

The significance of the default

The significance of the default

A study in environmental law methodology with emphasis
on ecological sustainability and international biodiversity law

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Abstract

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The legal operationalisation of ecological sustainability concerns all levels of legal control. The ensuring of full biodiversity is an indispensable component of ecological sustainability. At the same time, biodiversity losses continue to be a serious problem in many regions of the world. The international community has responded to this dilemma by strengthening international biodiversity law as well as agreeing upon a particular biodiversity target. The aim is to reduce biodiversity losses at all levels by the year 2010. From a legal point of view this seems unproblematic. When, however, the international legal order is viewed as an overarching control system, composed of several multi-levelled and interacting international and national legal systems (controlling programs), questions on whether the order can actually work for biodiversity seem inevitable.

By applying and developing further environmental law methodology (ELM) the study argues that some fundamental principles of the international legal order are either diminishing or counteracting the possible realisation of ecological sustainability and the 2010 biodiversity target of halting and reversing the biodiversity loss. This, as will be argued, is due to rule of law and to how the default actually functions in the international legal system. In line with the above, the prime objective of the study is to develop and elaborate a theory framework on which the theory of the significance of the default is based; second, to evaluate and discuss some fundamental principles of the international legal order and international biodiversity law in the light of the theory, and finally to evaluate and discuss the possible realisation of ecological sustainability and the 2010 target. The study's method is to a certain extent pluralistic, but it is basically an adapted version of ELM.

Keywords: Environmental law, international law, international biodiversity law, environmental law methodology, the default of law.

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*In memory of my late parents
Ingibjörg Sigurðardóttir and Jóhann Ágúst Gunnarsson*

Foreword

My doctoral thesis is here finally presented. Its preparation took longer than I had anticipated but I finally managed to prioritise my different responsibilities and finalise the text in the autumn of 2008. The preparations began in 1999 when I lived in Uppsala, but after I moved back to Iceland in late 2001 other responsibilities took over. I also had the luck to become a tenured teacher of environmental law at the Faculty of Law of the University of Iceland. This was an opportunity which I simply could not let go by due to the scarcity of permanent university positions. I would like to thank my supervisor, Professor Staffan Westerlund for all his patience, for teaching me to take nothing for granted; for making me aware that the mainstream research methods are not necessarily the ones providing the freshest perspectives or shedding new light on how law actually functions for biodiversity in nature or on the legal operationalisation of ecological sustainability. I would also like to thank my assistant supervisor, Professor Åke Frändberg. I also owe a debt of gratitude to Uppsala University for providing me with a first class education. Being a single parent, and usually broke, I could not have gotten by without the help and support of my sisters Erla Björg and Berglind who helped me get through during this long time. And finally, I hope that my son Ágúst Ingi has not suffered permanent damage due to the stress that this work has had on our family life, particularly during the last twelve months.

Reykjavík, January 14, 2009

Aðalheiður Jóhannsdóttir

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Abbreviations

BAT	Best available techniques
BEP	Best environmental practice
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COP (CP)	Conference of the Parties
CSD	Commission on Sustainable Development
CTE	Committee on Trade and the Environment
DSB	Dispute Settlement Body
DSU	Rules and Procedures Governing the Settlement of Disputes
EC	European Community
ECOSOC	Economic and Social Council
EEZ	Exclusive Economic Zone
EIA	Environmental impact assessment
ELM	Environmental law methodology
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GATT	General Agreement on Tariffs and Trade
HIPPO	Habitat destruction, invasive species, pollution, population and over-harvesting
IAEA	International Atomic Energy Agency
ICJ	International Court of Justice
IGO	Intergovernmental organisation
ILC	International Law Commission
ILM	International Legal Material
ITLOS	International Tribunal for the Law of the Sea
IUCN	World Conservation Union (International Union for conservation of Nature)
OSPAR	Convention for the Protection of the Marine Environment of the North East Atlantic
PCIJ	Permanent Court of International Justice
Res.	Resolution

RECIEL	Review of European Community & International Law
SEA	Strategic Environmental assessment
TAC	Total Allowable Catch (quotas)
TEC	Treaty Establishing the European Community
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on the Law of the Sea
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNGA	United Nations General Assembly
UNTS	United Nations Treaty Series
US	United States of America
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization

Introduction

Legal operationalisation of international objectives

“Respect for nature. Prudence must be shown in the management of all living species and natural resources, in accordance with the precepts of sustainable development. Only in this way can the immeasurable riches provided to us by nature be preserved and passed on to our descendants. The current unsustainable patterns of production and consumption must be changed in the interest of our future welfare and that of our descendants.”¹

Since the emergence of sustainable development policies more than two decades ago, it has been clear that law, international, regional, national and local, would play a decisive role in the legal operationalisation of a challenging, multi-faceted, multi-levelled and multi-generational paradigm.² Sentiments such as that “[h]uman laws must be reformulated to keep human activities in harmony with the unchanging and universal laws of nature”³ have become standards. Moreover, the Johannesburg Plan of Implementation is clear on the issue that sustainable development should take place *within* the carrying capacity of ecosystems and thus supporting ecological sustain-

¹ United Nations Millennium Declaration (2000), (UN Millennium Declaration), UNGA Res. A/RES/55/2. Item five, paragraph 6 of Part I.

² See *inter alia* the Brundtland Report 1987, chapter 12: *Towards Common Action: Proposals for institutional and legal change*, pp. 308-347, the Rio Declaration on Environment and Development (1992) as a whole, Report of the United Nations Conference on Environment and Development (UNCED), A/CONF.151/26 (Vol. I), (the Rio Declaration), Chapter 39 of Agenda 21 titled: *International Legal Instruments and Mechanisms*, Report of the United Nations Conference on Environment and Development, A/CONF. 151/26 (Vol. III), (cited as Agenda 21), the Johannesburg Declaration on Sustainable Development (2002), Report of the World Summit on Sustainable Development (WSSD), A/CONF.199/20, (the Johannesburg Declaration), particularly its item 32, and Johannesburg Plan of Implementation of the World Summit on Sustainable Development (2002), *ibid.*, referred to as the Johannesburg Plan of Implementation, particularly its chapter XI. See also Decleris 2000, p. 7.

³ Brundtland Report 1987, p. 330.

ability.⁴ The status of biodiversity⁵ in nature plays a fundamental part in the realisation of ecological sustainability.

Recent status reports and policy documents indicate that the necessary changes have not materialised although some battles have certainly been won.⁶ The international response has been to agree to effectively reduce biodiversity losses and to achieve by 2010 a significant reduction of the current rate.⁷ The Hague Ministerial Declaration of 2002 goes beyond this stating the objective to stop and reverse the current losses at all levels by the year 2010.⁸ Both of these objectives, that is to effectively reduce biodiversity losses and to stop and reverse the current situation, will be referred to as the 2010 target. Since around 90% of all states are parties to the Convention on Biological Diversity⁹ (CBD) the 2010 target has a considerable legal weight.¹⁰

⁴ The Johannesburg Plan of Implementation, paragraph 15.

⁵ The terms *biological diversity* and *biodiversity* are used interchangeably and generally accepted as having the same meaning. Wilson 1994, p. 377; Glowka, *et al.* 1994, p. 1 *et seq.*

⁶ See, *inter alia*, the Sixth Community Environment Action Programme: *Our future, our choice*, OJ L 242, 10.9.2002, pp. 1-15, (Cited as the Sixth Action Programme), and Climate Change 2007, p. 1, *et seq.* See also official statistics published by the Food and Agricultural Organisation of the United Nations (FAO), which state that world fisheries (marine) has been stable for the last five years or so, at around 85 million tonnes per year, but has grown considerably from 1950, or from 20 million tonnes per year. The State of World Fisheries and Aquaculture 2006, particularly p. 3, table 1, and figure 3, p. 6, and also p. 7, confirming FAO's "earlier observations that the maximum wild capture fishery potential from the world's oceans has probably been reached and reinforces the calls for more cautious and effective fisheries management to rebuild depleted stocks and prevent the decline of those being exploited at or close to their maximum potential."

⁷ CBD COP Decision VI/26 (2002), items 2 and 11, Annex.

⁸ The Hague Ministerial Declaration (2002).

⁹ 31 ILM 818 (1992). The CBD entered into force on December 29. Its preparation began in the early 1980s when the World Conservation Union (IUCN) and later as the IUCN Environmental Law Centre began to promote, and later to prepare particular articles meant to be included in a convention on biodiversity. In 1987 the United Nations Environment Programme's (UNEP) Governing Council (in line with UNEP decision no. 14/26) organized an expert groups meeting, referred to as the Ad Hoc Working Group of Experts on Biological Diversity. Another one the *Ad Hoc* Working Group of Legal and Technical Experts, whose task was to structure an international convention for the conservation and sustainable use of biodiversity, was organised in 1990. During 1991-1992 an Intergovernmental Negotiating Committee prepared and finalized the CBD before the UNCED, held in Rio de Janeiro in June 1992. The Convention was open for signature during the Summit. See further on CBD's preparation, *inter alia*, Koester 1997, pp. 205-258; Sands 203, pp. 515-516, and *e.g.* Biodiversity Handbook 2005, pp. xxiii-xxxiv.

¹⁰ See further the Hague Ministerial Declaration (2002). See also CBD COP Decision VI/26 (2002) Strategic Plan for the Convention on Biological Diversity; CBD COP Decision VI/28 (2002) Multi-year programme of work of the Conference of the Parties up to 2010; CBD COP Decision VII/30 (2004) Strategic Plan: further evaluation of

Contracting parties to the CBD have furthermore agreed upon several strategies and approaches in order to support the realisation of the 2010 target, including the ecosystem approach, adaptive management and precautionary approaches.¹¹ The parties to the CBD are apparently not optimistic. During the 2008 meeting of the Conference of the Parties to the CBD, several new decisions were agreed upon including a decision on a new multi-year programme for the period 2011-2022.¹²

An identical objective to the 2010 target has been agreed upon on for implementation at regional level, such as within the European Union (EU), for example.¹³

It seems easier, however, to pinpoint which activities will eventually contribute to unsustainability than to single out the ones that will not. The former will continue to foster further environmental degradation, including biodiversity losses, rather than supporting ecological sustainability¹⁴ if, as I will be arguing, sound information on how law actually works for biodiversity is not made available.

Obviously more than new legislation and new international treaties are needed to safeguard and operationalise the new paradigm. Legal *orders* as such have to be developed. And it is necessary to ensure that none of their components are so structured as to halt or counteract the overall objective of ecological sustainability and the realisation of the 2010 target.

process; CBD COP Decision VIII/15 (2006) Framework for monitoring implementation of the achievement of the 2010 target and integration of targets into the thematic programmes of work; CBD COP Decision IX/8 (2008) Review of implementation of goals 2 and 3 of the Strategic Plan, and CBD COP Decision IX/9 (2008) Process for the revision of the Strategic Plan. See also one of the Millennium Goals, Goal 7, on ensuring environmental sustainability. Finally the Millennium Development Goals Report 2007, p. 30.

¹¹ See; *inter alia*, CBD COP Decision V/7 (2000), CBD COP Decision VI/23 (2002) and CBD COP Decision VII/11 (2004).

¹² See further: CBD COP Decision IX/8 (2008) and Decision IX/9 (2008).

¹³ Cf. the Sixth Action Programme, pp. 1-15, where, in line with its Article 2(2), the overall aim is to protect, conserve, restore and develop the functioning of natural system, habitats, wild flora and fauna with the aim of halting desertification and the loss of biodiversity, both within the EU and on a global scale. More precisely, the objective is to halt biodiversity decline by the year 2010 as stipulated in Article 6(1). See also a Communication from the Commission Halting the Loss of Biodiversity by 2010 – and beyond sustaining ecosystem services for human well-being. COM(2006)216 final.

¹⁴ See further chapter 6, on sustainable development.

However, what is ecological sustainability? Furthermore, what is legal operationalisation?

In this study the following definition of ecological sustainability is accepted:

“the situations and conditions in the biosphere that are sufficient for sustaining mankind for innumerable generations to come with reliable and safe resilience, including full biodiversity.”¹⁵

Ecological sustainability is furthermore viewed by the study as an overarching environmental *goal* that needs to be reached and *maintained* presently and in the future. I will be arguing that ecological sustainability is still struggling to become part of the international legal order.¹⁶ The causes of this struggle are several of course. The ones that I deem of interest for this study relate to (1) some principles of the international legal order, and (2) particular features of international biodiversity law including the legal situation when no particular treaties have been agreed on.

In terms of this study, to make something legally operational means that environmental objectives and goals have been transformed into enforceable linear law. More precisely, it means that goals have been formulated and elaborated by being broken down into sub-goals (as many as necessary), and that the substance of enforceable law has been structured accordingly to accommodate this.

This would usually be done by defining the necessary actions needed in order to reach the goal by means of enforceable law (rules, standards). As a rule, the different kinds of rules of conduct would be used for these purposes.¹⁷ Since the law forms legal systems, the second feature of legal operationalisation is to ensure that there is nothing within those systems that stand in the way of legal operationalisation of environmental goals.

¹⁵ Westerlund 2007, p. 635.

¹⁶ The term *legal order* is used in the study interchangeably with another familiar term of law, or *legal system*. This usage is in line with T. Eckhoff and N. K. Sundby's usage, Eckhoff/Sundby 1991, p. 200, as well as Westerlund's approach, particularly Westerlund 2007, p. 413, and note no. 276. However, Å. Frändberg argues that there are circumstances where the two terms cannot be considered synonymous. See further Frändberg 1986, pp. 323-324, where he points out that it would be unusual to use the expression *valid legal order* (in Swedish: "gällande rättsordningar").

¹⁷ Westerlund 2007, pp. 8-9, and 157-159. See also Gipperth 1999, p. 13, and 39-49.

Some important principles

In relation to (1), or the principles, it is of interest precisely how they function within the international legal order. In that connection the significance of the default will be introduced and elaborated on in chapter 7. In computer terminology, the term *default* refers to a preset option. When I use the term *default* or *default law* in this study, it is to indicate the following legal situations: first, the status of international law in cases where no international treaties have been accepted in given field of international law; second, international law in a particular context or in a particular sub-system, when there is no *lex specialis* available.¹⁸ The core of the theory of the significance of the default relates to the fact that international law is governed by rule of law. Consequently, and as a general rule, though there are exceptions of course, states are free to undertake any action or activity within their jurisdiction unless they have explicitly accepted the need to restrict this freedom. The fundamental principles that are of particular interests for this study are both enshrined in Principle 2 of the Rio Declaration, first, the sovereign right of states to use their natural resources, and second, the obligation of states to prevent environmental damage.

I will be arguing that the above principles are ill-suited to the guarding and controlling of the complex global environmental problems that are currently threatening mankind's future on Earth. Within this frame, an emphasis will be placed on the legal operationalisation of ecological sustainability mainly by theorising international biodiversity law. It seems that states can freely, at the least with little constraints, agree upon treaties that support environmental degradation as I will be arguing at a later stage. Public international law is after all a strange creature that builds upon a few principles of Roman civil law including the fundamental principle of contract law or *pacta sunt servanda*.

As I stated above I will be placing an emphasis on two fundamental principles. However, the third principle will also be given attention, or the one of state responsibility. The reason is that if states fail to prevent environmental damage then state responsibility may be triggered.

¹⁸ See further: Westerlund 2007, p. 634.

This problem orientation may indicate that a state *vis-à-vis* state situation will be the main focus of the study. This will, in fact, be the case from time to time. On the other hand, I am equally interested in the treaty-making that has been going on over the last three decades and in seeing whether it can respond to the core needs of ecological sustainability. States have actually accepted various international obligations that can only be made legally operational by changing or enacting new national legislation. Only if this actually comes to pass can the behaviour of individuals and legal entities be altered, and, with them, eventually, also the status of biodiversity in nature and the furtherance of ecological sustainability.

The importance of biodiversity in nature

In relation to (2), or particular features of international biodiversity law, the status of biodiversity in nature plays a fundamental part in the realisation of ecological sustainability. That is the reason why the study focuses on the future of biodiversity in nature by theorising on international biodiversity law *and* particular principles of public international law.

The widely accepted CBD affirms that the conservation of biodiversity is a common concern of humankind, but strangely enough *not* a common natural heritage of humankind. Moreover, the international community has deemed it necessary to introduce particular biodiversity targets as previously mentioned. This indicates that the thresholds of irreversibility may already have been reached. Some even argue that the earth's regenerative capacity was reached around 1980 and that by 1999 the capacity had been exceeded by 20 percent.¹⁹ Consequently, the order of the day is to reduce biodiversity losses at all levels by 2010,²⁰ but rich and relatively stable biodiversity is one of the fundamentals of ecological sustainability just as it is fundamental to the future of human existence.

¹⁹ See further: Brown 2005, p. 37.

²⁰ Hague Ministerial Declaration (2002). See also CBD COP Decision VI/26 (2002), and CBD COP Decision VI/28 (2002). See furthermore one of the Millennium Goals, Goal 7, on ensuring environmental sustainability. Millennium Development Goals Report 2007, pp. 22-23, and *passim*.

The biodiversity situation can be reflected by using the following model.²¹

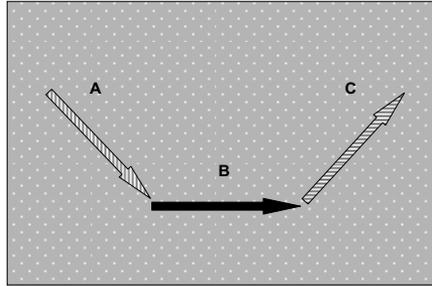


Figure 1

Arrow A illustrates the current deterioration pattern of the global biodiversity loss that has taken place legally under the international legal order. B reflects a minimum standard or the situation that should be reached if the objective of stopping biodiversity losses at all levels by 2010 becomes reality. Finally, arrow C illustrates the optimum situation or when the biodiversity situation has been reversed, as the 2010 target spells out, and the furtherance of the biodiversity evolution.

Scientists may disagree on how to define individual species, sub-species, etc.,²² but that fact by itself does not alter the importance of biodiversity. After all biodiversity is about more than just species and certainly about more than just particular species of high economic value or those that appeal to the sentimental side of human beings. When tied to law and how law as an instrument can contribute to the protection of biodiversity, the biosphere as a whole including all its life forms is the general target, as K. Kokko rightfully points out.²³

Though the size and location of ecosystems may vary, they should nonetheless be viewed as components of a mega system, and therefore requiring a systemic approach with regard to law and legal orders. Thus, as I will be arguing, the emphasising of individual treaties

²¹ The model is identical to Westerlund's figure 5 in Westerlund 2007, p. 126.

²² George/Mayden 2005, p. 369 *et seq.*

²³ Kokko 2004, p. 158.

relating to biodiversity in order to establish whether the international legal order is working for biodiversity in nature, matches neither the nature of biodiversity nor ecological sustainability.

The study's basic objectives

The study takes as its point of departure in the hypothesis that some overriding fundamental principles of international law are either counteracting or otherwise diminishing the possible realisation of ecological sustainability, but, as previously mentioned, the status of biodiversity has a decisive effect on the realisation of ecological sustainability.

Thus, the study has three basic objectives:

- (1) To elaborate theoretical framework, external legal theory,²⁴ on which the theory of the default significance is based. Part I of the study provides and elaborates on this background.
- (2) To evaluate and discuss some fundamental principles of the international legal order and international biodiversity law in the light of the aforementioned theoretical framework.
- (3) To evaluate and discuss the possible realisation of ecological sustainability and the 2010 target in the light of the theory.

Methodological approach

The method applied in the study is environmental law methodology (ELM), which is particularly tailored to serve international law research as well as the present study's objectives.

²⁴ The study relies upon "external legal theory" to make a distinction between legal theories, or "internal legal theories", covering fundamental and abstract issues such as the philosophical foundation of law, the concept of law, hierarchy of the sources, theories on interpretation, etc., and the ones which are chosen or developed for particular branches of law or research projects in law.

The essence of the study's method thus lies in its systemic approach (not to be confused with a systematic approach). The international legal order is viewed as an overarching control system, composed of several multi-levelled, and interacting international and national legal systems. The study regards the legal systems as controlling systems, each having a defined material scope and being subject to particular principles.²⁵ When in operation, each of the control systems can potentially affect biological diversity and ecological sustainability. The effects can obviously be both positive and negative.

The study's methodological approach is to a certain extent pluralistic. On the other hand it only marginally reflects a mainstream legal dogmatic method. It is instead rather pro-active. Pro-active research in terms of the study may be defined as "research that selects or formulates problems and solutions to problems that must not have already occurred in reality or in practice".²⁶ Some scholars would probably use the Latin phrase *de lege ferenda* in contrast to *de lege lata* when describing the method's main characteristics. That view has some substance.

Hence, I am interested in how the law – and more particularly legal systems – actually functions, and that is valid law, although some suggestions will be made, *de lege ferenda*. The study's methodological approach draws, first and foremost, on several features of environmental law methodology as developed by professor Staffan Westerlund.²⁷ It is furthermore inspired by the systemic approach to the laws of sustainable development developed by Justice Michael Decleris²⁸ and finally influenced by the systemic approach to legal systems²⁹ developed by Torstein Eckhoff and Niels Kristian Sundby. Finally, from a systemic point of view, I will problematise and discuss whether a particular default state promotes rather than demotes eco-

²⁵ To avoid any misunderstanding the fact that states follow basically two doctrines on the legal effects of international commitments, *i.e.* the monists' and the dualists', will not be overlooked. The very existence of these two doctrines and how they are followed by states and international legal entities does not change the study's orientation.

²⁶ Westerlund 2007, p. 641. See also Westerlund 2008, pp. 47-66, and particularly p. 58 *ff.*

²⁷ See *e.g.* Westerlund 1997; Westerlund 2003, Westerlund 2007 and Westerlund 2008, pp. 47-66.

²⁸ See Decleris 2000 as such.

²⁹ Full title in Norwegian: *Rettsystemer. Systemteoretisk innføring i rettsfilosofien*. 2. edition. TANO Oslo 1991.

logical sustainability within the scope of possible conservation of biodiversity in nature.

As previously outlined, the study is particularly interested in the legal situation when no regimes are available. Then, of course, the general principles of each of the control systems apply. The most interesting as well as most relevant question for this study then becomes how their application affects biological diversity in nature and the legal operationalisation of ecological sustainability. This calls for an examination of certain components within the systems, which in this study are the selected fundamental principles.

It is a known fact that the international legal order and its fundamental principles have been only marginally influenced by issues such as ecological sustainability and the interests of future generations. Nonetheless environmental agreements can be traced back several centuries. For example, Nagle and Ruhl report that in the year 1781 a bilateral agreement was concluded between France and Basel on the conservation of forests and hunting birds.³⁰ Moreover, in the nineteenth century, several bilateral fisheries agreements (*e.g.* an agreement between France and Great Britain in 1867) were concluded, as well as land mark agreements between the United States (US) and Great Britain on the utilisation of fur seals in the Bering Sea in 1891.³¹ Recent instruments in the environmental field are, however, still loyal to and reflect paradigms and principles that established themselves long before the demand for sustainability earned international recognition.³²

The study does not, on the other hand, seek to diminish or minimise the influence of those principles. On the contrary, it strives to demonstrate and assess their influence in relation to the realisation of ecological sustainability with emphasis on international biodiversity law.

