law more broadly'.[65] This is very different from more traditional understandings of international law and modes of regulation of the ecology. But, as Rajamani points out, the NDCs create the conditions necessary for 'forward movement', towards an increasing 'level of ambition'.[66] More ambitious action is also facilitated by a 'green' climate fund, while climate litigation 'performs a powerful narrative-building function'.[67] However unusual – or even alien – the language of this course may have sounded to many of the authors of the more traditional courses discussed in this review, it cannot be denied that the Paris Agreement is a universal agreement and its Conferences of the Parties have become major moments of global governance at which the most relevant contemporary issues are debated: just transition and labour, food and agriculture, distribution of financial obligations, the reconfiguration of market-based mechanisms (for example, through the environmental, social and corporate governance), historical responsibility for emissions, racial inequality and climate justice.

## C *Sandrine Maljean-Dubois*, Le droit international de la biodiversité *(2020)*

Sandrine Maljean-Dubois's course on 'the international law of biodiversity' is of a more traditional orientation, similar in tone and structure to Fitzmaurice's course. Maljean-Dubois, likewise, expounds thoroughly on the various treaty regimes that pertain to biodiversity and their evolution, content and means for dispute settlement and compliance. Even within the confines of a traditional understanding of international law though, Maljean-Dubois does interrogate the impact of the new concept of 'biodiversity' on how international law understands natural resources and on how talking about 'biodiversity' instead of 'natural resources' influences modes of legal regulation.[68] Questions of distribution, access and allocation come inevitably to the fore, as Maljean-Dubois tries to grasp the precise legal content of benefit sharing, financial schemes, technology transfer and the import of the Nagoya Protocol, which concretizes the third objective of the CBD – namely, the 'fair and equitable sharing of the benefits arising out of the utilization of genetic resources'.[69] Ultimately,

64 *Ibid.*, at 104.
65 *Ibid.*, at 105.
66 *Ibid.*, at 194.
67 *Ibid.*, at 211–215.
68 S. Maljean-Dubois, 'Le droit international de la biodiversité', 407 *RdC* (2020) 147, at 147–153.
69 *Ibid.*, at 450–458; Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization 2014, 3008 UNTS 3.

Maljean-Dubois identifies four ways in which international law has 'valorized the representation' of biodiversity, starting from (i) an 'instrumental', strictly utilitarian approach, as in Jessup's early course on the conservation of fish stocks, whereby conservation was aimed at safeguarding a flourishing fishing industry, to (ii) the 'patrimonial value approach' as in the 1972 World Heritage Convention or in the FAO's 1983 resolution on phytogenetic resources.[70] This was supplanted by (iii) the 'intrinsic value approach', as in the 1982 World Charter for Nature,[71] whereby 'every form of life is unique, warranting respect regardless of its worth to man'; and (iv) the current 'ecosystem service approach', which recognizes the 'economic value of ecosystems and biodiversity and the fair and equitable sharing of this economic value with the custodians of biodiversity' (Nagoya Protocol), but, according to Maljean-Dubois, it marks a 'return to instrumentalization'. She regrets the failure of international law to set a 'hierarchy' between the different values and the 'pragmatism of the economic valuation of biodiversity', which has led to a 'double conjunction of the environment/economy and of North/South' and underlies the 'political success of the approach'.[72]

## 8 Concluding Remarks

Ecological sensibilities, however rudimentary, were present in Jessup's early course of 1929 and already interwoven with the economy and economic thinking. As many Hague Academy lecturers have pointed out over the years – Bilder, Wolfrum, Bothe, Brunnée, Rajamani and Maljean-Dubois – ecology has proved to be a particularly innovative field for new modes of regulation that have challenged traditional understandings of international law. Often, such innovation has meant regulating the ecology through economic instruments. Significantly, however – and what I hope this review has showed – such economic instruments were of a great variety and capable of accommodating broader social concerns about fairness and climate justice (such as, for example, in the courses of Brownlie, Bennouna, Wolfrum and Bothe or in the most recent ones by Brunnée and Rajamani). The 2020s are again a decade of revision and reflection about constructive ways forward. It is hoped that this article's contribution to the 'general reservoir of ideas and solutions' (to quote Brownlie)[73] can be read as an invitation to think about international law as a more open-ended, flexible and creative tool.

[70] Convention for the Protection of the World Cultural and Natural Heritage 1972, 1037 UNTS 151. FAO, Twenty-second Session of the Conference (Rome, 5-23 November 1983), Resolution 8/83 International Undertaking on Plant Genetic Resources, adopted 23 November 1983, available at https://www.fao.org/unfao/govbodies/gsbhome/conference/resolutions/1983/en/.

[71] World Charter for Nature 1982, GA Res. 37/7, 28 October 1982.

[72] Maljean-Dubois, *supra* note 65, at 267–285.

[73] Brownlie, *supra* note 21, at 288.