³⁰ Nagle/Ruhl 2002, p. 870.

³¹ See further: Jóhannsdóttir 2007c, p. 271.

³² See further chapter 8.

Motivations

Behind the above orientations are several, but rather varied and perhaps incoherent reasons:

- (1) My keen interest in biodiversity and its future was motivated by some controversial decisions enacted by Icelandic authorities some years ago. All of them related to land use choices with repercussions for biodiversity and water utilisation. Some of them concern the Kárahnjúkar-project³³ (in operation) but others the preparatory phases of the Lake Mývatn-project (extended diatomic mining³⁴) and the Norðlingaalda-project (Þjórsárver nature reserve), both of which were abandoned for different reasons.³⁵
- (2) My growing doubts about whether the legal approaches reflected in so many textbooks, articles and individual studies on international law affecting the environment are sufficient. In my view they can provide a false sense of security for present and future generations as far as their ability to support and the realisation of ecological sustainability and the 2010 target is concerned.

³³ The Kárahnjúkar-project consists of a spacious reservoir, Háslón (57 km²), in the River Jökulsá á Brú, and massive water diversions into a 40 km long tunnel to the Kárahnjúkar Power Station in Fljótsdalur Valley before being diverted into the River Jökulsá á Fljótsdal. The River Jökulsá á Fljótsdal is then diverted from its original river basin into the tunnel carrying the water from Háslón reservoir to Kárahnjúkar Power Station in Fljótsdalur Valley, some 40 km below the Háslón Reservoir. The water will finally be re-diverted to the Jökulsá á Fljótsdal river basin and flow to the sea on the east coast of Iceland. Kárahnjúkar Power Station produces hydro-power to generate electricity for intensive industrial production, at Alcoa Aluminium Smelter, located at Reyðarfjörður on the east coast of Iceland.

³⁴ New scientific modelling on the complex dynamics of Lake Mývatn's ecosystem and the effects of human interference (diatomic mining on the lake's bottom since the late sixties) on midge populations and the productivity of the lake has recently been published internationally. Extensive empirical research established that human interference resulted in a lack of vital food resources and a serious reduction in the lake's charr stock, cf. Ives/Einarsson/Jansen/Gardarsson 2008, pp. 84-87.

³⁵ Lake Mývatn is a Ramsar site. The project, extended diatomic mining, was abandoned, primarily due to lack of economic gain. The Norðlingaalda-project (also a Ramsar site), damming and water diversion, planned on the borders of Þjórsárver has been abandoned, for the time being, due to the environmental risks involved and strong public resistance.

- (3) The fact that the bulk of international treaties affecting the environment hold open-ended and soft provisions. This technique has consequences not all of which are favourable for the future of biodiversity. One obvious example is the fact that individual states are free to interpret such provisions in ways that serve their own private – usually economic – interests, which, of course, are not necessarily compatible with promoting long-term ecological sustainability.
- (4) Recent international instruments recognise that biodiversity's future may be facing serious dangers, the origins of which are several and where both the causes and the effects interact. The origins are sometimes referred to as the HIPPO.³⁶
- (5) Increased scientific knowledge includes realisation of the non-linear character of ecosystems, ecosystem services and the systems' interdependencies. Seen in this light, it is necessary to accept that there are limits to sustainable development and economic growth. The limit is found in the biosphere's ability to adjust to changes, natural resilience and the ability of ecosystems to repair themselves.³⁷
- (6) Lastly, in spite of ever-increasing amount of international law intended to address environmental issues, G. Hardin's comments – published 1968 in "Tragedy of the Commons" – on the inadequateness of human laws to govern a "complex, crowded, changeable world"³⁸ are, to my mind, as challenging today as they were at the time they were written.

The above issues call for fresh viewpoints and re-evaluation of the international legal order's ability to adapt to the principles of ecological sustainability. As Carlman argues, adaptability does not only require more of the same but requires constant re-evaluation of choices and decisions in the light of empirical findings.³⁹

³⁶ HIPPO stands for **H**abitat destruction, **I**nvasive species, **P**ollution, **P**opulation and **O**ver-harvesting. Wilson 2002, p. 50.

³⁷ Westerlund 2007, p. 44.

³⁸ Hardin 1968, p. 5.

³⁹ Carlman 2005, pp. 161-166.

Some terms and general demarcation

The reader may have noticed that I refer to “international law affecting the environment” but not “international law and the environment” or “international environmental law”. The reason for the orientation is basically that *this* study is interested in international law that will eventually have an effect on the realisation of ecological sustainability and the 2010 target, and, of course, in line with the study’s objectives. This regardless of whether the law would generally be categorised as part of international law, international law and the environment, international environmental law, law of the sea, international trade law, or any other category of international law for that matter. For the sake of convenience, the term international environmental law will from time to time be used and then because the expression is to intend to reflect the above understanding.

Problems subject to international private law principles – also known as international conflicts of laws – are not part of the study. As will be seen, several examples from EC environmental law will be used from time to time to illustrate particular points. On the other hand the study does not aim to provide an analysis of EC environmental law relating to biodiversity.

References to “international biodiversity law” denote a narrower concept than international law affecting the environment. I use this to indicate the bulk of international instruments – international treaties and the various soft law instruments⁴⁰ – that are particularly aimed at biodiversity. These include the CBD, as well as measures targeting individual species and habitats, *e.g.* the Ramsar Convention,⁴¹ the CITES,⁴² the World Heritage Convention,⁴³ and the Straddling Fish Stocks Agreement.⁴⁴

⁴⁰ When this study refers to the notion of *soft law* it presupposes that some legal effects are associated with the respective instrument. See further Klabbers 1996, pp. 167 *ff.*

⁴¹ Convention on Wetlands of International Importance Especially as Waterfowl Habitat (1971), 11 ILM 963 (1972) known as the Ramsar Convention.

⁴² Convention on International Trade in Endangered Species of Wild Fauna and Flora (1972), 993 UNTS 243, known as CITES.

⁴³ Convention for the Protection of the World Cultural and Natural Heritage (1972), 11 ILM 1358 (1972), from now on the World Heritage Convention.

⁴⁴ Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of 10 December 1982, Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (1995), 34 ILM 1542 (1995), referred to as the Straddling Fish Stocks Agreement.

As will become clearer in chapter 6, when sustainable development will be tackled, the study does not aim to include a scrutiny on all of sustainable development's components. As a rule only the environmental pillar will be theorised.

Only to a very limited extent does the study attempt to systematically describe, analyse or categorise international biodiversity law or any category of international law as such. However, I deem it necessary in Part II to use this method to a certain extent in order to provide essential background as otherwise some of the study's objectives would be left in limbo.

Material used

In line with the study's objectives and orientation, it relies upon various sources. Some of these are traditional legal sources, others perhaps rather less usual in legal research. Thus, the study relies upon the traditional sources of public international law, including rulings of the International Court of Justice (ICJ) and International Tribunal for the Law of the Sea (ITLOS) and decisions of other international dispute settlement mechanisms as necessary. In order to determine further the content of the respective instruments, decisions, resolutions, the appropriate recommendations, and similarities, will be quoted as deemed necessary.

Many of the so-called *soft law* instruments play a part in the study. Instrument such as the Rio Declaration, falls into this category. Furthermore, the study relies upon several recent policy documents; *inter alia*, Agenda 21, the Johannesburg Declaration and Johannesburg Plan of Implementation. Although these instruments are generally not thought to have traditional legal effects, they are nevertheless legally relevant. Such instruments often provide both the necessary objectives and legal arguments as well as furthering the understanding of the problems we are facing and being part of their solution.

One of the hallmarks of environmental law is that its effectiveness can in many instances be measured. Official status reports are therefore important. They often provide information on the factual status of biological diversity and the threats it is facing. In line with the study's method, findings from other disciplines have also been influential.

In order to make the verification of facts accessible to many, several official websites, *inter alia*, those of international regimes relating to biological diversity, have been relied upon for texts, reports, declarations, COP-decisions⁴⁵ and similar. More traditional data bases, such as the International Legal Material (ILM) and United Nations Treaty Series (UNTS) have also proved useful resources.

Last but not least, the study relies upon the opinions, theories, models and conclusions of several authors in public international law, international environmental law and international biodiversity law. Due to the overwhelming volume of literature available, as well as the diversity of points of view on issues such as sustainable development and sustainability, choices had to be made.

Organisation and realisation

The study consists of three parts. Part I, *Theoretical background*; Part II, *The significance of the default*, and Part III, *Conclusions*.

Part I, *Theoretical background*, contains seven chapters bearing the titles:

1. *Biological diversity*
2. *International law and legal theory*
3. *Methodological motivations*
4. *The basics of the study's methodology*
5. *The international legal order*
6. *Sustainable development*
7. *The role of law*

⁴⁵ The Conference of the Parties, from now on COP or CP. These decisions are usually found in COP reports and sometimes in particular publications, such as in the *Handbook of the Convention on Biological Diversity Including its Cartagena Protocol on Biosafety*. 3rd edition. Published by the Secretariat of the Convention on Biological Diversity. Montreal Canada, 2005. Cited as the Biodiversity Handbook 2005. I rely upon the Biodiversity Handbook 2005 for material until 2005, but on UNEP documentation after that. The Biodiversity Handbook as well as all CBD COP decisions is available on www.int/convention/decisions.shtml.

Part II *The significance of the default* holds three chapters:

8. *Fundamental principles*
9. *International biodiversity law*
10. *International trade and biodiversity*

Part III, *Conclusions* holds one chapter:

11. *Final conclusions*

Chapter 1, *Biological diversity*, contains a non-legal discussion for the concept of biodiversity, as well as providing background on the study's approach. The concept of biodiversity is elaborated as well as the so-called HIPPO. The introduction of the concept of biodiversity shifted the previous emphasis on the targeting of individual species to an inclusive approach that considered all life and ecosystems as part of a greater whole. Attention will also be drawn to the fact that there is a great deal of scientific uncertainty on biodiversity and ecosystems. The problem of the size of the human population is also given attention as are the latest estimates on how the population curve will develop in the near future. There is obviously no linear connection between the increasing human population and the carrying capacity of ecosystems, which is a troubling fact. The carrying capacity is however a fundamental premise for the future of the human population and its continued existence. Finally, the chapter highlights the core issues at the heart of the biodiversity problem.

Chapter 2: *International law and legal theory* gives an insight into international law and legal theory. The chapter's purpose is first and foremost to illustrate one point – that there are choices when it comes to researching international law affecting the environment. Legal researchers enjoy freedom, either to select an existing theoretical framework or develop a new one. The object under scrutiny each time should point the way to the solution. As such the chapter does not aim to be either original or exhaustive. Attention is drawn to the sound of silence or the fact that many research projects in international law affecting the environment are surprisingly silent on theories and methods. Thus the chapter provides information on some of the ruling theories of international law research, including those on

positivism, international legal process, policy-oriented jurisprudence and critical legal studies. Finally, a model *theory-method-methodology-flow* is introduced in order to further the understanding of how the study's methodological approach was developed.

Chapter 3, *Methodological motivations* gives, as its title indicates, an account of the methodological influences and motivations that have set the course for the methodological approach that I apply in the study. Some aspects of the theories of four scholars are introduced and an explanation given on how these relate to the study. The theorists are, Staffan Westerlund, Michael Decleris, and finally Torstein Eckhoff and Nils Kristian Sundby. What all of them have in common is that they tie their legal approaches to system theories. These theories were not developed with law or legal systems in mind. They are, however, useful for the understanding of how legal systems function.

Chapter 4, or *The basics of the study's methodological approach* outlines the fundamentals of method that I employ in the study. In short, I apply an adapted version of Westerlund's EML that is influenced (indirectly) by Decleris and Eckhoff and Sundby. Thus the main objective of the chapter is to introduce and discuss some of the prerequisites and models that will be used in the study. Some of ELM's models are reintroduced, including the deficit model and the basic action-reaction model. Finally, a new theory, the theory of the double deficit will be introduced. In order to underpin this theory, particular fundamentals will be introduced and discussed. These include: first, the monist and dualist theories and the question of how important or relevant they are for this study; second, the growing tendency towards particular treaty institutions and law creating decisions taken by such institutions, and finally, the rule of law of international law.

Chapter 5, *The international legal order* has the objective of providing some fundamental information on the international legal order as a control system for environmental control. I place emphasis, first, on the order's evolution, codification of international law, and the fact that international law is increasingly regulating matters that previously were considered internal matters, and second on the order's decentralised structure in legislating and enforcement. Moreover, attention is given to the legal sources and to the problem of the increasing amount of soft law and its legal relevance. The above issues

are discussed, *inter alia*, in the light of the deficit model and in the light of the fundamentals of systemic thinking.

Chapter 6 is titled: *Sustainable development*. I place the main emphasis on the concept of sustainable development since there seems to be a tendency to water out the meaning of the concept in the legislative process. The reason, as will be demonstrated, is some kind of misunderstanding of the nature of the three fundamental systems that make up sustainable development. In order to help the reader comprehend sustainable development, and, even more importantly, ecological sustainability, this chapter explains the basic components of the concept. Finally, ELM's principles of ecological sustainability will be introduced and discussed. Several models will be relied upon in order to facilitate understanding of what is a fundamental premise for all legal development at the present times.

Chapter 7, *Role of law* elaborates several issues relating to the role of law in relation to rule of law. Further, how law when viewed from a systemic point of view functions. In order to realise how law actually functions for the furtherance of ecological sustainability, the main aspects of Hardin's tragedy are first of all introduced. Thereafter the rule of law ideal will be elaborated. Since theorists may differ on how to establish the law in individual cases, which amounts to setting up a framework for the rule of law, the views of Raz and Dworkin will be brought to the fore and discussed. Thereafter several fundamentals of ELM with regard to the role of law and the different kinds of law are elaborated. Several other kinds of law will also be introduced and discussed, including the main characteristics of the different structures of international law and quality standards and their distinctiveness and importance. Last, but not the least, I will discuss the significance of the default.

Chapter 8, *Fundamental principles* is the first chapter of the study's Part II. In this chapter I introduce two principles of the international legal system which are also fundamental principles of international law with implications for the environment. The basic objective is to facilitate the understanding of the default of the international legal order and how it actually functions. The principles are (1) the principle of the sovereign right of states to use their natural resources and (2) the obligation of states to prevent environmental damage. The legal foundation of these principles will be explained, *inter alia*, in the

light of available international case law. Furthermore, the principles will be theorised, *inter alia*, by relying upon the action-reaction model. The third principle elaborated in the chapter is the one of state responsibility that will also be elaborated.

Chapter 9 is titled: *International biodiversity law*. The chapter elaborates this field of law and aims to facilitate the understanding of how the international legal order is providing two control systems relating to biodiversity. From time to time these systems overlap, but they are in principle parallel systems. As a rule it is the location of the biodiversity that determines under which of these control system it falls. The chapter outlines and discusses the basic principles of the CBD and the United Nations Convention on the Law of the Sea (UNCLOS) as well as other international regimes relating to biodiversity. The coverage and discussions will, *inter alia*, be tied to the action-reaction model.

The last chapter of Part II is chapter 10: *International trade and biodiversity*. The chapter's objective is to elaborate one particular controlling system, the World Trade Organization's (WTO) by relying upon ELM. It aims to highlight how this regime functions for biodiversity in nature. As a means to this end the relevant provisions of the General Agreement on Tariffs and Trade (GATT) and some available case law will be investigated. Finally, it will be explained how WTO members are refrained from, or at the least, have to accept particular kinds of restrictions on their freedom in order to protect their own environment, when they become members of the WTO.

Part III contains one chapter, chapter 11: *Final conclusions*. In chapter 11, I will set forth the study's final conclusions.

* * *

The introduction's opening statement is part of the Millennium Development Goals, adopted by the United Nations General Assembly on September 8, 2000.⁴⁶ Seven years later, the Millennium Development Goals Report of 2007 stated: "Despite increased efforts to conserve the land and seas, biodiversity continues to decline."⁴⁷ In line with Goal 7 of the 2007 report, the one about ensuring environmental

⁴⁶ United Nations Millennium Declaration. Item five, paragraph 6, Part I.

⁴⁷ Millennium Development Goals Report 2007, p. 23.

sustainability, the target set was to integrate sustainable principles into policies and programs and reverse and stem the loss of environmental resources.⁴⁸ Recent surveys, however, indicate that less than 10% of Europeans have any idea what this or any of the other Millennium Goals is about. This is a troubling fact given the central importance of this topic to the Millennium Development Goals.⁴⁹

Thus it is possible, or at least not impossible, that this century's epilogue will contain phrases such as "please forgive us, but we were so busy protecting the rights of states to exercise their sovereign rights to degrade nature that we forgot that humans are after all dependent upon biodiversity and ecological sustainability".

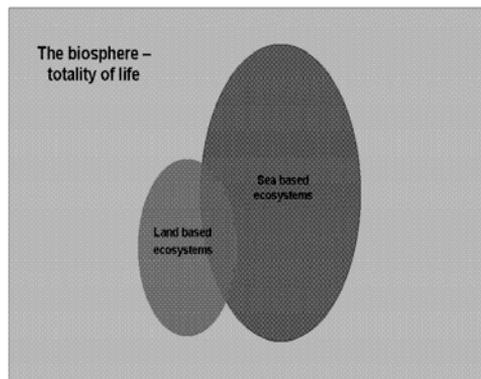


Figure 2

⁴⁸ *Ibid.* p. 22.

⁴⁹ Rapport on the subject-matter of the Millennium Development Goals of 2000. Icelandic National Broadcasting Service (RUV) on July 13, 2008.

Part I Theoretical background

1. Biological diversity

1.1 Introduction

“... there will be some kind of organism living ... An extreme example is the McMurdo Dry Valleys of Antarctica, whose soils are the coldest, driest, and most nutritionally deficient in the world. On first inspection the habitat seems ... sterile. ... But the trained eye, aided by a microscope, sees otherwise. In the parched streambeds live twenty species of photosynthetic bacteria, a comparable variety of mostly single-celled algae, and an array of microscopic invertebrate animals ...”⁵⁰

As was pointed out in the *Introduction* full biodiversity constitutes a fundamental component of ecological sustainability and its realisation. I therefore deem it necessary to provide a non-legal introduction to several fundamentals of biodiversity. The main purpose of the chapter is thus to set the context for the chapters to follow. The chapter also aims to provide the reader with the necessary insight into the complexity of the concept of biodiversity and the interactive threats that species, ecosystems and habitats are currently facing.

1.2 The complexity of biodiversity

1.2.1 The concept

Biodiversity, or the diversity of ecosystems, of species and diversity within species (genetic diversity),⁵¹ is a flowing, dynamic and irreplaceable natural resource, ruled by the laws of nature. The resource is of the utmost importance for the continuing evolution and maintenance of the biosphere – for the totality of life, and for ecological sus-

⁵⁰ Wilson 2002, p. 5.

⁵¹ Wilson 1994, p. 377; Glowka, *et al.* 1994, p. 16, and finally Article 2 of the CBD. It is clear from CBD COP Decision II/11 (1995) that the concept of biodiversity and the CBD does not apply to human genetic resources. The study takes the same point of departure.

tainability. Biodiversity stands for life, and *all* life depends upon biodiversity in one form or another.

Without properly functioning ecosystems, life as we know it would not be possible. Healthy and relatively stable yet continuously evolving biodiversity provides an indispensable balance of certain elements, species (all forms of life) and ecological functions – life on Earth. As Edward Wilson’s puts it, three basics constitute biodiversity or

“[t]he variety of organisms considered at all levels, from genetic variants belonging to the same species through arrays of species to arrays of genera, families, and still higher taxonomic levels; [the notion] includes the variety of ecosystems, which comprise both the communities of organisms within particular habitats and the physical conditions under which they live.”⁵²

As such, the concept of biodiversity does *not* focus on any particular species or ecosystems, nor does it rely upon the commonly used endangerment criterion. It is however concerned with functions of ecosystems and with their resilience. The concept simply embraces the variety of *all* species, living organisms and ecosystems regardless of their role, wherever located, and, in addition, their interaction with particular physical conditions of the environment.

Biodiversity consists of three-layers and a particular hierarchy:

- (1) variety of ecosystems;
- (2) variety of species, and
- (3) variety of genes (sometimes referred to as genetic diversity).⁵³

The three-layer approach is one that is generally accepted by natural scientists. It also has legal status and is currently a part of international regimes. Even more importantly, it forms the core of the widely accepted CBD. Article 2 of the CBD provides the following definition:

⁵² Wilson 1994, p. 377, and *passim*. See furthermore almost identical explanations in Glowka, *et al.* 1994, p. 16, and finally, Article 2 of the CBD providing compatible explanation.

⁵³ Wilson 2002, p. 10-11.

“the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.”

In order to protect and manage biodiversity effectively, its components need to be identified. This identification is itself an enormous task and scientists still have an amount of work pending, since only a portion of the world’s biodiversity has been systematically described.⁵⁴ This fact makes biodiversity’s future even more vulnerable and calls for caution to be exercised in all decision-making likely to have an environmental impact. In order for management and conservation measures to work properly, the problem of deteriorating biodiversity requires attention, simultaneously, at all levels of governance; global, regional, national and local.

The figure below, figure 3, illustrates the interaction and interdependence between organisms that live on or above the surface of the Earth, as well as those whose habitats are in or below the surface. Only a fraction of terrestrial biodiversity is thus visible to humans, a fact that adds to its vulnerability, due to the consequent lack of general attention. The horizontal line stands for the surface of the earth, but a great variety and number of biological organisms are located below this line. This is sometimes referred to as the *black box* due to lack of information on this biodiversity; however scientists seem to be in an agreement of the necessity of further research in this area.

⁵⁴ See *inter alia* Wilson 2002, pp. 14-21.

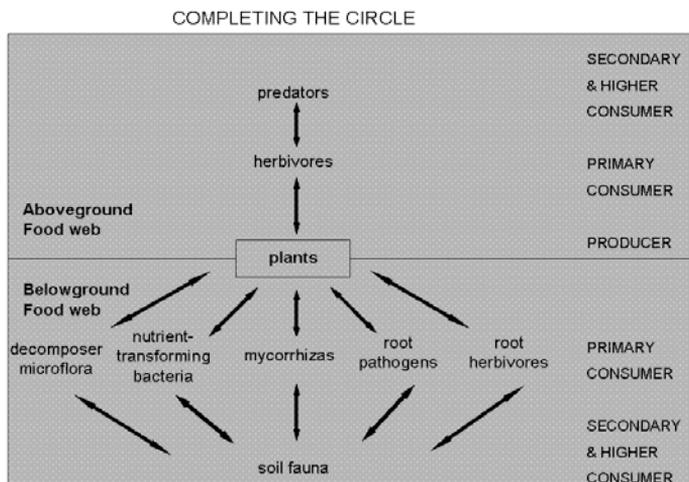


Figure 3

The figure also reflects the interaction between the aboveground organisms and belowground components. The arrows show possible directions of effects between the organisms.⁵⁵ Figure 3 helps to make clear the complexity and inter-connectedness of biodiversity. Law including international biodiversity law usually cater only for the species located above the line, and then only partially. It is therefore necessary to close the circle, so to speak.

There are some exceptions to this rule. The most obvious one is when biodiversity as such, undefined habitats and the soil are made subject to regulation and management measures. In the case of oceanic biodiversity, the main emphasis of international regulation has been on the management of harvested fish stocks, particular marine mammals and anadromous and catadromous stocks. All other species are usually unregulated.

1.2.2 Biodiversity's evolution

Biodiversity's evolution spans a long time, more than three billion years. *Homo sapiens*, or humans, are newcomers in this respect and only arrived in the arena some 1 million to 100,000 years ago.⁵⁶ By

⁵⁵ See further: Wardle 2002, p. 139 and figure 5.1 on p. 139, *ibid*.

⁵⁶ Wilson 1994, p. 174, and Raven/McNeely 1998, pp. 13-15.

then life on planet Earth had more or less taken on the shape that present generations are accustomed to, and all living creatures – including humans – are carefully adapted by nature to fit into this physical and biological reality.⁵⁷ It is not the other way around. In that respect, the interests of human beings and biodiversity synchronize and become one.

Hitherto, biodiversity has survived five major natural catastrophes and countless minor disturbances. Yet, biodiversity has managed to continue and to evolve even further, although not always in the same form. After each of the five catastrophes, the recovery time needed to get back to the original level would have to be counted in tens of millions of years.⁵⁸ At the present times, biodiversity is thought to be undergoing the sixth catastrophe and is facing grave challenges, which may seriously affect all life permanently, if anthropogenic impacts are not adequately and precautiously controlled.⁵⁹

Scientists seem to be in agreement that the overall status of biodiversity is threatened. In their Hague Ministerial Declaration (2002), the CBD parties⁶⁰ reconfirmed

“the commitment to have instruments in place to stop and reverse the current alarming biodiversity loss at the global, regional, sub-regional and national levels by the year 2010;”⁶¹

1.2.3 Time, space and stability

As an ever changing phenomenon, biodiversity’s composition constantly changes. Under the energy-stability-area theory of biodiversity

“... the more solar energy, the greater the diversity; the more stable the climate, both from season to season and from year to year, the greater the diversity; finally, the larger the area, the greater the diversity.”⁶²

⁵⁷ See *e.g.* Wilson 1994, p. 331 and *passim*.

⁵⁸ *Ibid.* pp. 22-30 and *passim*.

⁵⁹ *Ibid.* pp. 22-30, 160-198, 327, and *passim*.

⁶⁰ See also CBD COP Decision VI/26 (2002) and CBD COP Decision VI/28 (2002).

⁶¹ Biodiversity Handbook 2005, p. 145.

⁶² Wilson 1994, p. 187. Some natural scientists, working in particular on the diversity of coastal zones and the oceans, have criticized the emphasis on the number of species and on the tropical rain forests, which Wilson is concerned with. Ray, *inter alia*, insists that certain ecological characteristics of coastal areas are equally as important.

The theory underscores the interaction and interdependence between the variety of species and area size. These factors also depend on some degree of stability and the quality of certain environmental factors such as sufficient water supply, adequate air quality and stable weather conditions, to name but a few.

New species arrive and others disappear. Precisely how new species emerge is a complex process, requiring *time*, *space* and a certain *stability* and natural resilience within the environment. Not surprisingly, the process takes place, for the largest part, purely by chance.⁶³ This development is therefore non-linear in character and thus unpredictable.

1.2.4 The importance of species and lack of information

How many species are there? No one knows. The number could be 10 million or 1,000 million.⁶⁴ Relatively few species have a name, scientific or otherwise. Wilson estimates the number of described species – plants, animals and micro organisms – to be somewhere around 1.5 to 1.8 million.⁶⁵ Furthermore, the oceans and their biological wealth are, in many respects, still unknown.⁶⁶

Some species are keystone species in the sense that their disappearance from particular habitats can cause drastic changes and imbalances in their community, and if the species is replaced, which is sometimes possible, the community returns to its original state.⁶⁷ Other species, opportunistic species, are sometimes equipped to take over the role of species that suffer shocks.⁶⁸

Though most of the species that once inhabited Earth are now extinct, there are more species living today than ever before.⁶⁹ This sounds paradoxical, and this fact will undoubtedly raise doubts in

See further: Ray 1988, p. 36 *ff.* In Wilson 2002, oceanic diversity is given equal attention to terrestrial.

⁶³ Wilson 1994, *inter alia* on pp. 69-85.

⁶⁴ Wilson 2002, p. 14. Over 99% of discovered species are only known by a scientific name, and according to Wilson there is a general lack of knowledge on ecosystems, see further Wilson 1994, pp. 123-152, 204, 328 and *passim*.

⁶⁵ *Ibid.*

⁶⁶ Wilson 1994, *e.g.* pp 123-152, and Wilson 2002, pp. 6 and 14-16.

⁶⁷ Ecosystems 1997, pp. 65-67. See also a success story of the restoration of sea otters to the west coast of North-America. See further Wilson 1994, pp. 154-155.

⁶⁸ Wilson 1994, p. 154.

⁶⁹ *Ibid.* p. 204.

some people's minds on the magnitude of the danger presently threatening biodiversity. Without variety of species and ecosystems, life as it is presently known on Earth would be impossible.

1.2.5 Ecosystems and their importance

Ecosystems are usually described as being

“...organisms living in a particular environment, such as a lake or a forest (or, in increasing scale, an ocean or the whole planet); and the physical part of the environment that impinges on them.”⁷⁰

These systems are functional units where the diverse species and communities of species play different roles.⁷¹ The size and character of these systems varies from one to another. Some are mega-systems, like the biosphere. Others are micro-systems and invisible to the naked eye. The systems' complexity and functions are yet to be fully understood. Even so, their importance for life seems to be an undisputed fact.⁷² The systems provide particular services, which are indispensable for the maintenance of the biosphere's life-sustaining systems. Wilson explains what is generally meant by the services:

“The role played by organisms in creating a healthful environment for human beings, from production of oxygen to soil genesis and water detoxification.”⁷³

Without ecosystem services, such as keeping the carbon dioxide (CO₂) level in the atmosphere stable, the quality of life would almost certainly deteriorate.⁷⁴ Furthermore, the services take place totally without any synthetic limitations, such as state jurisdictions or defined legal systems. Furthermore, they have no correlation with any

⁷⁰ *Ibid.* p. 380.

⁷¹ See also a compatible explanation: “The physical environment plus the organisms living in it of a particular habitat, such as a forest or a coral reef (or, in increasing scale, up to the whole planet). Ecosystems can be natural or artificial.” Wilson 2002, pp. 214-215. See furthermore, *Ecosystems* 1997, p. 69 ff.

⁷² Wilson 1994, pp. 271 ff, 293-296 and Wilson 2002, pp. 105-112. See also, e.g. Glowka, *et al.* 1994, p. 20 and *passim*, and a detailed coverage in *Ecosystems* 1997, pp. 13-87.

⁷³ Wilson 1994, p. 380.

⁷⁴ *Ibid.*

rights awarded to individuals and protected by laws and legal systems. In this context, it is of importance to realise that anthropogenic impacts can alter, and are in fact altering, natural circumstances. These changes can permanently affect the future of biodiversity, including ecosystems and their functions.

Anthropogenic impacts and their sources are on the other hand manageable, at the least to a certain extent, and can be controlled and regulated, while natural systems – including ecosystems and particular species – only *react* to external influences and pressures to which they are exposed. It should suffice here to point out the expected effects of climate change that could heavily affect biodiversity in the near future.⁷⁵

Every now and then information on the strange behaviour of species is reported. One interesting example caught my attention in the beginning of August 2008. It concerned information on that one third of the Danish bee population has disappeared without any obvious explanation. If this situation is not corrected it could lead to a radical reduction, or even the collapse, of fruit production in Denmark.⁷⁶

1.2.6 Complex value and traditional regulation

Some species have obvious economic and social importance as providers – or potential providers – of food and feeds, pharmaceuticals and material for the diverse industrial productions and processes. Moreover biodiversity as such has an intrinsic value as well as scientific, educational, cultural, recreational and aesthetic value.⁷⁷ However, and most importantly, indispensable life supporting systems – usually mega-ecosystems – cannot operate properly without rich and relatively stable, but still evolving biodiversity.

The effects of ecosystems are diffuse in the sense that it can be difficult to trace particular effects to the exact species or populations that are making the systems functional. Consequently, to use traditional monetary methods, *inter alia*, traditional tort law methods when evaluating ecosystem services, may give artificial conclusions and therefore wrongful results.

⁷⁵ See further: Climate Change 2007, p. 1, *et seq.*

⁷⁶ Report on the subject-matter. Icelandic National Broadcasting Service (RUV) August 9, 2008.

⁷⁷ The CBD's preamble recognises all of these issues.

It is of course not a coincidence that most international regulatory efforts were initially aimed at larger species (the mega fauna and birds) and the ones with high economic value. There seems, however, to be life in some form everywhere on Earth.⁷⁸ And all life has a purpose or at the least a function. In the light of the information presently available on the state of biodiversity, a different regulatory approach, that is different from the classical nature conservation, is required. The classical methods have placed the emphasis on the protection of particular habitats and species, as a rule species having high economic value, and large and endangered species, usually mammals. The means of conservation and management have traditionally included the protection of defined areas, the fixing of hunting seasons, restriction of trade in endangered species, implementing of TACs, etc. If figure 3 is recalled then the main emphasis has been placed on organisms whose habitat is above the horizontal line.

All management and conservation measures are *important* for biodiversity's future, however, and none should be discounted even though different regulatory measures and changes in perspective may be required. New approaches are beginning to establish themselves, approaches such as the ecosystem approach,⁷⁹ which builds, *inter alia*, upon an adaptive management.⁸⁰ Of course, the necessary precautionary approaches should not be forgotten either.⁸¹ In a way, all of these issues upset traditional legal thinking and challenge many fundamentals of laws as well as raising many questions about the ability of law and legal orders to effectively protect biodiversity. Furthermore, these new approaches need to be made legally operational within legal systems in order to deliver the sought after results. All the same, there may be obstacles to this process, some foreseen but others not.

⁷⁸ Wilson 2002, p. 5, describing the poor environments in parts of Antarctica but still capable of sustaining some form of life.

⁷⁹ Cf. CBD COP Decision V/7 (2000), and CBD COP Decision VII/11 (2004), both address the Ecosystem approach.

⁸⁰ Adaptive management is an indispensable component of the ecosystem approach. *Ibid.* See also Carlman 2005, pp. 161-166, addressing *inter alia* the principles of planning adaptivity.

⁸¹ See e.g. the emphasis that is placed on precaution in relation to alien species cf. CBD COP Decision VI/23 (2002).

1.2.7 The current state of and causes of deterioration

A number of species including some large mammals⁸² and many of the popular oceanic target stocks are on the brink of extinction due to overexploitation and overkill.⁸³ More recently, climate changes, ozone layer depletion and environmental pollution have added further threats to biodiversity. The climate issue is even more of a threat to the future of biodiversity than previously thought.

The biggest threats to terrestrial biodiversity tie to habitats' fragmentation and destruction, as well as the innovation of exotic and alien species. With substantial habitat reductions, opportunities for further evolution of biodiversity may even vanish all together. Moreover, the rainforests, which are extremely important for both biodiversity and climate stabilization, are exceptionally fragile habitats, mostly due to their acidic and nutrient-impooverished soils which leave them open and unprotected to change thus increasing the risk of desertification.⁸⁴

Finally, due to water shortage and climate change, desertification is a growing problem in many regions of the world, a problem to which the international community has, however, responded. An important element is that particular human actions, such as the direct utilisation of particular stocks and species, habitat reductions and land-use planning in general, are still being carried out without respect for the ecological limits dictated by sustainable development.⁸⁵ Decision-making leading to environmental impact is thus in a way a hostage of an old paradigm.

⁸² Wilson 1994, pp. 235-237.

⁸³ It is interesting to view statistics. The oceanic catch grew from 9 million tonnes in 1938 to 19 millions tonnes in 1950 to more than 90 million tonnes in 1997. State of the World 2000, p. 8. According to official statistics published by FAO, world fisheries (marine) has been stable for the last five years or so, around 85 million tonnes per year, but did grow considerably from 1950, or from 20 million tonnes per year. See further: The State of World Fisheries and Aquaculture 2006, particularly p. 3, table 1, and figure 3, p. 6. On the overall state of oceanic fish stocks the same source reports that "Over the past 10 – 15 years, the proportion of overexploited and depleted stocks has remained unchanged, after showing a marked increase during the 1970s and 1980s. It is estimated that in 2005, as in recent years, around one-quarter of the stock groups monitored by FAO were underexploited or moderately exploited and could perhaps produce more, whereas about half of the stocks were fully exploited and therefore producing catches that were at, or close to, their maximum sustainable limits, with no room for further expansions." *Ibid.* p. 7.

⁸⁴ Wilson 1994, pp. 241-246, and p. 261.

⁸⁵ See an overview of different interpretations of these limits: Jóhannsdóttir 2005, pp. 27-48 and also chapter 6.

1.2.8 The HIPPO

The current state of biodiversity is for the largest part a reaction to several interactive anthropogenic impacts – sometimes, as mentioned in the *Introduction* referred to as HIPPO. This fact has earned international recognition and acceptance and recent international regimes build upon the premise that biodiversity's future faces serious dangers.

This takes us to another troubling fact. During the 20th century alone the world population grew from 1.6 billion to 6.1 billion and 80% of the growth took place after 1950. Furthermore, the human population is not expected to stabilize until the latter part of this century and is estimated to reach 9.3 billion by the year 2050 (medium-fertility variant is used given the average of 2.1 children per woman).⁸⁶

These estimates cannot be ignored and need to be taken into consideration when the relationship between biodiversity and law is examined. To illustrate this problem, the population curve below says more than words can.⁸⁷

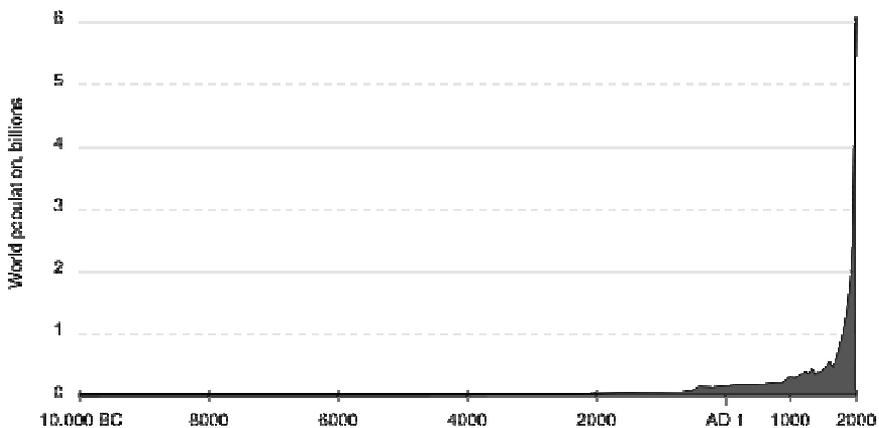


Figure 4

⁸⁶ World population 2001, pp. 5-6. See similar estimates in State of the World 2000, p. 5, and also Meadows/Meadows/Randers/Behrens III 2005, pp. 16-19. For the latest estimates and general information, see the homepage of the United Nations Department of Economic and Social Affairs, Population Division <http://www.un.org/esa/population/unpop.htm>

⁸⁷ Image: Population curve.svg on http://en.wikipedia.org/wiki/Image:Population_curve.svg visited June 1, 2008. See also an identical curve, cf. Fig. 1.5 (image) provided by Meadows/Meadows/Randers/Behrens III 2005, p. 17.

When the population issue and the problem of biodiversity are brought together, the competitive element is obvious. If this development continues, however, it could result in mass habitat destruction, imbalances in the evolution of new species that will eventually affect the function of ecosystems.⁸⁸ Such changes would have devastating economic, social and environmental consequences in the future. This is of course the background behind the ambitious objective of bringing a halt to deterioration by the year 2010, as previously mentioned.

The figure presented below, figure 5, illustrates how biodiversity is affected by the HIPPO on the one hand, and how ecological effects stem from biodiversity as such, on the other. Thus, the oblong form in the centre of the figure represents any definable ecosystem and its components; the many As stemming from them, their ecological effects, B pollution which has effects on ecosystems and their components, C climate changes and their related effects, and D growing pressure due to the size of the human population. E represents direct utilisation of individual stocks and species and F stands for reduction of natural habitats and their fragmentation. Finally, H and G indicate quality and quantity standards. When viewed as a whole, the model could be situated on the right side of the basic action-reaction model,⁸⁹ since ecosystems and their components react to human conduct and activities.

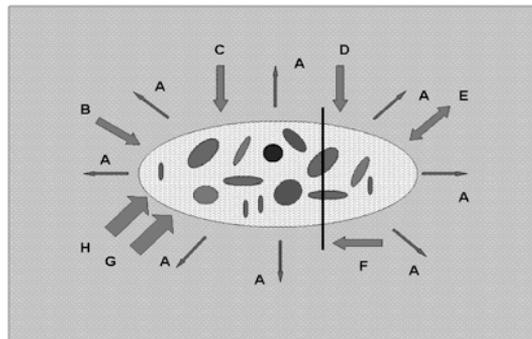


Figure 5

⁸⁸ Wilson 1994, pp. 231-268, and Wilson 2002, pp. 22-78.

⁸⁹ See further chapter 3.

1.3 The core of the biodiversity problem

In line with the above analysis, the core problems of deteriorating biodiversity are two:

- (1) the growing extinction rate of species, *i.e.* more species are disappearing⁹⁰ – three per hour Wilson estimated nearly two decades ago⁹¹ – than new are evolving, and
- (2) the fact that the extinction rate is accelerating;⁹² some say the rate is now around 100 times faster than the natural average.⁹³

The very same problems are the subject of international regulation and governance and central to the international legal order's role as a controlling mechanism for safeguarding biodiversity presently as well as in the future.

⁹⁰ Wilson 1994, pp. 231-268, and in particular pp. 266-268, and Wilson 2002, pp. xxiii and 28-29.

⁹¹ Wilson 1994, p. 268.

⁹² *Ibid.* pp. 231-268, and Wilson 2002, 98-101.

⁹³ See further the Paris Declaration on Biodiversity 2005, particularly its item 2.

2. International law and legal theory

2.1 Introduction

“To have a theory of (the nature of) law is to presume that there is an object or category “law” to theorise about. Theories of law will tell one what it is that makes some rule (norm), rule (norm) system, practice, or institutional “legal” or “not legal”, “law” or “not law”.”⁹⁴

As outlined in the *Introduction* one of the objectives of this study is to elaborate a theory framework on which the theory of the significance of the default is based. I therefore deem it necessary to give theory and international law some general attention. The present chapter therefore serves as general contribution to the study’s theoretical background. It has one basic objective namely to provide a brief introduction on legal theory in international law research. The following coverage is not intended to be either original or exhaustive however. Its sole purpose is to demonstrate that there are choices available when international law affecting the environment is being researched. Individual researchers have the freedom, either to choose an existing theoretical context or to develop new ones. I will therefore argue that the nature of the objective of legal regulation plays a part when it comes to both theory and method. The nature of each of the problems under scrutiny should point the way to their solution. Thus, my objective, in this study biological diversity, has had an influence on my choice of theoretical framework, and on its development. Although the methodology of international law is only marginally included in the foci below, theory of law and law’s method are usually so intertwined that I will not attempt to fully separate these issues.

The chapter proceeds as follows: Section 2.2 provides some short introductory remarks on terminology and on issues related to explication of the use of different terms in legal theory, which often refer to the same or similar concepts. Thereafter follows an introduction on

⁹⁴ Bix 2006, p. 9.

some theories of international law, *cf.* section 2.3. The section very briefly introduces positivism, highlighting some of its characteristics; *inter alia* the separation of law and morals and formalities. Thereafter the spotlight will be placed on international legal process, introducing some of its aspects and its development in international law. This will be followed by some aspects of policy-oriented jurisprudence, criticising, *inter alia*, the reliance on past experiences, and finally critical legal studies and their criticism on one single truth. Section 2.4 provides a short discussion on the theories introduced in section 2.3. Section 2.5 introduces and discusses a model, *cf.* figure 6. Finally, section 2.6 sets forth short conclusions and sums up the chapter's main findings.

2.2 Terminology

Since the chapter's introduction indicated that legal theory and law methodology can seldom be kept completely separate, legal theory, whether it be internal or external, influences legal argumentation – a few relevant terms that reflect different concepts will now be elaborated. The division into *Legal theory* and *Legal method* is purely artificial and done for practical reasons only.

2.2.1 Legal theory

References to *legal theory*, *jurisprudence*, *doctrines*, *methodology*, *schools of thought*, *theoretical frameworks*, etc., reflect several connotations depending on their material contexts and traditions. When tied to the legal science and legal research in general, two concepts are usually being indicated.

First, generally and as a rule, abstract theoretical doctrines that provide law with its philosophical foundation, basic concepts, principles and lines of argumentation (internal theories of law⁹⁵). See in this

⁹⁵ References to internal and external theories of law are in this study used to make a distinction between two fundamental issues. First, legal theories, covering fundamental and abstract issues such as the philosophical foundation of law, the concept of law, hierarchy of the sources, principles of interpretation, etc., are internal theories. Second, external theories, as viewed by this study, are theoretical and methodological approaches relied upon due to their relevance to a particular subject area of law, or developed for individual legal research projects in a particular field. See further the study's *Introduction*.

respect some of the authorities in this field, such as H. L. H. Hart, one of the most influential positivists of modern times,⁹⁶ and R. Dworkin who offers an alternative approach to modern positivism by including moral evaluation of law.⁹⁷ Also to be mentioned is M. Koskenniemi,⁹⁸ a theorist who predominantly targets theoretical aspects and the structure of international legal argumentation and their comparison.⁹⁹

Second, an especially defined legal theory or methodology, *i.e.* a set of theories, principles, criteria, hypotheses and argumentation, in which a particular legal research takes place or is developing (external legal theories). Many of the particularly defined spheres of law, including spheres of international law, have developed some form of external theoretical basis. It is usually clear from the context whether one is applying an internal or external legal theory. In legal research, however, they intertwine and are usually interdependent and interactive.

To provide one concrete example of the latter, ELM offers an independent theoretical framework (methodology). It is made up by particular prerequisites, principles and lines of argumentation for envi-

⁹⁶ See particularly *The Concept of Law*, first published in 1961. (Hart 1997).

⁹⁷ See further: *A Matter of Principle*, (Dworkin 1985) and *Law's Empire*, first published in 1986, (Dworkin 1998). Dworkin offers alternatives by, *inter alia*, including morality in legal argumentation. Dworkin's approach is sometimes thought to represent a category of its own, labelled by him as an *interpretive approach*. Dworkin does not particularly target international law. Even so, some aspects of his approaches are all worth mentioning. One is that he distinguishes between rules and principles. In his view, legal principles represent morals and have an influence on all legal argumentation. Another is that he realised that legal practice was sometimes difficult to explain by relying upon the positivist approach. See further an overview provided in Bix 2006, pp. 87-99.

⁹⁸ See further *e.g.* Koskenniemi, M.: *From Apology to Utopia. The Structure of International Legal Argument*. Lakimiesliiton kustannus. Finnish Lawyers' Publishing Company, Helsinki 1989. (Koskenniemi 1989).

⁹⁹ Of course, many other theorists have contributed to the development of legal theory in modern and post-modern times. For example, John Finnis – a traditional natural law theorist building on Thomas of Aquinas – places the main emphasis on self-evident (improvable) and particular intrinsic goods, that is life, knowledge, play, aesthetic experience, sociability, practical reasonableness and religion. Finnis theorises ethical questions relating to intrinsic goods and law and his basic arguments relate to their supremacy. See further an overview in Bix 2006, pp. 72-77. Another noteworthy natural law theorist, categorised as modern – in contrast to traditional – is Lon Fuller. He takes a different point of departure, sharply criticising several aspects of positivism. He, *inter alia*, argues that the positivists misunderstood the concept of law due to their reductionistic approach to it. Fuller offers a legal analysis premised on the internal morality of law that he saw as order, good order and justice. *Ibid.* pp. 80-84.

ronmental law research.¹⁰⁰ An essential component of ELM is that it does *not* represent a dogmatic legal method. Its aim is not to systematically identify, describe or analyse law in any detail. On the other hand, ELM strives to demonstrate how law and legal systems – man-made linear instruments and structures – *influence* and affect the environment and its components as well as the biosphere as such – presently and in the future. The latter are non-linear phenomena and *only* subject to the law's of nature.¹⁰¹ However, ELM does not directly reject any established legal theory or method, even though one can sometimes read between the lines and detect criticism on the positivists' theory and standard methodology of law, where the emphasis has been placed upon classical, legal dogmatic approach in legal research.¹⁰²

2.2.2 Legal method

Although not absolute, when one refers to *legal method*, sometimes also *methodology of law* or *legal process*, what is being indicated is usually the progression that takes place in order to reach a concrete legal conclusion as well as the manner in which, and in accordance with what legal sources, such a conclusion has been arrived at.¹⁰³ For example, M. Bos offers a theory on the legal process of international law by covering systematically, and in accordance with a particular theoretical framework, the process, that is, the work that takes place on a rule from the time it is enacted or accepted until it is executed or enforced. His principal work in this respect is *A Methodology of International Law*,¹⁰⁴ which provides a comprehensive theory on the subject.

¹⁰⁰ See further: *Miljörättsliga grundfrågor. Temahäfte i miljölära*, published in 1987, Westerlund 1987; *En hållbar rättsordning. Rättsvetenskapliga paradig och tenkevändor*, published in 1997 (Westerlund 1997); *Miljörättsliga grundfrågor 2.0.*, from 2003, Westerlund 2003, and finally, *Fundamentals of Environmental Law Methodology*, Westerlund 2007.

¹⁰¹ Not to be confused with natural law theory (*Naturrecht* or *ius naturale*).

¹⁰² See further chapter 3.

¹⁰³ Bos 1984, *inter alia*, pp. 1-47, *et passim*. See also Magnússon 2003, pp. 71-101.

¹⁰⁴ Originally published in 1984. See further: Bos, M.: *A Methodology of International Law*. T.M.C. Asser Instituut – The Hague. Elsevier Science Publishers B. V. North-Holland, 1984. Bos 1984.

2.2.3 This study

When I refer to the method, methodology or methodological approach used in this study, I am referring to the theoretical prerequisites upon which the study is based, its line of argumentation and the reasoning premising its legal conclusions. Since one of the study's objectives is to develop a theoretical framework – an external theory – or environmental law methodology for international law research, the above provides the foundations for the study's theory and method. As stated in the *Introduction*, the study does not represent a main stream, legal dogmatic method. Moreover, several systemic law studies have inspired its methodology.¹⁰⁵

2.3 International law research

2.3.1 The sound of silence

Scholars covering international environmental law – and international law in general for that matter – are surprisingly silent on the theories and methods they apply, or serve as frameworks for their research.¹⁰⁶ The legal problems that are being elaborated are usually thoroughly analysed and described, critical questions are brought forward and interesting issues problematised. On the other hand, the underlying theoretical basis and methodology are somewhat neglected and seem to be taken for granted by many.¹⁰⁷

Quite a few general legal theories have however established themselves in international law and international law research. What exactly it is that distinguishes them from one another is perhaps not easily identified. But some of the variables are of general interest for the development of ELM for international environmental law. This justifies the following discussion that aims to demonstrate that theoretical choices are available when international law affecting the environment is under scrutiny. Furthermore, international law acknowledges *new* legal theories, some of which have developed as a re-

¹⁰⁵ See further chapter 3.

¹⁰⁶ See an overview of several theoretical approaches to international law in Symposium on Method in International Law 1999, pp. 291-423.

¹⁰⁷ See also Koskeniemi 1989, p. xiii.

sponse to a particular theoretical demand, due to some inherent limitations or alleged inherent limitations of the ruling theories.

2.3.2 Some examples

2.3.2.1 Positivist theories

If it is possible to state that one legal theory more than any other dominates both the practice of and research in international law, then it is the one based on *positivist theories*. There are, of course, several of these theories, each placing its emphasis on different theoretical questions and problems. Furthermore, they are not static. They develop as new theorists continue to bring forward new questions and theorise new problems. Many of the positivists' theoretical foundations have however been present for a considerable time, from the emergence of classical theorists such as J. Bentham (1784-1832) and J. Austin (1790-1859), to modern ones, e.g. H. Kelsen (1881-1973), H. L. A. Hart (1907-1992) and beyond.¹⁰⁸

As an example, H. Kelsen introduced his *pure theory of law* (in German: *Reine Rechtslehre*) – in essence law free from morals – the *Grundnorm* and the hierarchy of norms. He was, furthermore, very much occupied with the normativity of law. Kelsen's views influenced international law as did his theoretical foundation. He saw the relation between the international legal system and national systems influenced by monist doctrine and claimed that the *Grundnorm* of international law had its origins in customary law.¹⁰⁹

One of positivism's common denominators is how it emphasises the separation of laws and morals – not to be understood as rejecting the influence of morals on the substance of law – and objectivity in the application of law.¹¹⁰ In Hart's own words:

“...we shall take Legal Positivism to mean the simple contention that it is in no sense a necessary truth that laws reproduce or satisfy certain demands of morality, though in fact they have often done so.”¹¹¹

¹⁰⁸ See further: Bix 2006, pp. 31-63, *et passim*.

¹⁰⁹ *Ibid.* pp. 55-60.

¹¹⁰ Some theorists even claim that the latest developments are moving positivism closer to natural law theory, and *vice versa*. See further Bix 2006, p. 51, quoting R. Shiner's *Norm and Nature. The Movements of Legal Thought*, New York, Oxford University Press, 1992.

¹¹¹ Hart 1997, pp. 185-186.

In the early days, some positivist theories came up against difficulties with international law and the international legal system as such – the classical question being whether international law was really law since it did not meet Austin’s criteria for law. He argued that international law reflected international morality – a definition that few scholars pay much attention to nowadays.¹¹² This might however just be the case, at least in some fields of international law.

Hart’s influential theory on the concept of law – largely introduced in *The Concept of Law* – had problems with the international legal system. The core of the problem was the rule of recognition. International law as Hart saw it only marginally met its criteria. Hart nevertheless acknowledged international law to a certain extent, even though he saw it as only representing primary rules. Rule of recognition relates to the question of how one identifies legal rules, and which institutions have the competence to enact such rules, but also ultimately, to whether or not courts will accept them. Hart saw international law as related to customary obligations and not automatically accompanied by positive rules on interpretation or by mechanisms for the determination of disputes on how such rules should be applied. All the same, Hart finally acknowledged that the international legal system was undergoing a transition due to increased treaty making and, therefore, the system was coming more into line with national legal systems.¹¹³

A typical legal method of international law under the positivist schools would describe and analyse international law on the basis of traditional views on the sources and place treaty and custom in the foreground. Furthermore, formalistic and disciplined construal techniques in the determination of valid law and in legal argumentation are positivist hallmarks. Explicit state consent is emphasised, since, as they would argue, states are only bound by those commitments that they have explicitly accepted or follow as valid law.¹¹⁴

¹¹² *Ibid.* pp. 26-28.

¹¹³ *Ibid.* pp. 213-237, and also pp. 79-99.

¹¹⁴ See further an overview provided by Bix 2006, pp. 72-77.

2.3.2.2 International legal process

American *legal process* developed in the 1950s, H. M. Hart jr. and A. M. Sacks are usually named as pioneers.¹¹⁵ American legal process found its way into international law and A. Chayes, T. Ehrlich and A. Lowenfeld are usually named as the founders of the so-called *international legal process*.¹¹⁶ The theoretical framework is based upon positivism, but places its emphasis on *how* international law works, and the framework is, *inter alia*, meant to complement positivism. Concurrently it criticises its formalities and the demand of legitimacy in the application of international law.

As the reference to *process* indicates, the main emphasis is placed on understanding how international rules are applied by the makers of foreign policy rather than highlighting either their substance or the “study of international law in its actual operation”¹¹⁷. Due to the so-called *normative deficit* – or the question: *what is law for?* – new legal process materialised in the 1980s placing more emphasis on normative values – often referred to as the *new public law*. The new development also found its way into international law research¹¹⁸ where values, such as environmental protection and human rights, have been named as being worthy the protection of the international legal order.¹¹⁹

2.3.2.3 Policy-oriented jurisprudence

International law is familiar with the so-called New Haven School or *policy-oriented jurisprudence* that can be traced back to 1935. H. D. Lasswell and M. S. McDougal are usually named as founders.¹²⁰ According to this, law is viewed as a “process through which members of a community seek to clarify and secure their common interests.”¹²¹

¹¹⁵ See further: *The Legal Process: Basic Problems in the Making and Application of Law*, ed. by W. N. Eskridge jr. and P. P. Frickey, West Publishing Company, Westbury, New York, 1994.

¹¹⁶ See further: *International Legal Process: Materials for an introductory course*, eds. Chayes, A., Ehrlich, T., Lowenfeld, A. F., published by Little, Brown, Boston, 1968.

¹¹⁷ Symposium on Method in International Law 1999, p. 334.

¹¹⁸ H. H. Koh has indicated the applicability of the new legal process to international law. See further note 5, on p. 335, *ibid.* listing many of Koh’s work.

¹¹⁹ See further an overview of the main characteristics of the method, *ibid.* pp. 334-339, and *passim*.

¹²⁰ See further: *Jurisprudence for a Free Society: Studies in Law, Science and Policy*. Springer US, 1992.

¹²¹ Symposium on Method in International Law 1999, p. 319.

The school has criticised several aspects of the positivist method, such as the reliance on the past, *i.e.* the method of relying upon words agreed upon in a particular context, in solving problems, which arise in different circumstances. The emphasis is placed on connecting the law and its interpretation to current policies.¹²² It has been stated that “policy-oriented jurisprudence provides methods for tracking the development of law, criteria for appraising its contribution to clarifying and securing the common interest, and procedures for improving its performance in any community.”¹²³

2.3.2.4 Critical legal studies

Critical legal studies stand for several theoretical approaches – sometimes referred to as the critical legal studies movement. They are sharing common themes, many of which are connected to the legal process and radical views on law.¹²⁴ The school has criticised liberal legal theories, such as positivism, *cf.* H. Kelsen and H. L. A. Hart, and also the right-based theories of R. Dworkin, J. Finnis and J. Rawls.¹²⁵ The essence of the criticism involves the idea of standards such as “the notion that there is one single “truth” and that by disclosing the all-pervasive power structures and hierarchies in the law and legal system, a multitude of other possibilities will be revealed, all equally valid.”¹²⁶ Aspects of critical legal studies, also criticising positivism and its methodology in the application of international law, have found their way into international law discourse. Koskenniemi – sometimes named as one of the contributors – argues, *inter alia*, that international law and international politics represent two sides of the same coin.¹²⁷

¹²² *Ibid.* pp. 316-321, and *passim*.

¹²³ *Ibid.* p. 381.

¹²⁴ The origins of critical legal studies can be traced back to the US and the radical civil rights’ and anti-war movements of the 1960s. For an overview, see McCoubrey/White 1999, pp. 225-249.

¹²⁵ See *e.g.* Dworkin’s *Law’s Empire*, Dworkin 1998, and also *A Matter of Principle*, Dworkin 1985. Finnis on the other hand is usually categorised as a natural law theorist. See further coverage in Bix 2006, pp. 72-74.

¹²⁶ McCoubrey/White 1999, p. 226.

¹²⁷ See further: Symposium on Method in International Law 1999, pp. 351-361, and also McCoubrey/White 1999, pp. 224-249.

2.4 Short discussion

The theories that I have briefly introduced above – with the exception of positivism – are often either critical of some features of positivist theories or meant to further and complete them. Some of them take into account non-legal or external factors as part of their approximations. Others place their focus on how international law and the international legal system actually work or strive to explain how and why. What the above approaches have in common is that they are *all* applicable in international law research.

This brings me to the obvious conclusion that there are choices in legal research. Furthermore, the nature of the legal discipline and the actual problems under scrutiny should have an effect on the choice. The theories are nevertheless open to criticism, and have been criticised and theoretically debated by many. In my opinion structural criticism underlines the proposition that one method or one theory view do not necessary further legal research or the search for new angles and legal solutions.

Questions such as *What is being researched?* and *What is it that the researcher is striving to illustrate?* seem however inevitable.

If a research project has the objective of demonstrating how the international legal order actually affects a non-legal object (biodiversity in this study), a systemic approach based upon ELM seems a more appropriate way of achieving this, than merely describing and analysing the rights and duties of states. The latter is of course the usual focus of international legal research, with the clear exception being human rights. This approximation does not, however, give much information on how the system affects the object of the regulation. Biodiversity is after all situated outside the law. And obviously biodiversity is not capable of enjoying legal rights or bearing duties in the traditional meanings of these terms.

It is however possible to influence the behaviour of states via the instrument of international law. It is also possible to further ones understanding of how the multi-levelled international legal system affects objects that are, eventually, meant to benefit from the regulation. One avenue is to work on, and develop, new external theoretical methodology for legal research.

2.5 Theory-method-methodology-flow

Based on the sections above, figure 6 below introduces the *theory-method-methodology-flow*. The background area A-B suggests any legal theory and method, which, at least for the time being, influences the development of ELM for international law. Box C indicates any theory, methodology and external facts (legal and non-legal) influencing the development and the substance of ELM for international law research. The parallel box, D stands for the objective of regulation, in this study the object is biodiversity in nature as a fundamental factor in the realisation of ecological sustainability. E illustrates how these two fundamentals, or C and D, fuse. F stands for the objectives that are being problematised by the study (or any study) by relying upon ELM for international law and box G reflects the conclusions. Finally, the arrow H, showing the movement from box G to box E, illustrates how the conclusions should contribute to the furtherance of ELM for international law research.

The following chapters bring further theoretical particles into the spotlight, thus shedding more light on the content of the model in figure 6.

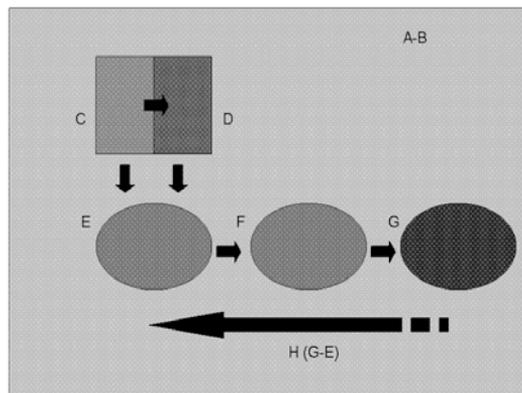


Figure 6

2.6 Concluding remarks

My aim with this chapter was primarily to contribute to the study's theoretical background. Its purpose was not to represent an exhaustive or original coverage of legal theory and international law. The chapter demonstrated that international law offers several theoretical frameworks and lines of argumentation as starting points. They are viewed in this study as alternatives to a mainstream dogmatic, usually positivistic theory-based, method. However, researchers do not always discuss this and seemingly, in many cases, use of the mainstream methods is taken for granted. Some key theories of international law were briefly introduced.

Non-legal and external factors can, and should, play an important part in legal argumentation and reasoning. Theoretical alternatives based upon such factors can contribute to the furtherance of understanding of how a multi-levelled international legal order actually affects a particular objective that is subject to international regulation. The very existence of alternatives has generally influenced the development of ELM for international law research as an external theoretical approach.

One of the conclusions that is possible to draw from the above relates to the search for alternatives that are perhaps better capable of taking into account the factual situation and how common objectives can be reached in the society of states. Theoretical frameworks and methodologies can be chosen, or developed, so as to better match the problems under scrutiny in each case. Finally, as the first step in explaining the study's methodology metaphorically, section 2.5 introduced figure 6. All in all, the problems under scrutiny should point the way to the solution.

3. Methodological motivations

3.1 Introduction

“The greatest enterprise of the mind has always been and always will be the attempted linkage of the sciences and humanities. The ongoing fragmentation of knowledge and resulting chaos in philosophy are not reflections of the real world but artifacts of scholarship.”¹²⁸

As was touched upon in the *Introduction*, I have doubts about whether the legal approaches which the bulk of textbooks and articles on international law affecting the environment hold are sufficient. Thus I have placed an emphasis on a search for and development of a usable theory for international law affecting the environment. However, nothing comes from nothing. Three methodological approaches have had a decisive influence on the present study: First, Staffan Westerlund’s ELM; second, Torstein Eckhoff and Niels Kristian Sundby’s theory on legal systems, and third, Michael Decleris’ systemic approach to the laws of sustainable development.¹²⁹ Although different, both Westerlund and Decleris have developed usable theory for environmental law research. Eckhoff and Sundby on the other hand, are known as general legal theorists.

To further the study’s theoretical background, I will in this chapter introduce the main features of the theoretical approaches of the above researchers and discuss how they relate to, or have influenced the development of ELM for international law research. In line with the above, section 3.2 introduces the main aspects of environmental law methodology. Section 3.3 follows, covering some of the fundamentals of Eckhoff and Sundby’s general theory on legal systems. Finally, in

¹²⁸ Wilson 1998, p. 8. Readers will probably note that Wilson refers to *humanities*. Even so the passage should not be understood as excluding legal science although habitually categorised as being one of the *social sciences*.

¹²⁹ Westerlund, Eckhoff and Sundby and Decleris are either directly or through others influenced by William Ross Ashby’s systems theory. Ashby is considered the most influential theorist of the 20th century in the development of cybernetics and complex systems.

section 3.4, I will introduce the basics of the laws of sustainable development as they have been set forth by Decleris. A short discussion follows whose purpose is to highlight how each theoretical approach relates to or influences the development of EML for international law research. In the chapter's last section, section 3.5, I will set forth some concluding remarks.

3.2 Environmental law methodology

3.2.1 Introduction

Westerlund began elaborating environmental law methodology in the late seventies.¹³⁰ Its theoretical framework builds upon extensive research of the Swedish legal system.¹³¹ It is furthermore inspired by the legal developments that took place in the US in the early seventies,¹³² the complexity of sustainable development, and finally, a profound understanding of the principal laws of nature and thermodynamics. ELM's theoretical framework holds a general value and is applicable in all environmental law research. As previously stated one of my aims with the present study is to contribute to the development of ELM for international research. That view justifies giving a rather comprehensive coverage to the ELM basic profile.

3.2.2 Basic profile

3.2.2.1 Some fundamentals

The methodology's point of departure is how to achieve and maintain the objective of ecological sustainability.¹³³ Ecological sustainability is viewed by ELM as

¹³⁰ See further the study's bibliography.

¹³¹ See his doctoral thesis titled in Swedish: *Miljöfarlig verksamhet. Rättstekniska studier av de centrala tillåtlighetsreglerna i miljöskyddslagan på grundval av teori och praxis*. Westerlund 1975.

¹³² Notable pieces of US environmental legislation are: (1) Endangered Species Act, 16 U.S.C. § 1531 (1973) (ESA), (2) Clean Water Act, 33 U.S.C. § 1251, (1977), and (3) National Environmental Policy Act, 42 U. S. C. § 4321 (1970) (NEPA).

¹³³ Westerlund 2007, p. 1.

“the situations and conditions in the biosphere that are sufficient for sustaining mankind for innumerable generations to come with reliable and safe resilience, including full biodiversity.”¹³⁴

ELM’s basic profile is constituted of particular fundamentals. The most important ones are its unique line of reasoning, particular principles and several, important models. The methodology relies directly upon external prerequisites and connects them to legal discussion and argumentation. In this respect, ELM provides a general theoretical framework applicable in all environmental law research.¹³⁵

Apparently ELM does not challenge any established theoretical basis of law, at least not directly. To provide a concrete example, the methodology does not challenge or propose any particular view on the concept of law. Nor does it make any attempt to alter or diminish the value of conventional doctrines on the legal sources, or how they are hierarchically prioritised in a particular legal system.¹³⁶ As a theoretical foundation and a methodological approach in law, ELM can thus be applied regardless of one’s views on the philosophical or ideological foundations of law.

In my view, the last stated argument is subject to an important qualification associated with the role of law. Thus, as long as one subscribes to the view that law represents an important instrument for purporting desirable objectives into human society and for influencing human behaviour to obtain and maintain those same objectives ELM can be relied upon.

As will be further elaborated in chapter 6, I also view sustainable development as an overarching objective consisting of three core principles: The principle of ecological sustainability, the principle of societal sustainability, and the principle of development.

¹³⁴ *Ibid.* p. 635.

¹³⁵ The approach, with variations, has been effectively used in studies where valid law – more precisely, valid international environmental law on pollution – has been targeted, *cf.* Ebbesson’s study on the compatibility of international and national environmental law, Ebbesson 1996. It can also be useful in studies where the development of new environmental law and how to make it operational in a legal system is the subject under scrutiny, *cf.* Gipperth’s study on the quality norms, *cf.* Gipperth 1999.

¹³⁶ The hierarchical order would presumably be similar in most democratic states, even though some variations could definitely be pointed out, depending on the respective legal culture and customs.

3.2.2.2 Environmental consequences

As I view ELM, its quintessence is *how* it strives to point out weaknesses in law and legal systems as they *are*, or at least, as they are generally accepted to be. Thus ELM brings to the forefront arguments that related to *how* the establishment of law and legal orders actually works for the environment. In this respect the content of law and how legal systems actually work become significant factors in the operationalisation of environmental objectives. ELM draws attention to the consequences – and here lies the essence – for the environment and the realisation of ecological sustainability.¹³⁷

The concepts of sustainable development and ecological sustainability play a decisive role in ELM's application. ELM views these concepts as anthropocentric, in the sense that human beings are in the centre of all decision-making.¹³⁸ As such, human interests, social, economic, environmental *and* ecological sustainability become indistinguishable. This does not, however, change the fact that the two latter are *premises* for the other components (social and economic) and for the future of human beings.¹³⁹

3.2.2.3 Rule of law but not rule by other means

Environmental law methodology's *legal environment*, so to speak, is a typical rule of law state.¹⁴⁰ That is to say, ELM has as a background a modern democratic state where "everyone, even the state itself, [cannot] ... go outside the law in their decisions and conduct".¹⁴¹ Further: "its authorities, must not exercise any authority against what you intend to do, if there is no law serving as a foundation for such a measure against what you intend to do."¹⁴² Due to rule of law and the

¹³⁷ This conclusion is drawn from various comments and models introduced by Westerlund. See e.g. Westerlund 1997, pp. 43-66, 90-96 and *passim*; Westerlund 2003, pp. 33-39, 71-81 and *passim*, and Westerlund 2007, pp. 46-58 and *passim*.

¹³⁸ This is the situation when humans and mankind as such are the focus of attention. Westerlund 2007, p. 633. See also Principle 1 of the Rio Declaration and items 1, 2 and 8 of the Johannesburg Declaration.

¹³⁹ I will be tackling the controversial issue of weak and strong sustainability and other ideological dilemmas of sustainable development in chapter 6.

¹⁴⁰ See: Westerlund 1997, pp. 117-124, and Westerlund 2007, pp. 46-58. Westerlund is presumably relying upon Raz's version of the ideal. However he does not transparently cite Raz in so many words. See further on the Rule of Law: Raz 1977, pp. 195-211, and e.g. Gíslason 1983, pp. 66-72, citing *inter alia*, Raz 1977.

¹⁴¹ Westerlund 2007, p. 47.

¹⁴² *Ibid.* p. 48.

principle of legality,¹⁴³ the state and its authorities are restrained “from arbitrary and legally unfounded conduct against natural and legal persons.”¹⁴⁴

Rule of law and not rule by other means is thus a fundamental factor of ELM. This raises, *inter alia*, questions on the legal status of particular environmental goals (objectives) and principles and their legal operationalisation. This emphasis should not come as a surprise to anyone. Obviously the behaviour of the various actors will not legally be influenced or constrained nor will the fundamental institutions of society be legally activated, unless the goals have been made legally operational. As a general rule, legally binding rules are necessary in this respect and in most cases the diverse rules of conduct would be relied upon as means of operationalisation.¹⁴⁵ Otherwise rule of law becomes meaningless.

3.2.2.4 Competing interests

Another important factor that influences ELM's legal environment is the constitutional protection of particular human rights. In most democratic states, property rights and the right to commence and conduct economic activities are examples of rights that enjoy a constitutional protection. In the balancing of the competing interests, *i.e.* those which enjoy such protection against environmental ones,¹⁴⁶ the former would prevail. That would be the conclusion where the constitution in question did not hold particular provisions relating to the status of the environment. Another deduction would run counter to the fundamental principles of any democratic state and be contrary to the rule of law.¹⁴⁷ This is how law actually works. This function can in some instances, as is argued under ELM, counteract the possible legal protection of the environment.

¹⁴³ See further: Westerlund 1997, pp. 117-124, and Westerlund 2007, pp. 46-58. See further on the Rule of Law ideal: Raz 1977, pp. 195-211.

¹⁴⁴ *Ibid.*

¹⁴⁵ Of course, other kinds of rules, such as procedural rules, play a part in this process although they are not discussed here.

¹⁴⁶ The Swedish Constitution now contains a particular constitutional provision relating to sustainable development. So does the Norwegian Constitution, *cf.* Article 110b, and the Finnish one, *cf.* its Article 20.

¹⁴⁷ This is obvious from; *inter alia*, Westerlund 1997, pp. 125-140.

3.2.2.5 Active legislating and legal techniques

ELM is developed against active legislating activities in the field of environmental protection. The different quality (quality and quantity) standards play an important role in this development.¹⁴⁸ These standards are particular first and foremost since they are binding upon the authorities but may also be meant to protect the legal rights of individuals.¹⁴⁹ International biodiversity law rarely contains quality standards.¹⁵⁰ On the other hand, several examples of quality standards are found within EC environmental law, particularly in the field relating to pollution. In many instances these standards have been inadequately implemented and enforced at the national level.

An example from EC environmental law illustrates some of the problems related to the above. In Case C-361/88¹⁵¹ one of the issues disputed was the legal instrument that Germany used for the incorporation of directive 80/779/EEC on air quality limit values and guide values for sulphur dioxide and suspended particulates.¹⁵²

The directive fixes limit values and guide values for sulphur dioxide and suspended particulates in the atmosphere in order to improve the protection of human health and for the protection of the environment.¹⁵³ The duty of the member states is to take appropriate measures to ensure that limit values and guide values are not exceeded.¹⁵⁴ The Commission challenged, *inter alia*, the instrument used for the incorporating as well as the limited scope of the implementation. The instrument was a technical circular on air. The Commission argued that the circular was not mandatory under the German legal system as well as being more limited in scope than the directive since it was only applicable to particular industrial plants.¹⁵⁵ The ECJ concluded that the directive had "not been transposed into the national legal system in such a way as to cover all the cases capable of arising and that the national rules [had] not ... the binding nature necessary in order to satisfy the requirement of legal certainty."¹⁵⁶

¹⁴⁸ Environmental quality standards are used as a reference to particular kinds of rules that may bear different names but have as a common denominator that they lack a traditional addressee and relate to some kind of desirable environmental quality or the quality of components of the environment. Gipperth 1999, p. 142.

¹⁴⁹ See further Gipperth 1999, pp. 37-54 and also pp. 139-160. See also Jans/Vedder 2008, p. 137.

¹⁵⁰ See further on quality standards chapter 7.

¹⁵¹ Case C-361/88 *Commission v. Germany* [1991] ECR I-2567.

¹⁵² OJ L 229, 30.8.1980, p. 30, with amendments.

¹⁵³ Directive 80/779/EEC on air quality limit values and guide values for sulphur dioxide and suspended particulates, Article 1.

¹⁵⁴ *Ibid.* Articles 3-12.

¹⁵⁵ Case C-361/88, paras. 11-13.

¹⁵⁶ *Ibid.* para. 30.

3.2.2.6 Substantive provisions

I will now turn to more traditional substantive provisions of environmental law. Often individual provisions leave some discretion for the competent authorities to choose the interests that are eventually made part of the balancing process. At times they will only be guided by proportionality and other general principles of administration law. As viewed by ELM, reliance upon proportionality in decision-making is lacking a connection to the multi-generational dimension of sustainable development – the concept's vertical dimension.¹⁵⁷ Moreover direct balancing against future needs and non-linear biosphere makes substantive proportionality impossible to define. Thus, proportionality becomes unsuitable for implementing the basic rationale behind sustainable development.¹⁵⁸

As I comprehend ELM, the most effective way out of this dilemma is to structure, with some accuracy, the substance of the individual provisions of law. Accuracy will both contribute to the enhancement of environmental objectives and support legal security. Moreover, the diverse substantive provisions (rules of conduct) are necessary to ensure that the quality standards have the intended effects.

If EC environmental law is focused upon there seems to be a growing tendency to structure the individual provisions of directives as either open-ended or as framework provisions. As some have pointed out this may contribute to cost effectiveness. However, the technique can diminish the possible legal operationalisation of environmental objectives, as well as the possibilities of relying upon the doctrine of direct effect. It furthermore affects enforcement possibilities as well as being challenging legal security.¹⁵⁹

The need for accuracy of substantive environmental rules can be demonstrated with an example from EC environmental law, *cf.* Case C-236/85.¹⁶⁰ The case concerned the incorporation of directive 79/409/EEC on the conservation of wild birds¹⁶¹ (the birds' directive) into the Dutch legal system.

¹⁵⁷ See further chapter 6.

¹⁵⁸ Westerlund 1997 on p. 38, fig. 4; and pp. 94-96, pp. 102-111. See also Westerlund 2007, p. 42.

¹⁵⁹ See further, *inter alia*, Jans/Vedder 2008, pp. 176-177.

¹⁶⁰ Case C-236/85 *Commission v. Netherlands* [1987] ECR I-3989.

¹⁶¹ OJ L 103, 25.4.1979, p. 1.

One of the issues raised was whether the implementation of Article 9 of the directive fulfilled the requirements of the TEC. Article 9(1) allows for conditional derogation (“where there is no other satisfactory solution”) from certain provisions of the directive. It also provides particular criteria which the derogations are to be based upon. The Commission argued that a particular provision of the Dutch legislation (Article 10 of the Vogelwet) did not fulfil Article 9(1). Netherland’s counterargument was that the permits issued on the basis of Article 10 were only issued in line with the criteria laid down in Article 9(1) and that the administrative practice was restrictive. The ECJ concluded on this point that “the wording of Article 10 of the Vogelwet, unlike Article 9(1) of the Directive, does not make the grant of permits conditional upon the absence of any other satisfactory solution.”¹⁶²

The acceptance of open-ended and framework provisions is a development that is also taking place in international environmental law, *inter alia*, international biodiversity law. See further chapter 7.

3.2.2.7 Proactive approaches

On scrutinising ELM’s theoretical basis, instruments and approaches one cannot avoid noticing their progressiveness. Several instruments and functions of ELM are thus usually labelled as proactive. The opposite would be reactive. Hence, under ELM a reference to *proactive research* first and foremost indicates a methodological approximation where the emphasis is placed on problematising in advance instead of reacting to something that has already arisen in legal practice. Legal dogmatic approaches would fall under the latter. Thus confining legal research basically to legal facts and findings that have already arisen one runs the risk of conferring past experiences onto the solution of new problems. Proactive instruments as part of ELM should also be mentioned. Under this category fall citizens’ enforcement, the precautionary principle and precautionary functionality *ex ante*. Application of these instruments should support the realisation of ecological sustainability and the 2010 target.¹⁶³

Other researchers would and could prioritise other qualifications. However, in the context of this study’s subject-matter and objectives, I deem the above to be the most important ones.

¹⁶² Case C-236/85, para. 13.

¹⁶³ Westerlund 2007, pp. 469-502 and p. 641, and Westerlund 2008, particularly pp. 55-64.

3.2.2.8 Other distinctive characteristics

In addition to the characteristics that I have now described, several others can be singled out as hallmarks of the methodology. They also provide certain premises:

First, the emphasis on realising that legal systems are linear-systems and totally different from natural systems. The latter are non-linear and driven by forces of nature.¹⁶⁴ The former are man-made, to a high degree predictable – by many viewed as closed systems.¹⁶⁵ Man-made linear systems can deliberately be altered or adjusted to new circumstances. The latter ones, on the other hand, are non-linear and open systems, to a large extent unpredictable and they only react according to the laws of nature. Needless to say the laws of nature cannot be altered or adjusted by humans although individual natural resources can be managed by the same. Nonetheless, anthropogenic impact influences the environment that reacts accordingly.¹⁶⁶

Second, the necessity of having a fair understanding of the natural phenomenon that is to benefit from regulation and the basic principles of law of nature.¹⁶⁷ If this factor is neglected, the researcher runs the risk of not fully comprehending the full effects of legislation. This factor is the reason for chapter 1 on biological diversity and the emphasis on Hardin's tragedy, *cf.* chapter 7.

Third, the inclusion of several external factors, that in one way or another, have an effect on the overall environmental status as well as adding to non-linearity. The very existence of these factors can influence how legislation, eventually, affects the environment. One such obvious factor is the size of the human population and its non-linear growth.¹⁶⁸

Fourth, the concept of sustainable development and the fact that this kind of development differs from other forms of development,

¹⁶⁴ See *e.g.* the new modelling on the complex dynamics of Lake Mývatn's ecosystem and the effects of human interference (diatomic mining on the lake's bottom) on midge populations and the productivity of the lake that resulted in lack of vital food resources and a serious reduction in the lake's trout stock. See further: Ives/Einarsson/Jansen/Gardarsson 2008, pp. 84-87.

¹⁶⁵ Attention is also drawn to Eckhoff and Sundby's approach on legal systems, further elaborated in section 3.3. They view legal systems as open systems.

¹⁶⁶ See *e.g.* Westerlund 1997, pp. 43-51; Westerlund 2003, on pp. 33-39, and Westerlund 2008, pp. 47-64.

¹⁶⁷ See further: Westerlund 1997, pp. 41-51; Westerlund 2003, pp. 16-32, and Westerlund 2007, pp. 4-33.

¹⁶⁸ See, *inter alia*, Westerlund 2007, pp. 4-5 and *passim*. See furthermore chapter 1.

inter alia, due to its multi-dimensional scope and the acceptance of ecological limits.¹⁶⁹ EML views sustainable development as a broad and an overall objective. In order to make it legally operational, it must be broken down into sub-objectives, as many as necessary, and only then can the necessary substantive obligations be reflected in positive law.

Fifth, for decades, classic environmental law has relied upon concepts such as environmental damage, threat of damage, significant damage, serious consequences and injury etc., to the environment or the interests of other states.¹⁷⁰ This conception is, *inter alia*, premised on the notion that environmental degradation can be linked to particular events, operations and activities. This kind of an approach fails to take into account both natural resilience and how gradual degradation of the environment and its components is. To connect this directly to the scope of this study, general biodiversity loss is one type of environmental degradation. Hence ELM places an emphasis on the principle of non-degradation and the law and legal orders should, at the very least, not legally allow for environmental degradation.¹⁷¹

The sixth and the last mentioned element (there are of course many, many more) is the methodology's instrumental approach¹⁷² and how important it is to advance environmental law from a systemic point of view. It is equally important to realise how laws – not only the ones that have been labelled as *environmental* – and legal systems actually work with respect to the environment and the operationalisation of environmental goals.

3.2.3 The action-reaction relationship

ELM places an emphasis on the necessity of having a fair understanding on *how* law actually influences the environment via the addressee or the actors. Under international law the principal actors would be states. Due to the importance of the action-reaction relationship I

¹⁶⁹ See further: Westerlund 1997 in particular pp. 23-42; Westerlund 2003, pp 23-35 and *passim*, and Westerlund 2007, pp. 119-132.

¹⁷⁰ See further chapter 8.

¹⁷¹ See, e.g. Westerlund 2007, *inter alia*, pp. 44-45, 53-54, 60 and *passim*.

¹⁷² ELM relies upon terms such as *flexible instrumental approach* and *soft instrumental approach* or *method*, when referring to law as a tool or instrument for achieving particular objectives; cf. *inter alia*, Westerlund 2007, on pp. 115-116.

deem it important to give ELM's action-reaction model some attention. The model facilitates and enhances the understanding of how law influences the environment. The same goes for other models that I will introduce in the following sections.¹⁷³

But first the action-reaction model.

The essence of the model is presented in two parallel boxes. The left one, A; represents the actor side, and the right one, B, the reactor side. The movement of the arrow A-B, from left to right, is to indicate how left side activities and actions, that are conducted and controlled by human beings, have an effect on the status of the right side. That side however, which is the environmental side, only *reacts* to the actions and activities that take place on the left side.

The reversed arrow B-A, which points from right to left, illustrates how the feed-back factor functions. Thus the content of box A needs to be changed depending on the environmental situation or the status in the right side box B. The arrow B-A carries that information. Typically the legislation that is to influence and control the various actors would be changed. Eventually the changes should have effects on the right side and support ecological sustainability.

An important factor, also necessary to have in mind, is that included in the right side, box B, are also human beings as objects and, as such, part of nature. A typical human *reaction* to actions and activities of the left side A, would be health problems or damage due to pollution and hazardous substances or, *e.g.* famine due to crashes in ecosystems and diminishing food supplies.

¹⁷³ See further Westerlund 2003, p. 36, and pp. 33-39.

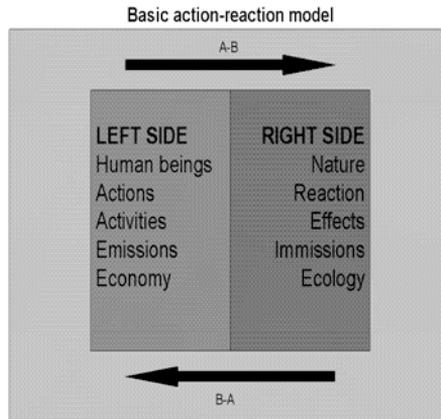


Figure 7¹⁷⁴

Westerlund argues that the bulk of all environmental legislation is action-oriented. Thus, when viewed by ELM it is only partially capable of responding to the situation on the right-hand side, or B side. The opposite would be effect-oriented legislation. As a general rule, effect-oriented legislation would take the form of quality and sometimes quantity standards. In many instances, the focus is set on regulating only the actions (rights and duties) or what is allowed or not often in concrete terms but without any ties or connections to the situation on the right-hand side. On the other hand, effect-orientated legislation places the focus on the acceptable environmental results or quality, and the actions have to be tailored so as to respond to these limitations.¹⁷⁵ To enact new environmental legislation does, therefore not always result in enhanced environmental quality or the enhancement of the situation on the right side B.

I concur with the above theory. In chapter 8 I will be highlighting and discussing this problem, first, in relation to the fundamental principles that are of interests for this study and second, in chapter 9 in relation to international biodiversity law.

¹⁷⁴ Without the arrows A-B and B-A, figure 7 reflects the model in Westerlund 2003, p. 36.

¹⁷⁵ See; *inter alia*, Westerlund 2003, pp. 33-39.

3.2.4 Different kinds of deficits

ELM theorises a factor, which is increasingly being given attention in legal research, namely the implementation deficit. This term is used to describe a situation where there is a difference between environmental objectives and actual environmental results.¹⁷⁶

Obviously, only humans (states also depending on the legal order) can be the addressees of law and only humans can implement and enforce law. There, however, is a long way from the law as such and whether it is actually capable of influencing human behaviour.¹⁷⁷ Equally important is whether law will eventually support the realisation of ecological sustainability and the 2010 target.

The failure of law in this respect can be explained by theorising several factors and functions of law. Some of them relate to how individual provisions are structured, that is the actual structure of the provisions plays a role as Ebbesson argues.¹⁷⁸ Others relate to how law is applied and eventually enforced.¹⁷⁹ There is a particular kind of flow of factors present here.

Hence, deficits play a considerable role in ELM. By describing them and realising why they occur, one is more able to comprehend *how* law actually works with respect to the environment. This realisation also furthers ones understanding of law and legal system efficiency, or rather their deficiency, as instruments of environmental control. This crystallises in the necessity of understanding why it is that perfectly acceptable environmental goals (objectives or policy) are not achieved.

3.2.4.1 Implementation deficit – models

In order to further the understanding of how law actually influences the environment and its components, I will now introduce another key ELM model, to illustrate implementation deficit.¹⁸⁰ The back-

¹⁷⁶ Westerlund 1997, *e.g.* pp. 52-66, and Westerlund 2003, pp. 194-245.

¹⁷⁷ Of course, law is not the only medium in this respect, is it, however, the only practical instrument if the actors do not voluntarily change their behaviour, which is often the case. The role of law will be particularly elaborated in chapter 7.

¹⁷⁸ See further Ebbesson's theory on the compatibility of international and national environmental law, Ebbesson 1996, in particular pp. 101-179.

¹⁷⁹ See further Westerlund 1997, *e.g.* pp. 52-66, and Westerlund 2003, pp. 194-245.

¹⁸⁰ Westerlund introduced the idea first in Westerlund 1987. See further Westerlund 1997, pp. 52-66; Westerlund 2003, pp. 63-70, and finally, Westerlund 2007, pp. 153-165. Westerlund points out that a similar concept in English: *legal leakage* (in Swedish: *juridisk läckage*) had been introduced in Sweden by Gregor Holmgren in "Rättsliga

ground model is the basic action-reaction model, previously introduced.

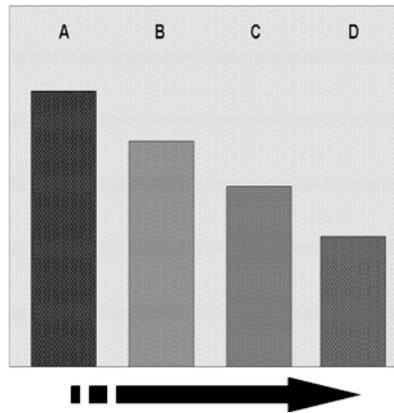


Figure 8¹⁸¹

In the focus here are the achievement and legal operationalisation of environmental goals (objectives or policy) and the obstacles that stand in the way of their full realisation because of their reliance upon means of enforceable legislation. To avoid confusion, legislation also contains actor-related goals that are also made effective by law. A typical actor-related goal would be one tied to the technical requirements that particular industries were obliged to meet in order to reduce, minimise or eliminate pollution. Well known requirements in the pollution prevention field are requirements on the uses of best available technologies.¹⁸²

I will now explain each of the columns A, B, C and D, of figure 8. The first one, A, illustrates concrete environmental goals, for example

aspekter på markanvändning – vattenkvalitet”. Fleischer and others: *Markanvändning – vattenkvalitet. En studie i Laholmsbuktens tillringsområde*. Länsstyrelsen i Hallands län 1989. See also Westerlund 1997, *e.g.* p. 54.

¹⁸¹ Apart from the arrow A-D, the figure is meant to reflect the fundamental idea of figure 13, in Westerlund 2007, p. 162.

¹⁸² See *e.g.* Convention for the Protection of the Marine Environment of the North East Atlantic, 32 ILM 1069 (1992), the OSPAR Convention, where the contracting parties take on several general obligations such as the one on the use of the latest technological developments and practices in order to prevent and eliminate pollution and to apply best available techniques (BAT) as well as best environmental practice (BEP). See further the OSPAR’s Article 2(3)(b)(i).

ecological quality standards¹⁸³ and particular sub-goals that are, eventually, to materialise in the environment, that is in D, through the medium of law, B, and other institutions of society C. The second column, or B, therefore reflects the legal deficit and the role of enforceable law in legally operationalising the goals of A. The third column, C, stands for compliance and how law is otherwise enforced by the competent institutions of society. Finally, D reflects the results or how the environmental goals in A eventually materialise in the environment. If however the environmental goals do not have the anticipated effects on D, then an implementation deficit has occurred. D's height is therefore shown lower than A's in figure 8. This is to indicate what has been lost from A to D. Furthermore, there is a particular kind of connection or flow between A and B and C and D, see further figure 8.

¹⁸³ Precise standards of this kind are seldom present in international biodiversity law and should not be confused with general objectives which are often stipulated in treaties on international biodiversity. A general quality standards would, *inter alia*, be the one present in Article 2 of the Straddling Fish Stocks Agreement, which stipulates that the objective is to "ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks", and also the approach in Convention on the Conservation of Migratory Species of Wild Animals (1979), 19 ILM 15 (1980), the Bonn Convention, referring to favourable and unfavourable conservation status of a migratory species, *cf.* Article 1, that is more precise. Although not perfect, EC environmental law holds more usable standards relating to biodiversity, see *e.g.* articles 1, 2, 3 and 4 of the birds' directive where the population is to be maintained "at a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements, or to adapt the population of these species to that level" *cf.* Article 2. And furthermore, the approach in the habitats' directive, Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora, OJ L 206, 22.07.1992, p. 7, implementing the Bonn Convention's standard of "a favourable status", *cf.* Article 1, and furthermore by providing definitions and explanations on how to determine the status. See further chapter 9.

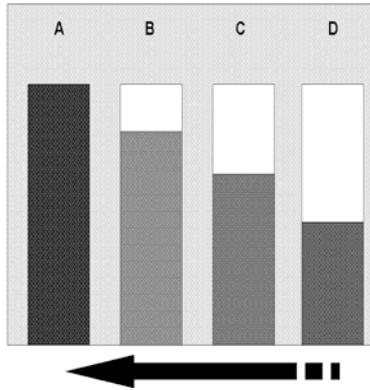


Figure 9¹⁸⁴

At the same time each step reduces the height of the next column, and figure 9 illustrates the area (the upper part of columns B, C and D, the white area) or the hypothetical size of each deficit. The arrow with the direction D-A carries new information on D to A.

Finally, I stress, that under ELM the original goal, A, must not be changed or lowered. Instead the emphasis must be placed on how to make B and C more effective in order to achieve an acceptable result in D.

3.2.4.2 Reasons for deficits

The reasons for the deficits are several. It is true that in order to legally operationalise an environmental goal and to influence the actors' behaviour, the most important instrument would be law, column B in figure 8. Law's substance is therefore meant to reflect the environmental goals set in A in normative terms, or at least, the goal needs to be supported by law.

However, as Westerlund argues, two of ELM's basic concepts, (1) the non-linearity of natural systems, and (2) the legal operationalisation of goals for non-linear systems by relying upon the instrument of linear law, must be clear in one's mind in order for one to fully comprehend the above flow and why deficits occur.

The former, non-linearity, underlines the complexity. Contributing to the non-linearity are cumulative and synergetic effects as well as

¹⁸⁴ See further Westerlund's model in Westerlund 2003, p. 69. The arrow indicating the flow D-A is here added.

the diverse threshold effects that occur in nature, nature's carrying capacity and natural resilience. The environmental impacts are therefore almost never linear or reasonably foreseeable.¹⁸⁵ Furthermore, ecosystems are neither closed systems nor free from diffuse external effects.

As a consequence of non-linearity, the latter or the legal operationalisation of environmental goals by using linear law, deficits can be expected between A and B. This is basically due to the formal and linear nature of law and the techniques that are relied upon when the diverse rules of conduct are structured. The reason is presumably some kind of a lack of understanding of the non-linear nature of D.

The next deficit, the compliance and enforcement deficit is the loss between B and C. This deficit is of a different nature than the other two. It relates on the one hand to the actors' compliance with the rules in B, and, on the other, to how the competent social institutions enforce enforceable law. Other reasons, such as miscomprehension, mistakes, negligence contribute to both B and C, widening the gap between A and B, and the enforcement or compliance deficit, or the difference between B and C.

Finally, D illustrates the overall results when the flow from A to B and B to C has taken place as well as what will eventually take place in D or the status of the environment. If the difference between the initial goal in A, and the results in D is thought to be considerable, an implementation deficit exists since only a portion of the environmental goals of A have been achieved in D.

3.2.5 Environmental control and the three filter theory

I will now introduce the three filter theory of ELM. The theory is best understood in relation to different means of environmental control and the question of what it is that eventually directs or controls the actors when they are in the preparatory phase of their decision-making. I will explain the basic rationale of the theory and its model reflected (figure 10) below. P represents any project (activity, action, production of goods, placing goods on the market, etc.) that an actor plans and that will eventually have environmental effects.

¹⁸⁵ This is the basic argument behind all precautionary approaches.

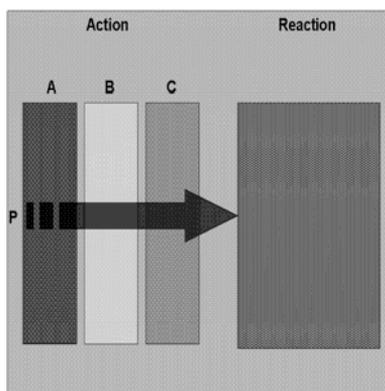


Figure 10¹⁸⁶

The first filter, A, illustrates morals or ethical views, B economic feasibility, and the final filter, C, the law and legal systems. The three filter model is placed into the actor-reactor relationship, previously introduced. The three filters, A, B and C, are all on the left side of the actor-reactor model, while, as usual, the environment is on the right side, the reaction side.

Some actors would not have proceed with their actions or activities if they had realised what the environmental effects of this would be. It would be a moral or an ethical choice not to continue and to disregard economic gains or the question of whether the activities were legal or not. The first filter, A in figure 10, illustrates this situation. If however, an actor were to decide to proceed, he would next calculate whether the undertaking would be economically feasible and likely to produce financial gains. If this were not the case he would probably not proceed.¹⁸⁷ The second filter, pillar B, is the economic filter. If an actor came to the conclusion that a particular activity was economically sound then he would investigate whether it was legally acceptable, at least not contrary to law. The final filter, pillar C, repre-

¹⁸⁶ See further the models in Westerlund 1997, p. 21, Westerlund 2003, p. 50, Westerlund 2007, p. 149.

¹⁸⁷ In the early days of genetic engineering, biological organisms were genetically altered (GMOs and LMOs) long before any legislation had been enacted controlling such activities.

sents the law. How law actually functions is however interesting. If the planned activity is banned by law, obviously the actor cannot proceed, regardless of whether he is able to pass filters A and B or not. However if the law is silent on the issue or if no particular substantive rules are found to exist banning or otherwise controlling the planned activity then the actor can legally proceed due to the rule of law and how the default functions. Thus, the actors would normally not refrain from activities or operations with environmental impacts unless they were particularly prohibited or otherwise controlled by substantive law that is to say if they had passed the two other filters, A and B.¹⁸⁸

An understanding of the filter theory and its underlying rationale are important in relation to the role of law in a rule of law order. Due to the rule of law of the international legal order and its default functions, the ruling legal situation, would be that states are perfectly free to undertake the activities that they choose unless the activity has been explicitly outlawed. This applies even though such activities may have adverse environmental effects that transcend state borders. Only rules clearly prohibiting the activities would limit this. Furthermore, it would be difficult to demonstrate under international law that activities, legally undertaken within state borders, and apparently free of transnational environmental effects, were contrary international law.¹⁸⁹

3.2.6 “... *dixitque Deus fiat lux et facta est lux* ...”¹⁹⁰

3.2.6.1 An overall objective

As I mentioned earlier, environmental goals (objectives and policies) play a fundamental role in modern environmental law.¹⁹¹ In this respect it is fair to state that sustainable development represents an overall objective.¹⁹² Of its sub-goals, I view ecological sustainability as the most important one.¹⁹³ There under would I place the 2010 target.

¹⁸⁸ See further: Westerlund 1997, pp. 13-22; Westerlund 2003, pp. 46-56, and Westerlund 2007, pp. 147-150.

¹⁸⁹ See further chapter 8.

¹⁹⁰ “and said God let there be light, and light was made”. First book of Genesis, verse 3.

¹⁹¹ Jóhannsdóttir 2007c, pp. 359-362.

¹⁹² The concept of sustainable development and ecological sustainability are elaborated in depth in chapter 6.

¹⁹³ See further the study’s opening chapter.

There seems, however, to be some degree of misunderstanding of the nature of the objective of sustainable development and how it can be achieved in reality and made legally operational.

Let there be sustainable development!

Obviously it is not enough to declare or order sustainable development or incorporate these words into the text of all international regimes.¹⁹⁴ Sustainable development is more complex than that. Moreover, such an approach also indicates some degree of misunderstanding of the role of law and how law actually works.

Here, ELM can come into play. As I have previously pointed out, ELM takes its point of departure in ecological sustainability and views sustainable development as an overarching objective. Its high and general status however, necessitates that the concept be further elaborated by defining as many sub-objectives (or sub-goals) as necessary. Only when this definition has taken place is it possible to make sustainable development legally operational and effective.

If figure 8 above is considered, column A would reflect each of the objectives or sub-goals and column B how they have been made legally operational. This is done by defining their substance by means of word (commands) that will eventually become legally binding and enforceable rules.

Some of them are rules of conduct, describing how the diverse addressees (actors) are to behave. Others are rules of competence dictating who has the necessary powers to take decisions. Some relate to procedures, and finally some to quality standards related to the environment, usually by defining a particular quality and sometimes quantity of recipient.¹⁹⁵ Without rules making the objectives legally operational, the environment (D) is unprotected, to refer again to figure 8 above.

¹⁹⁴ Jóhannsdóttir 2005, p. 27 ff.

¹⁹⁵ This method has been developed in EC environmental law for some time. See *e.g.* the approach in Directive 2000/60/EC establishing a framework for Community action in the field of water policy, OJ L 327, 22/12/2000, pp. 1-73, cited as the EC water-framework directive from now on. Apart from the water-basin approach incorporated in the directive, its main thrust lies in its environmental objectives that have been set for different kinds of water. See further the directive as a whole and particularly its articles 1, 2 and 4.

3.2.6.2 Further on objectives – flow charts

One of the tools that ELM provides for realising what is needed when objectives or goals are made legally operational is a vertical flow-chart,¹⁹⁶ see further figure 11 below. Due to the overarching goal's generality, a narrower objective, or a particular sub-objective needs to be identified. Otherwise the overall objective runs the risk of becoming too general, a mere meaningless slogan. It is therefore indispensable to state a first sub-objective (or goal), *cf.* level 1 in figure 11. For the sake of argument the overall objective could be full biological diversity and the realisation of the 2010 target. This kind of an objective is usually also too general to be able to provide the actors with the necessary guidance.

Thus, and for the sake of further argumentation, quality standards should be defined. They can relate to particular organisms, *e.g.* particular water-dependent species. The aim is that the species should continue to thrive and reproduce. In order to ensure the future of the species and full biological diversity, the quality of the water must also be given attention. Therefore, on level 3, the necessary water quality needs specification. Without the necessary water quality, the targeted species will not survive, nor will its dependent ecosystem. This is still not enough, since a threshold criterion, or how much pollution the recipient can naturally cope with, also needs definition, *cf.* level 4. Yet again, this is not enough since the rules that would reflect the objects on levels 3 and 4 are not typical rules of conduct and do not have a traditional addressee. Consequently, other levels of the vertical flow-chart, particularly levels 5 and 6, and must be connected to levels 3 and 4.

Emission standards for the diverse polluting substances originating from nearby activities (stationary or point sources) also need definition. That would take place on level 5. The usual method would be to tailor individual operating licences and industrial processes to emission standards. However, other kinds of protective measures must also be reflected in the rules of conduct, this would be level 6. Typical level 6 measures are rules dictating the use of particular tech-

¹⁹⁶ Attention is drawn to the fact that Westerlund, usually, has pollution and polluting activities as a premise for this modelling although the final target of conservation may be biological. This does however not diminish the fundamental idea that is valid as a general theory. See further the figures in Westerlund 1997, p. 45, and also Westerlund 2003, p. 99.

nical solutions or processes. Requirements on the use of BAT would be typical in this respect.

Still the flow is not complete. Level 7, therefore, refers to environmental control. Such control is usually the responsibility of public authorities and increasingly, it is the public's'.¹⁹⁷ The scope of the control is as a rule two fold and covers both the implementation of the environmental quality standards (levels 3-4), inspection of the emission limits and the application of the protective measures (5-6). Finally, the legal framework must include the necessary mechanism capable of enforcing all enforceable rules, *cf.* level 8.

This is briefly what the vertical chart-flow stands for:¹⁹⁸



Figure 11¹⁹⁹

3.2.6.3 The usefulness of flow-charts

The basic flow-chart in figure 11, is particularly useful when overarching and general objectives are being made legally operational. The chart provides the principal steps that have to be considered in

¹⁹⁷ See particularly Article 9(3) on citizens' enforcement in Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (1998), 38 ILM 517 (1999), known as the Aarhus Convention. See also Jóhannsdóttir/Tómasson 2008 on this particular issue, pp. 74-75.

¹⁹⁸ See further Westerlund 1997, pp. 43-51, and Westerlund 2003, pp. 95-100.

¹⁹⁹ Westerlund 1997, p. 45, and Westerlund 2003, p. 99.

order to ensure successful operationalisation within individual legal orders. The chart furthermore facilitates a holistic overview and provides an opportunity for analysing where the implementation of objectives (goals and policies) may be going wrong or, as post analysis, has failed.

3.2.6.4 Flow-chart for biodiversity

In section 3.2.6.2 I introduced a flow chart, *cf.* figure 11. It is particularly designed for pollution prevention although aimed at biodiversity as well. In order to have a holistic view of how the realisation of the 2010 target can be theorised a new flow-chart, is introduced, *cf.* figure 12.

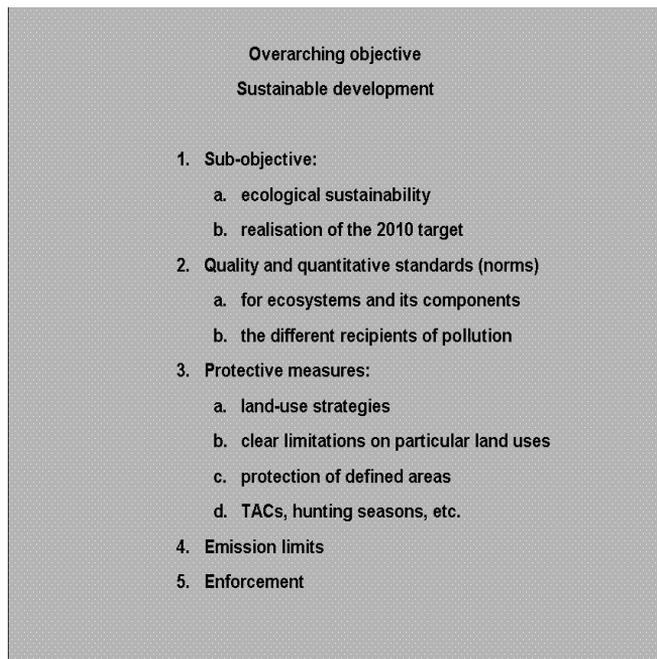


Figure 12

The new one contains five levels. Level one represents, first, the sub-objective ecological sustainability, and second, the objective of full biodiversity and realisation of the 2010 target. This approach is still too general to be able to support the realisation of the objectives.

At the second level, the necessary qualitative and quantitative goals need to be defined. Moreover, they must become part of the operational part of the respective international treaties. The method that could be used here is to structure particular framework provisions, and ordering the respective COPs to work on and accept the necessary quality standards. Moreover, the legal effects of COP decisions need to be clarified. The same needs to be done for the diverse recipients of pollution that in one way or another provide the necessary preconditions for biodiversity.

At the third level, different kinds of protective measures need to be elaborated, including the necessary rules of conduct. This, *inter alia*, is necessary to ensure the functioning of the quality norms. Some of the rules of conduct are already present in international biodiversity law. However, others are not. For example, clear limitations on how land is generally used are not present in international biodiversity law. Furthermore, even though particular defined areas have been protected, international biodiversity law does not prevent states from reducing such areas or even cancelling their formal protection.

The fourth level is traditional in the polluting sector. Even so, only in a few instances does international law relating to the environment provide clear cut emission limits. On the other hand, such limits are frequently relied upon EC environmental law.

The fifth and final level relates to enforcement. International enforcement mechanisms are sometimes found in international biodiversity law. When available, they are usually in the form of general recommendations. International treaties relating to biodiversity need to be strengthened in this respect. To have the intended effects, international obligations need to be made a component of the national legal systems. At the national level, each state is responsible for the enforcement of national regulations.

3.2.7 Available studies based upon and developing ELM

Several doctoral dissertations and a number of articles have been published where some form of ELM has been relied upon. The individuals that have hitherto applied ELM have basically used the approach to work on problems relating to how existing laws affect the

environment and how to develop environmental law so as to further the realisation of sustainable development.

The first example mentioned here, is Jonas Ebbesson's approach in *Compatibility of International and National Environmental Law*²⁰⁰ based upon his doctoral thesis from 1995. One of the study's objectives is to improve the conception of international obligations in the field of international environmental law. In line with this, a theory on the subject is set forth. It elaborates five types of normative structures in international regimes on pollution and pollution control as well as criteria for implementation into national legal systems.

The second work that I draw attention to is Jonas Christensen's study, based upon his doctoral thesis from 1999: *Rätt och kretslopp. Studier om förutsättningar för rättslig kontroll av naturresursflöden, tillämpade på fosfor*.²⁰¹ Christensen sets the emphasis on one substance, phosphorus, and how it flows in nature and in society, and investigates various legal techniques that are meant to protect and control the substance.

The third example is Charlotta Zetterberg's thesis: *Miljörettslig kontroll av genteknik*.²⁰² Zetterberg analyses Swedish law and practice in the field of genetically modified organisms and whether it can be characterized by a precautionary approach. Her basic question is whether genetic engineering promotes, is neutral to, or is counteracting the outcome of the Rio Conference and the objective of sustainable development. One of her findings is that even though Swedish legislation builds upon the precautionary approach, the legislation available is nevertheless counteracted by several factors that are found in the legal system, *inter alia*, the lack of detailed rules.

Finally, Lena Gipperth's doctoral thesis: *Miljö kvalitetsnormer. En rättsvetenskaplig studie i regeteknik för operationalisering av miljömål*²⁰³ scrutinises a particular type of norms – environmental quality standards – and analyses several legal instruments that could be relied upon for the attainment of environmental quality objectives. One (of

²⁰⁰ See Ebbesson 1996.

²⁰¹ The English title is: *Law and Ecocycles. Studies of the preconditions for legal control of the flow of natural resources, applied to phosphorus*. See further: Christensen 2000.

²⁰² English title: *Control of genetic engineering in Environmental Law*. See Zetterberg 1997.

²⁰³ *Environmental goals. A study in legal technique aimed at the operationalisation of environmental goals*. The title's translation into English is mine. See further: Gipperth 1999.

several) important conclusions represented in Gipperth's thesis relates to the so-called navigational norms, that is the rules reflecting the quality objectives or the quality standards, which depend upon other norms, or rules of conduct for their full operationalisation.

3.2.8 How does ELM relate to this study?

As outlined in the *Introduction*, I aim to elaborate a theory framework in order to provide the theory of the default significance with the necessary background. I had choices when it came to developing that particular background. One obvious direction would have been to follow the mainstream. Another was to search for a methodological approach that has been developed, *inter alia*, on the basis of sustainable development and problems relating to its legal operationalisation. ELM is such a methodology.

Even though ELM was originally developed on the basis of extensive legal research into a particular national legal system, its fundamentals are nevertheless usable for international law research in general, including for international biodiversity law.

Firstly, the international legal system, international law and its application builds upon the rule of law.²⁰⁴

Secondly, international law affecting the environment has grown considerably over the last two decades. However the realisation of new environmental objectives is in many instances not visible in the environment. International status reports only partially support a conclusion to the contrary.

Third, there is constant competition of interest within the international legal system, which affects the possible impact of new international regulation in the environmental field.

As pointed out in section 3.2.2 on ELM's basic profile, the methodology's distinctiveness lies in its unique line of reasoning and several important models. Furthermore, external prerequisites play a part in its structure, factors that will eventually have an effect on how law actually works for the environment.

One of the most interesting features of ELM for the present study is how it draws to the foreground the environmental effects of traditional legal approaches by offering a methodological approximation

²⁰⁴ Further elaborated in chapter 4.

that is capable of explaining such consequences and why they occur. Part of this is the way in which the methodology makes clear the non-linear nature of ecological processes and the difficulties incurred when the instrument of linear law is used as a tool to realise environmental objectives. Furthermore, the rule of law ideal must be clear to the researcher. If not, the methodology will not make much sense.

Some of the models introduced in section 3.2.4, will be further elaborated on and modified for application to international law research, *cf.* chapter 4.

As I comprehend ELM's basics, the methodology cannot successfully be applied unless the researcher has acquired a profound knowledge of law, not only environmental law, and how legal systems actually work. ELM moreover provides an opportunity to understand the effects of commonly used research methods and offers a fresh methodological profile for environmental law research.

All of these issues now introduced, relate in one way or another to the development of the methodological approach of this study as will become apparent at a later stage.

Finally, one issue needs to be made clear, that is what ELM does *not* stand for. ELM cannot be described as a *back-mirror research*²⁰⁵ method – a term used of research when the main emphasis is placed on describing valid law in order to establish the legal situation in abstract or particular cases. I concur with Westerlund's view that too much emphasis on this method in environmental law research entails the risk of causing temporal transference of old perspectives and values. Past experiences are drawn unnaturally into the future when one uses them to theorise on new problems or problems which perceptions have altered.²⁰⁶ The obvious danger here lies in the formation of a schism and a perception deficit between the present reality and how things were previously conceived.

ELM in general, and its models, such as the action-reaction model, when applied in conjunction with a systemic approach to law can help to highlight the strengths and weaknesses of environmental law as it actually works, as well as providing new perspectives on environmental law research. These, in turn, can be relied upon for the structuring of new environmental legislation.

²⁰⁵ Basically, legal dogmatic. See further the study's *Introduction* and chapter 2.

²⁰⁶ Westerlund 1997, pp. 8-22. See also a discussion in Westerlund 2003, pp. 366 *ff.*

3.3 Eckhoff and Sundby's theory on legal systems

3.3.1 Introduction

As outlined in section 3.1, I consider certain features of Eckhoff and Sundby's theory on legal systems to be of importance for the development of ELM for international research. The reason is partially due to their reliance on system theories as such and partially because these also provide me with a means of legitimizing and further underpinning my approach in this study.

3.3.2 Main features

Eckhoff and Sundby's main momentum is provided by general system's theories and in particular by theories on open, dynamic and self-regulating or self-adjusting systems.²⁰⁷ These systems are able to comprehend and process new information (*e.g.* goals) and adjust accordingly so as to respond to changes. Hence the systems have the ability to react to changes that take place outside the system, so to speak.²⁰⁸

Eckhoff and Sundby argue that the activities that take place within a legal system can be divided into several categories. These are mainly legislative decisions (law), judgements and particular administrative decisions.²⁰⁹ The context and interaction between different kinds of norms²¹⁰ and activities provide the systems with the necessary substance to make them capable of explaining what legal systems actually stand for. The activities both enhance and clarify the substance of different kind of norms. Eckhoff and Sundby furthermore challenge the prevailing legal practice of viewing legal systems as static and closed phenomena.²¹¹

They also view legal systems as open, dynamic, and to a certain extent self-regulating or self-adjusting systems, but systems which,

²⁰⁷ Eckhoff and Sundby outline the principal theorists on pp. 33-42 in their book, most being either mathematicians or biologists and some of them are actually influenced by William Ross Ashby. Theory on legal system is published in revised form, in: *Rettsystemer. Systemteoretisk innføring i rettsfilosofien*. Second edition from 1991. (Eckhoff/Sundby1991). That publication is relied upon in this study.

²⁰⁸ Eckhoff/Sundby 1991, pp. 32-33.

²⁰⁹ See further Eckhoff/Sundby 1991, pp. 12-15.

²¹⁰ To which Eckhoff and Sundby devote the major part of their theory, see further Eckhoff/Sundby 1991, pp. 46-131.

²¹¹ *Ibid.* pp. 11-27.

nonetheless, have their limitations. The negative feed-back factor is for preserving their balance and re-newability. Legal systems are composed of different kinds of norms and activities that interact and respond to particular inputs.²¹² For example, new societal objectives represent such inputs. At the same time they reflect changes in society. Finally, each system produces outputs²¹³ that will eventually have legal effects and other influences in society.²¹⁴

Thus the so-called feed-back²¹⁵ factor plays an important part in Eckhoff and Sundby's theory as well as, eventually, in ELM.²¹⁶ It constitutes an important feature that is a fundamental premise for the self-regulating or self-adjustment function of legal systems. The feed-back factor transports the information for the adjustments that have to be made each time. That influences the input into the legal system and eventually the substance of the output. Hence, the product of the system, the output, influences society and that, in turn, influences the substance of the input that has an effect on the activities within the legal system that in return influences the output that has an effect on society, etc.²¹⁷

²¹² In Norwegian: *tilførsler*.

²¹³ In Norwegian: *produkter*.

²¹⁴ See further: Eckhoff/Sundby 1991, pp. 16-45, and 132-154, *et passim*.

²¹⁵ In Norwegian: *tilbakekobling*.

²¹⁶ Attention is drawn to the fact that the "feed back" is more complex than I indicate here. Further information on this factor and its role in system theory and as part of understanding non-linearity and exponential growth in several contexts, *e.g.* in relation to population growth and economic growth, is provided by *inter alia* by Meadows/Meadows/Randers/Behrens III 2005, pp. 15-23.

²¹⁷ Eckhoff/Sundby 1991, pp. 27-33, *et passim*. See particularly figure 1 on p. 27.

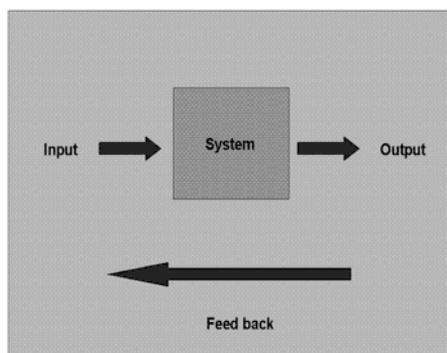


Figure 13

Figure 13 above, reflects the fundamental idea of legal systems, inputs, outputs and feed back, as introduced by Eckhoff and Sundby.²¹⁸

3.3.3 The development of ELM for international law

The main thrust of Eckhoff and Sundby's theory is concerned with evaluating legal systems and the influences upon them by analysing what the systems consist of and how they operate as a whole. They furthermore encourage lawyers to utilise information and knowledge that has been developed in subjects other than law in order to comprehend how legal systems – norms and activities – actually operate, affect and are affected. In this respect they name social systems, economic systems, and other legal systems.²¹⁹

For many reasons, I deem Eckhoff and Sundby's theory important for the development of ELM for international law research, and particularly for a research that focuses on international biodiversity law.

First, their theory recognises the importance of factors which are situated outside all legal systems.

²¹⁸ *Ibid.* Figure 1 on p. 27.

²¹⁹ Eckhoff and Sundby point out other legal researchers who have put emphasis on similar factors, such as Åke Frändberg's in his article: "Om rättsordningars giltighet" in *Samfunn, rett, rettferdighet: festskrift til Torstein Eckhoffs 70-årsdag*, published in 1986. Frändberg 1986, pp. 323-334.

Second, to understand the feed-back factor is particularly useful since it explains how the system's focus is influenced by social, economic or other factors. Further how the feed-back carries the information that enables legal systems to react to changes that constantly occur, not in law but outside of the system.

Third, Eckhoff and Sundby underline the danger of lawyers relying upon isolated description and evaluation of law and legal systems. Thus they encourage further cross sectoral dialogue and co-operation.

Finally, the core of system theory of law, the feed-back function and theory's importance as a basis increases the opportunities for presenting realistic information on the international legal system and on the legal operationalisation of ecological sustainability and the 2010 target.

As I comprehend Eckhoff and Sundby's theory it would nonetheless be reflecting the left side of the action-reaction model previously introduced in section 3.2.3. In my view that does not diminish the general value of their theory for ELM.

3.4 Decleris: the laws of sustainable development

3.4.1 Introduction

Decleris' theory was developed from the practice of a particular court in Greece, where Decleris served as judge. The court had to apply imperfect or non-existent environmental legislation in deciding upon issues relating to sustainable development.²²⁰ His approach is apparently also inspired by the New Haven School, or policy-oriented jurisprudence.²²¹

3.4.2 Main features

As I see it, the core of Decleris' theory is two folded: First, it builds upon as well as being reflecting the fundamental principles of systemic thinking. This is the principle that says that any control system needs to be as advanced and complex as the objects it controls. Sec-

²²⁰ See further: Decleris 2000, pp. 10-15.

²²¹ *Ibid.* p. 9. See also chapter 2.

ond, the theory's twelve principles that Decleris regards as part of the rule of law concept. As Decleris argues, his approach represents the new environmental law, in contrast to the old environmental law, that is environmental law before the emergence of sustainable development.²²²

In his view, legal systems are not simply advanced as the static sum of all legal rules, but are rather systems, *capable* of reflecting the current environmental problems and their origins and in line with the very nature and core of sustainable development and sustainability.²²³ I concur with this view as a theoretical hypothesis.

3.4.2.1 Basic rationale

Decleris argues that the implementation of sustainable development law requires a large-scale systemic approach²²⁴ based upon value theory.²²⁵ He, *inter alia*, points out that the market has been regarded as a leading societal system.²²⁶ A large-scale systemic approach is necessary due to the very nature of sustainable development and sustainable development policies. They require broad range integration into all spheres of society. Decleris deems this kind of approach necessary, *inter alia*, due to failures in legal theory, basically the failure of the positivist approach, which, he argues, represents a one dimensional view and is therefore suitable only for the attainment of *paper law* solutions.²²⁷

Decleris furthermore insists that traditional legal methods²²⁸ are being too narrowly defined – the definitions are reductionistic, he argues. As he sees it, the role of law and lawyers has been reduced to interpretation and construction of the law. In Decleris' view this approach does not match the Aristotelian concerns for distributive jus-

²²² Decleris 2000, pp. 7-8.

²²³ See further *ibid.* p. 60 ff.

²²⁴ For clarification, Decleris is a lawyer and judge but also a professor in the science of large-scale systems (LSS).

²²⁵ It is unclear from Decleris' text whether he takes social value theory, economic value theory, or something else as a starting point. However, he is developing *systemic value theory* based upon sustainable development and sustainability. From that point of view, principles of sustainable development obviously play a decisive part in his theoretical framework and they, in a way reflect and prioritise values. See further: Decleris 2000, p. 44, *et passim*. See also chapter 6.

²²⁶ *Ibid.* p. 64.

²²⁷ *Ibid.* p. 7.

²²⁸ Presumably, a legal dogmatic approach based upon a positivistic theoretical foundation.

tice and it is something that is obviously affecting Decleris' theory as well as providing it a fundamental theoretical foundation.²²⁹ Therefore, as Decleris argues, legislation as such and the evaluation of its effects are either left to politicians or sociologists. Furthermore, the law, he maintains, has been made subservient to political expediency preventing it from fulfilling its prime role, or completing and establishing the rule of law. Law, that is old environmental law, can therefore not be relied upon as a protector of the environment and it does nothing for sustainable development, argues Decleris.²³⁰

3.4.2.2 Systemic approach

Decleris proposes as solution a systemic approach to law and to the fundamentals of systemic thinking, basically that any control system needs to be as advanced and complex as the object it controls. He points out Ashby's law that says that a *control crisis* arises when the problems – *nota bene* the environmental problems that are to be controlled – turn out to be more complex than the controlling systems, *i.e.* the legal system. Decleris emphasises that global environmental changes pose serious threats to current control systems, including legal systems. He therefore calls for more flexibility in decision-making and new and effective law and legal science.²³¹ Inspired by current flaws in legal theory and methodological approaches, he proposes a legal definition for sustainable development – a systemic definition. In his view sustainable development requires a legal system which is

“not a given and static sum of legal rules, but a dynamic system of legal decisions and acts at numerous and interwoven hierarchical levels, the supreme among which comprises the authoritative decisions of the International Community (in conventional, customary or regulatory form), next the statutory decisions (constitutional rules), and thereafter, on a descending scale, legislative, regulatory and individual decisions, and finally material acts.”²³²

Thus Decleris arrives at the conclusion that the mega-system of law needs to be a dynamic system, a legal system that is in constant mo-

²²⁹ Decleris is most likely referring to the debate that takes place in *Nicomachean Ethics* by Aristotle.

²³⁰ Decleris 2000, pp. 8-9.

²³¹ *Ibid.* p. 9.

²³² *Ibid.* p. 60.

tion and development due to a never ending flow of information and decisions. Therefore the emphasis has thus been transferred from legal rules to legal decisions.²³³ Finally, as he points out, “all problems of sustainable development have to do with large-scale systems”.²³⁴ Consequently they need to be solved by a compatible approach.

3.4.2.3 Prerequisites and twelve principles

In developing the theoretical basis for a systemic approach, Decleris sets forth three general prerequisites or general principles of sustainable development as he refers to them.

The fundamental prerequisites are the following:

1. Awareness of the world’s unity.²³⁵
2. Supremacy of ethical and cultural systems over other man-made ones, particularly man-made productive systems.²³⁶
3. Man’s stewardship over nature.²³⁷

These three general prerequisites go hand in hand with the fundamental prerequisites that lie behind this study and that are described in its introduction.²³⁸

In addition, twelve general principles – principles of sustainable development as Decleris labels them²³⁹ – are set forth as fundamental principles of the law of sustainable development, see further figure 14. In Decleris’ view these principles are, or at least should be treated as basic principles of the rule of law concept.

²³³ See further, *ibid.*

²³⁴ *Ibid.* p. 8.

²³⁵ *Ibid.* p. 63.

²³⁶ *Ibid.* p. 64. Decleris points out, *inter alia*, the ambition of the market to be a leading system of society, which he considers unreasonable, and that the main responsibility for the current environmental crisis is linked to this ambition. He also indicates that free trade principles are not compatible with the principles of sustainable development. See further *ibid.* p. 68.

²³⁷ *Ibid.*

²³⁸ See also Westerlund’s Miljörättsliga mikrotreser. Available on www.imir.com.

²³⁹ See further Decleris 2000, pp. 19-20, and for details, pp. 67-124.

(1) Principle of public environmental order.	(7) Principle of the mild development of fragile ecosystems.
(2) Principle of sustainability.	(8) Principle of spatial planning.
(3) Principle of carrying capacity.	(9) Principle of cultural heritage.
(4) Principle of the obligatory restoration of disturbed ecosystems.	(10) Principle of the sustainable urban environment.
(5) Principle of biodiversity.	(11) Principle of the aesthetic value of nature.
(6) Principle of common natural heritage.	(12) Principle of environmental awareness.

Figure 14

The geneses of these principles are found in recent international declarations, international action plans and environmental ethics.²⁴⁰ As a rule, these instruments are not considered to have traditional legal effects and are usually considered non-legally binding. However, it would be a methodological failure to deem them legally irrelevant. Their role is to provide a particular foundation for further legal development and the implementation of sustainable development law. Furthermore to strengthen the claim for co-evolution of man-made systems (legal systems) and natural systems, argues Decleris.²⁴¹ I concur with the above.

However, questions relating to the nature of the principles introduced by Decleris are inevitable. From the outset it is presumed that the dozen are considered to have a legal status, otherwise Decleris would not be tying them directly to rule of law naming them as principles of the law of sustainable development.

And here, perhaps, is the problem in a nutshell. I am in this study, *inter alia*, preoccupied with the legal operationalisation of environmental goals. Thus I hold some doubts on the nature of the principles that Decleris places in the focus. Even though some of them would be

²⁴⁰ The foundation is laid by the Rio Declaration, Agenda 21 as well as recent international regimes on the environment. *Ibid.* p. 7, *et passim*.

²⁴¹ Decleris 2000, pp. 14-18, 63-66, *et passim*.

considered legal principles under the international legal system, their status would probably be vague, not least where these principles would have to compete with some of the fundamental default principles.

An alternative perspective could be that even though Decleris is linking the principles to the rule of law concept and they are viewed as principles of the law of sustainable development by him, they could also have been viewed as general objectives. If this understanding is set in the focus, their legal operationalisation is nonetheless problematic.

3.4.3 How does Decleris' approach relate to this study?

As outlined in section 3.1, Decleris has developed a theoretical approach for sustainable development. Influenced by systemic thinking, it provides an interesting background that is relevant for the development of ELM for international law research. I view this approach as a shift from an analytical approach to law to a systemic approach to legal systems. Thus several fundamentals of Decleris' method influence the development of the method in this study.

First, the basic principle of the nature of controlling systems – the idea that the systems doing the controlling need to be as advanced and complex as problems that are being controlled. This matches the basic idea behind this study's methodological approach.

Second, Decleris provides sustainable development and sustainability with a particular kind of life by connecting their foundations to systemic thinking, and by providing sustainable development with a definition. Although I in this study take the stand that sustainable development should first and foremost be viewed as an overarching objective, the definition does, nevertheless, reflect a multi-levelled and a systemic approach to law.

Third, the view that all legal systems (national as well as international) represent dynamic, interactive control systems is particularly valuable for a study that seeks to theorise on international biodiversity law. It is true that the influence of international law is not as isolated as classical theories of international law usually claim. A study of international environmental law affecting the environment demonstrates this.

Finally, Decleris' emphasis on the rule of law and its implications connects new developments in law to the cornerstone of international law and its rule as understood by this study.²⁴²

3.5 Concluding remarks

As stated in the introduction, this study takes a methodological approach that is pluralistic and that only marginally reflects a mainstream legal dogmatic method. Its approach has been inspired by several legal theorists. This chapter's aim was thus to contribute to the study's theoretical background by providing insights into the approaches and their prerequisites that have been most influential.

Several characteristics of ELM were described and discussed. Most of them have influenced this study's methodological approach in one way or another. Some are to be further developed for a systemic approach to the international legal system in the chapters to follow. As already stated, ELM does not represent a typical dogmatic legal approach. On the contrary it offers an opportunity to research environmental law from a fresh, interesting and theoretical point of view. Even though ELM has its roots in a national legal order, I deem the methodology as such, its main principles and models as relevant for international law research that strives to evaluate and to approach the international legal order from a systemic point of view.

Eckhoff and Sundby's general theory on legal systems was introduced in section 3.3. In its simplicity, it provides, on the basics of general system theory, a valuable view of what legal systems stand for, what influences them and how they influence reality. One of the fundamentals that will be frequently relied upon in this study is the feed-back factor of legal systems as a medium for transporting information.

Finally, I introduced Decleris' systemic approach to the law of sustainable development. His theory is founded on the basic principle of system theory, which says that any controlling system needs to be as advanced as the object being controlled. Although Decleris does not answer all questions on the actual legal status of sustainable development his theory offers an interesting and informative avenue to

²⁴² *Ibid.*

enhance the understanding of what is necessary in order to fully implement sustainable development and legalise sustainability as part of the fundamental principles of law.

Westerlund's ELM and Decleris' law of sustainable development have a common target, namely the study of law and legal systems from the sustainability point of view. On the other hand ELM's action-reaction model is, *inter alia*, inspired by Eckhoff and Sundby's theory on legal systems. Finally, Westerlund, Decleris and Eckhoff and Sundby have apparently all been inspired by Ashby's contribution to systems theory. Although diverse, all the approaches mentioned above have some kind of systemic and instrumental view of law and legal systems in common.

4. The basics of the study's methodology

4.1 Introduction

" ... law is a human creation, meant to serve human purposes, and requiring human participation. Because of these aspects, understanding any social process, including law, will be different in kind from understanding processes which are purely physical, chemical or biological."²⁴³

The basics of the study's method lies in how it approaches the international legal order as overarching control system, composed of several, interacting international and national legal systems. The study regards the legal systems as controlling programmes, each having a more or less defined material scope and being subject to particular principles. As I outlined in the *Introduction*, the study's point of departure is the hypothesis that some overriding general principles of the international legal order may be counteracting or otherwise diminishing the possible realisation of ecological sustainability and the 2010 target. Also, as previously outlined, one of the study's objectives is to develop and adapt ELM for use in international law research. Thus it is the purpose of this chapter to develop and adapt some ELM fundamentals for the purposes of international law research as well as to introduce some new models that will be theorised at a later stage.

4.2 Old perspectives for new perceptions

4.2.1 General comments

Legal science is in many respects a discipline where old perspectives, experiences and values are applied to solving new problems, or prob-

²⁴³ Bix 2006, p. 40.

lems which are not necessarily new, but have gained new, or at least, different and perhaps more realistic perceptions. This kind of approach is usually considered to be the cornerstone of law and is justified on the basis of legal security, stability and predictability. The effectiveness of the application of past experiences to present problems is however highly questionable when it comes to the operationalisation of new environmental targets. In this respect Weeramantry's Separate opinion in the *Gabčíkovo-Nagymaros Case*²⁴⁴ is perhaps not so progressive after all. He, *inter alia*, underpins his arguments by referring to old, sometimes even ancient, experiences while arguing for new legal solution but for fundamentally different environmental and social circumstances.²⁴⁵

It is true that for the last decades, facts relating to the deteriorating state of biodiversity have earned general acceptance. The international legal response has manifested itself in new international regimes, such as the CBD and other biodiversity related instruments. This development does not, however, mean that a successful outcome has been achieved with regard to biodiversity in nature. Biodiversity's degradation is still the reality although some battles have certainly been won. This is why the 2010 target has earned acceptance.

To isolate, however, how law and legal systems actually contribute to this failure is not an easy task. In this respect the theory on the different kinds of deficits, introduced in chapter 3, is of importance. The theory explains what takes place from the time that environmental goal is accepted, A, until it finally materialises in the environment D. During this time a particular flow of obligations, rights and duties, from A to D takes place. This is one of the theories that will be adapted for application to international law, see further section 4.3.3.2 below. As previously outlined, the theory furthers the understanding of how law actually influences the environment via the active medium of law – B in the model, reflecting the legal deficits, and with the reliance of particular intuitions of societies, C. However, I deem it necessary to elaborate further on the above theory and some other theories of ELM and to adapt them for application to international law research. That will primarily be the task of the sections below.

²⁴⁴ *Case Concerning the Gabčíkovo-Nagymaros Project*, (Hungary/Slovakia). Judgment of 25 September 1997. ICJ Reports 1997, p. 7. (Cited as the *Gabčíkovo-Nagymaros Case*).

²⁴⁵ The *Gabčíkovo-Nagymaros Case*. Separate opinion of Vice-President Weeramantry, pp. 33-78.

Some readers may have the perception that enough environmental legislation has been accepted, and not only at the international level. That may be true. However, is the law working for the environment? Furthermore, does it support the realisation of ecological sustainability? In that respect an interesting piece of research by I. Carlman on the concept of adaptive environmental planning and instrumental problems relating to sustainability is worth mentioning here. She points out that “[t]he solution to a problem is not more of the same.”²⁴⁶

Carlman’s message is clear enough. It is not the quantity, but the quality of legal instruments and the norms they include that matters and how the same function within legal orders. It is therefore not only the task of this chapter to adapt some ELM fundamentals for international law research but also to lay down a foundation that I deem necessary for this development.

4.2.2 Is new methodology necessary?

Why should it be necessary to develop or apply a particular legal methodology when focusing on the legal operationalisation of ecological sustainability? Perhaps the strongest arguments against such an exercise can be found in the preposition that international law affecting the environment is after all just like any other branch of international law, and indeed subject to the principles of international law.

When new treaties relating to the problem have been agreed upon – even though they do not fully reflect what may be necessary from a scientific point of view – they nevertheless reflect how far the states are prepared to commit themselves, at a given time and in a given region. If no agreement is possible or if the substance of the individual treaty provisions become watered down in the negotiation process,²⁴⁷ then the international community has reached a decision that it is not going to go any further.²⁴⁸ It is just how international law is and to fight this would be a waste of time.

Many would agree with this description. It becomes however, a typical left-sided view when it is tied to the basic action-reaction

²⁴⁶ Carlman 2005, p. 161.

²⁴⁷ Like what happened during the negotiation on the CBD, see further on the negotiation process of the CBD, *inter alia*, Koester 1997, pp. 205-258.

²⁴⁸ The reasons can of course, be many other than concerns for the environment.

model, see further section 8.3. But what are the consequences for the environment in general? Even more importantly for this study: how does this affect biodiversity's future?

No law exists in a legal vacuum. It is a part of legal systems and orders. Thus the order as such and how it functions needs to be placed at the centre of research. The basics ELM can shed a light on how the international legal order functions for biodiversity in nature and the possible realisation of ecological sustainability.

4.2.3 Choices

The points that I have now raised were also chosen in order to illustrate that a research method that limits itself to a description and an analysis of law, gives a report on the substance of the law and the conclusions likely to be reached in given legal situations. Such approaches usually provide a thorough coverage of the content of rights and duties of states when particular legal problems are being elaborated. They do not, however, necessarily highlight the consequences for the environment when the legal content has been established. The question that I find most interesting therefore is the following: *is it justifiable to use a legal method that only partially reflects reality?*

Why draw the attention to the aforesaid?

The fundamentals of ELM can be of assistance here. Its principles and line of reasoning and how it transparently ties to facts and findings of other subjects provide an *opportunity* to comprehend *how* international law and the international legal order actually protect biodiversity; moreover *whether* the order is supporting the realisation of ecological sustainability and the 2010 target.

I am carrying this study out on the premise that by applying and developing certain features of ELM, the study's conclusions could actually increase the understanding of the international legal order and how it functions for biodiversity in nature and for the legal operationalisation of ecological sustainability, and where it may be failing to do so. Such information can be useful, both in developing new international standards and in cases where the existing ones are being construed and applied.²⁴⁹ Hopefully, the results of the study will also

²⁴⁹ See e.g. Westerlund 1997, on pp. 43-47, where he approaches the objective of sustainable development in a systematic manner in order to be able to translate the objective and its sub-objectives into workable legal standards. However, empirical

have a general value for other fields of international environmental law.

4.3 ELM for international law research

4.3.1 Generalities

Some issues need to be clear from the outset. The study elaborates its objectives by relying upon *valid* international law, *i.e.* the present international legal situation as it is generally accepted – including international biodiversity law. The study therefore builds upon international law construed in line with generally accepted legal methods. This includes decisions of international tribunals related to the study's objectives. Otherwise, the methodology applied could not be exercised and would not make much sense.

The study on the other hand only marginally involves itself with valid international law. The reason for this is two folded: First, public international law has been described and analysed by many legal scholars. The same applies to international law affecting the environment including international biodiversity law. Therefore, thorough descriptions are in my view not necessary in order to work on the study's objectives. Second, few if any of the available studies of international biodiversity law apply a systemic view. Finally, few if any studies in international biodiversity law apply ELM as a basis of theorisation.

In developing ELM for international law research, no established or mainstream theory of international law is being rejected. On the contrary, it is because of the *establishment* that the development of ELM may be useful when problems that relate to biodiversity and the realisation of ecological sustainability are highlighted.

In the sections that follow, I will introduce and discuss the basic prerequisites for the development of ELM for this study. Furthermore I will introduce and adapt some fundamental models in order to further understanding of the study's approach. Some of them will be relied upon at a later stage when particular problems are theorised.

studies indicate that effective implementation policies based upon the methodology can actually play a vital role in obtaining environmental objectives.

4.3.2 Multi-layered international legal order

4.3.2.1 Systemic view

As previously outlined, one of the study's objectives is to elaborate a theory framework on which the theory of the default significance can be based. Part I of the study contains the information that I consider essential both as a theoretical framework and as a necessary context.

I apply a systemic view. The international legal order is treated as an overarching control system. I view it as being composed of several, parallel and from time to time interacting, international and national legal systems (smaller control systems and sub-systems). When in operation, each of the control systems can potentially affect biodiversity. And the effects can be both positive and negative.²⁵⁰

Integral to systemic view, is the necessity of theorising legal situation when no particular regimes are available. Then, of course, the fundamental principles of each of the control systems apply. Many of these principles are either part of the general default of international law as such or considered principles of some or all of the control systems. In line with this, some fundamental principles of international law become central to the concerns of the study.

4.3.2.2 Several orders

Although one can rightfully refer to *an* international legal order, in fact there are several international legal orders. Moreover, each order might operate on a specific level. What the orders have in common however is that each of them can affect biodiversity, illustrated with the darkish area, B, on the right side of figures 15 and 16, and the operationalisation of ecological sustainability.

The figures below illustrate how I approach the international legal order and its inherent legal orders.

In figure 15 the principal international legal orders are illustrated as large arrows with the direction A-B, from left to right, which eventually affect the environment. Behind this lies the action-reaction relationship of ELM, see further chapter 3. To a certain extent the orders overlap. Furthermore, in operation they run in parallels.

Hence figure 15 illustrates a general flow of international obligations, A, rights and duties, that will eventually have an effect in B,

²⁵⁰ The multi-layered character of environmental control is apparently being analysed by several researchers. See further: Winter 2006, pp. 1-33, and particularly pp. 25-33.

that is the environment, positively or negatively. The reversed arrow B-A is to illustrate the feed-back factor. Thus the situation within B should have an effect on the substantial obligations on the left side. They should be changed if necessary in order to respond to the environmental situation in B. The feed back is to illustrate how the flow of new information on the status of B should eventually influence the substance of the controlling systems of A.

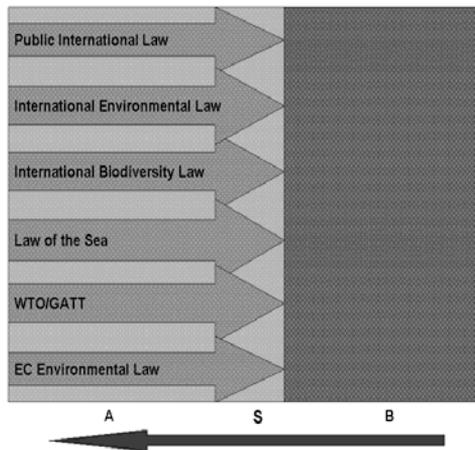


Figure 15

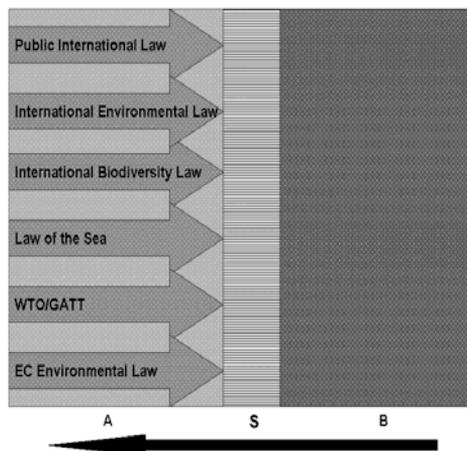


Figure 16

In figure 16, S, or the abstract state, has been added to the model. I have done this to illustrate two points:

First, the state functions as a particular kind of filter. Depending on the structure of the international obligation in question the state sometimes has the possibility to balance economic interests against other interests when incorporating the obligations into the national legal system. Here I have Ebbesson's theory on the compatibility of international and national environmental law in mind, particularly the parts dealing with the so-called balancing norms.²⁵¹ Second, the state is also seen as an active factor that will eventually have an effect on the situation within B when the implementation deficits are taken into account, see further below.

The feed-back arrow, B-A, is as usual to underline that the situation in B should have an effect on the controlling systems in A on the left side.

New control systems (new arrows) can be added or removed from the left side. For example, particular fields of international biodiversity law, *e.g.* regimes on GMOs and LMOs, and particular bilateral agreements, could be added. Last, but not the least, national legal orders and their inherent control systems could also become part of the model.

4.3.3 Deficits

4.3.3.1 Single deficit theory

In chapter 3, I introduced one of ELM's basic models and the theory of the different kinds of deficits. The model is based upon a national legal system. It illustrates how the different deficits play a role from the objective setting in A to B, where they are made legally operational, to C, where law is enforced, until, finally, the objectives materialise themselves, or not, in the environment D.

When the international legal order is theorised by relying upon the deficit theory, however, the situation is somewhat more complicated. If I continue to use the basic theory to illustrate a national legal system, I need another model, to illustrate the theory on the double deficit if I take the international legal order in my focus. Why?

²⁵¹ See further Ebbesson 1996, pp. 86-89 and particularly pp. 135-103.

4.3.3.2 Double deficit theory

First of all, international policy setting in the environmental sphere, including sustainable development policies and international objective setting in general, usually depend upon international law for their operationalisation. Otherwise the objectives will not become legally binding upon states as such.

In many instances, the first step is thus taken by agreeing upon an international treaty. The aim of this treaty being to legally operationalise these objectives (sub-objectives depending upon the level of decision making) and the respective treaty provisions will reflect these objectives.²⁵² Another possibility, and a further one, for operationalisation is where individual objectives or targets are made legally operational by enacting particular COP decisions on the issue within framework treaties.²⁵³

Obviously some treaty provisions are meant to be applicable in the state v. state situation.²⁵⁴ But others, although addressed to states, are eventually meant to create substantive obligations – rights and duties – that will change the legal situation of individuals and legal entities at the national level. However they are as a rule only subject to the respective national legislation as means for their further elaboration.²⁵⁵ The mutual, and the ultimate objective, is however to have positive effect on the environment, presently and in the future (D in figure 17, and the right side of the action-reaction model figure 7).

Secondly, as far as the international legal system is concerned, several of its components and functions are fundamentally different from a national legal system. First of all, the international legal system lacks one central legislative authority. In the environmental field, treaties are prepared by several international and regional authorities as well as by particular groupings of states sharing common interests.

²⁵² See *e.g.* the Aarhus Convention, particularly its preamble; the United Nations Framework Convention on Climate Change (1992), 31 ILM 849 (1992), cited as the UNFCCC; Protocol to the United Nations Framework Convention on Climate Change (1997), 37 ILM 22 (1998), cited as the Kyoto Protocol, and finally mentioned here, the CBD emphasising sustainable use of biodiversity, *cf.* its Article 1.

²⁵³ See further section 4.5 below.

²⁵⁴ See; *inter alia*, the Straddling Fish Stocks Agreement's preamble, and *e.g.* its Article 8.

²⁵⁵ See *e.g.* the Aarhus Convention's preamble, and its Articles 4 through 9, and *e.g.* Article 17 of the Kyoto Protocol. See further Ebbesson 1996, p. xix, and *e.g.* p. 26.

Noteworthy entities that are responsible for treaty preparation include the International Law Commission (ILC), UNEP and the United Nations Economic Commission for Europe (UNECE). Although influential, these authorities lack legislative powers in the traditional meaning of the term.

For obvious reasons, international treaties²⁵⁶ do not become part of the corpus of international law unless the contracting parties take the necessary steps, including a formal ratification process, to give the treaty its validity as international law.²⁵⁷ The fact that treaties are prepared by many different international organs increases disparities, presumably, when concepts, objectives and recent environmental principles are transformed into the substance of individual provisions.

Sometimes important concepts and principles are left undefined in treaty texts. See, for example, the Convention on International Watercourses, Article 24 on management, where according to paragraph 2, watercourse states are to plan the sustainable development of international watercourses.²⁵⁸ On the other hand Article 2(2)(a) of the OSPAR defines the precautionary principle's core in some detail and thus provides the various parties involved with concrete information on the fundamentals of the principle.

Second, some recent international environmental treaties have particular institutions – usually the COP acting in accordance with the respective treaty provisions – that are competent to review how the states implement or otherwise fulfil their commitments at the national level. See, *inter alia*, OSPAR, *cf.* its Article 10(2)(a), Article 6(2)(a) and (d) of the Ramsar Convention, and also Article 23(4)(a) of the CBD. Although such measures are usually soft they can, nevertheless, create some pressure on individual treaty parties.

If however individual states are in disagreement on a legal issue, disputes can sometimes be brought before an international court. The influence of such courts is diminished, however, by the fact that individual states may choose to ignore their jurisdiction.²⁵⁹ In relation to

²⁵⁶ I have in mind the so called law making treaties.

²⁵⁷ See further, *inter alia*, Articles 2(1)(b), 14, 16, and 18 of the Vienna Convention on the Law of Treaties (1969), 8 ILM 679 (1969), cited as the Vienna Convention.

²⁵⁸ See further: Jóhannsdóttir 2002, pp. 57 and 68.

²⁵⁹ In line with Article 36 of the Statute of the International Court of Justice. See also Brownlie 2008, pp. 710-712.

the ICJ, I. Brownlie points out that the “acceptance of compulsory jurisdiction under the optional clause has been slow to develop.”²⁶⁰ Moreover, the ICJ tends to rely upon restrictive interpretation particularly in procedural matters²⁶¹ and this has diminished its potential influence in the development of international law affecting the environment.²⁶²

Even though the international legal system and national legal systems are fundamentally different, if their structure and functions are looked at closely, similar deficit argumentation can be relied upon for both of them when it comes to applying ELM.

However, in order to further the comprehension of the transcending character of international objectives in the environmental field, I will now introduce the *double deficit*.

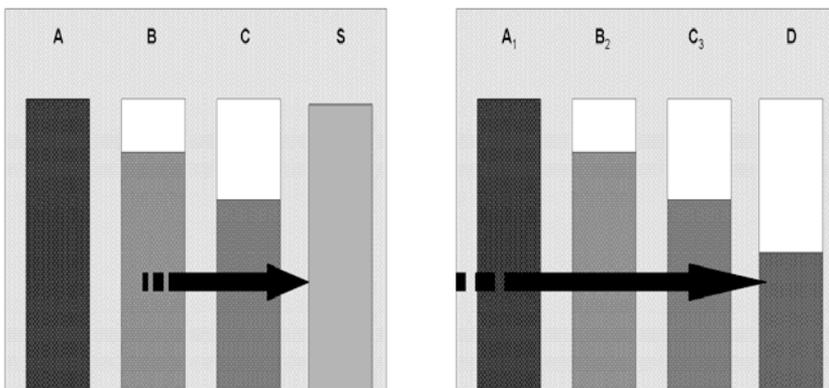


Figure 17

²⁶⁰ See further Brownlie 2008, p. 723, one being that states prefer the flexibility of arbitration.

²⁶¹ See e.g. the conclusion, a dismissal of the case, in *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court’s Judgment of 20 December 1974 in the Nuclear Tests (New Zealand v. France) Case*. Order of 22 September 1995. ICJ Reports 1995, p. 288, the *Nuclear Test Case*.

²⁶² IJC’s strict interpretation was criticised by *inter alia* Judge Palmer, in his dissenting opinion in the *Nuclear Test Case* where he described the Court’s method as a “triumph of formalism over substance. The law appears as some disembodied construct that is far removed from the concerns of the real world. The law is frozen in time, nothing beyond 1974 has any relevance or importance in interpreting paragraph 63, except a resumption of atmospheric testing.” *Ibid.* pp. 97-137. See also Judges’ Weeramantry dissenting opinion in the same case, criticising the Court’s approach and methodology in the case. *Ibid.* pp. 33-78.

The box on the left-hand side in figure 17 represents the international legal order. The box on the right side is familiar and is almost identical to the one introduced in chapter 3. In the box on the left A indicates international policies, objectives and principles that are eventually to have effects in the environment, D. B represents the legal aspect, that is their legal operationalisation within international treaties. C, the possible international enforcement of international obligations, and finally, a new component, the state (any state), or S, is introduced that functions as a filter between international law and a national legal system.

The flow between the two boxes represents the following: the international policy, objectives and principles of A, are usually, but not necessarily, reintroduced in A₁, that is at the national level. If the same objectives have not been legally operationalised through international treaties, then what takes place from A₁ through D, is in line with the standard deficit model in figure 8, previously explained in section 3.2.4.1.

However, if international treaties are inserted into the model (the box to the left), I have taken into account an extra barrier, or the state S, that not only prolongs the journey from A to D, but also contributes to the double deficit.

The essence of the double deficits theory is that it presupposes that S in fact functions as an extra filter and a barrier that diminishes the possible legal effects of international treaties within national legal systems. The state – as a rule this falls upon the legislative branch – has the ultimate say on how or whether, which is usually a constitutional matter, international obligations are eventually incorporated into the national legal system.

The effectiveness of the incorporation is also dependant upon the details of the treaty structure. For example, most of CBD's provisions have an open ended structure, beginning with a familiar phrase: "Each Contracting Party shall, in accordance with its particular conditions and capabilities: ... ", *cf.* Article 6; and "Each Contracting party shall, as far as possible and as appropriate, ... " *cf.* Articles 7-10, thus allowing the respective states to introduce their own particular interests into the balancing process. See on the other hand, the Kyoto Protocol's Article 3(1) and Annex B, where each party to Annex I of the UNFCCC may not exceed their assigned amounts, calculated in line

with their quantified emission limitation and reduction commitments described in Annex B. Hence this kind of structure leaves no room for balancing.²⁶³

Recent international treaties relating to the environment – and this is probably a growing tendency – are structured as frameworks and represent framework provisions in their operational parts.²⁶⁴ Furthermore, in its efforts to balance competing interests, or when exercising its sovereign right to utilise natural resources, the state can usually introduce economic issues or particular circumstances into the balancing process.

See also the argumentation in the *Fisheries Jurisdiction Case of 1974*²⁶⁵ where the ICJ acknowledged that a special situation existed and took into account the economy's dependence on fishing as well as the state's interest in excluding foreign fishing vessels from the waters adjacent to the 12 mile territorial waters, (nowadays know as the EEZ) when deciding on whether Iceland's extension of their exclusive fishing zone from 12 nautical miles from to 50 nautical miles was contrary international law.²⁶⁶ It concluded that

“the Regulations concerning the Fishery Limits off Iceland ... promulgated by the Government of Iceland on 14 July 1972 and constituting a unilateral extension of the exclusive fishing rights of Iceland to 50 nautical miles from the baselines specified therein are not opposable to the Government of the United Kingdom; ...”²⁶⁷

and Iceland was not entitled unilaterally to exclude United Kingdom fishing vessels from particular areas that had previously been agreed to in 1961.²⁶⁸

One of the basic reasons for the ineffectiveness is to be found in the wording of individual obligations, or in their structure and actual text

²⁶³ Structures of international norms are theorised by J. Ebbesson under the theory of compatibility of international and national environmental law. Ebbesson 1996, pp. 101-200.

²⁶⁴ Cf. also development within EC environmental law, for example Directive 96/62/EC on ambient air quality assessment and management, OJ L 296 21.11.1996, p. 55; EC water-framework directive, and Directive 2002/49/EC relating to the assessment and management of environmental noise, OJ L 189, 18.07.2002, p. 12.

²⁶⁵ *United Kingdom of Great Britain and Northern Ireland v. Iceland*. Merits. Judgement of 25 July 1974, p. 3. Cited as *the Fisheries Jurisdiction Case of 1974*.

²⁶⁶ *Ibid.* e.g. para. 19, and paras. 57-60.

²⁶⁷ *Ibid.* para. 79.

²⁶⁸ *Ibid.*

of the articles, particularly in the so-called balancing norms. Balancing norms are

“a particular kind of regulatory technique, a legal approach, for defining obligations, whereby the balance takes place “within” the norm. ... They are rather frameworks, which need to be complemented by information on interests and by facts as well as other legal considerations before a normative solution is drawn”²⁶⁹

since balancing norms concern

“... the extent international law allows states to balance environmental protection against other factors when implementing their environmental law and policy.”²⁷⁰

Before going further however I deem it necessary to cover some fundamentals on the legal connection between international law and national law. I will begin with the monists and dualist theories, and thereafter some points related to law creating decisions taken by individual treaty institutions will be articulated.

4.4 Monist and dualist doctrines

As I have argued above, the state(s), S in figure 17, functions as an extra filter and a barrier, thus diminishing the possible effects of international obligations within national legal systems. However, some states follow the so-called monist doctrine, whereby, at least in theory, they accept the supremacy of international law over national law, and the possibility of international obligations taking precedence before national courts. But others subscribe to the dualist doctrine, basically the view that international law and national represent two separate legal orders. Thus the question to be worked on in this section is why the monist and dualist theories are relevant to the theory of double deficit, though perhaps they may turn out to be less important than one might expect at the outset.

²⁶⁹ Ebbesson 1996, p. 87.

²⁷⁰ *Ibid.* p. 103. See further: *ibid.* pp. 103-134.

4.4.1 Monists v. dualists

When the legal relationship between international law and national law is investigated two basic theories or doctrines are usually mentioned as starting points: First the monists' and second, the dualists'.²⁷¹

The former views the two systems as part of one legal structure, the same legal order, and sees national legal orders as being "derived by way of delegation from the international legal system".²⁷² Thus, international law becomes superior to national law. The latter, on the other hand, looks upon international law and national law as two totally separate legal systems usually necessitating an active legislating involvement of the central legislature at the national level.²⁷³ When this is the case, obviously, the question of supremacy becomes irrelevant.

In essence, the main practical difference between the two doctrines centres on the question of whether national courts should accept international law as part of the internal legal order, or not, and second, on the question of whether individuals and legal entities should rely directly on the same sources when pursuing or protecting their rights under national legal systems.

Which doctrine states follow is not a matter of international law, but a decision – sometimes based upon long standing custom – for the respective state to make. Some states take a clear stand on the issue in their constitution;²⁷⁴ others have come to the conclusion that particular constitutional provisions exclude all legal effects of law that has not been enacted by the national legislator.²⁷⁵

²⁷¹ A. Cassese outlines three theories: (1) "monistic view advocating the supremacy of municipal law", (2) "dualist doctrine, suggesting the existence of two distinct sets of legal orders", and finally, (3) "monistic theory maintaining the unity of the various legal systems and the primacy of international law." Cassese 2005, p. 213 *et seq.* There are further theories on the issues outlined by I. Brownlie, see further Brownlie 2008, pp. 31-33 and *passim*.

²⁷² Oppenheim's International Law 1996, p. 54.

²⁷³ *Ibid.* pp. 53-54.

²⁷⁴ See *e.g.* Article 25 of the Basic Law of the Federal Republic of Germany.

²⁷⁵ A traditional approach under Icelandic law. Schram 2000, pp. 40-42. See furthermore Björgvinsson 2006, pp. 169-175, on the same issue and that also emphasises the practice of the national courts that have interpreted national legislation in line with international obligations that have not explicitly been made part of the internal legal order.

4.4.2 Customs, treaties and decisions of tribunals

When the legal effects of international law are added to the equation, a division between (1) international customs, (2) treaty law, and finally (3) decisions of international tribunals is necessary.

As far as (1) and (2) are concerned, each national legal system needs to be investigated in order to determine the effects. Many states consider generally accepted customary law as part of the law of the state, regardless of which doctrine they follow.²⁷⁶ The situation is more complex when it comes to international treaties. Furthermore, the so-called self-executing treaties are sometimes not as “self-executing” as one might presume at the outset.

For example in the US,²⁷⁷ self-executing treaties would, in theory, be directly applicable before all US courts.²⁷⁸ The general rule under English law would be to the contrary, and treaty provisions affecting or changing the legal situation of individuals require an act of Parliament to be accepted by the courts.²⁷⁹ Self-executing treaties (treaty provisions) – the opposite are non-self-executing treaties – are the ones that do not require particular legislation for their implementation into a legal system, see *e.g.* the situation in the US.²⁸⁰ In order for a treaty to be considered as containing self-executing provisions under US law – which is a matter of interpretation²⁸¹ – they must meet particular criteria. Basically they need to be “(1) unambiguous, (2) certain, and (3) not forward-looking”, as Wallace writes.²⁸²

In relation to international legislating techniques, an issue that will be given more attention below, it is of interest to examine how US

²⁷⁶ See *e.g.* the situation in the US, where international customary law would be binding upon US courts, and also the UK where the same principle would apply. See further Oppenheim’s International Law 1996, pp. 56-57, and pp. 74-75.

²⁷⁷ When describing the sources of law in the US and their hierarchy, W. Burnham lists, first, the federal constitution, second, federal statutes, *treaties* and court rules, third, federal administrative agency rules, fourth federal common law, fifth, state constitutions, sixth, state statutes and court rules, seventh, state agency rules, and finally eighth, state common law. According to Burnham, all treaties have the status of federal statutes; furthermore, the federal constitution prohibits individual states from entering into treaties with other nations. See further: Burnham 1995, pp. 37-40, and *passim*.

²⁷⁸ See further: Oppenheim’s International Law 1996, pp. 74-77.

²⁷⁹ For details, *ibid.* pp. 56-63. This would also be the principle in all of the Nordic states, *i.e.* Denmark, Finland, Iceland, Norway and Sweden.

²⁸⁰ See further an accessible overview on the US situation provided by Wallace 2002, pp. 47-48.

²⁸¹ Bodansky 1998, p. 58.

²⁸² Wallace 2002, p. 48.

courts have concluded some cases concerning international environmental law, including international biodiversity law. According to Bodansky, US courts have been reluctant to accept that provisions of international environmental treaties – *inter alia*, individual provisions of CITES – have contained self-executing provisions and thus fulfilled the said criteria for making them directly applicable before a US court. Furthermore, in D. Bodansky's view, even though the US has usually been regarded as monist state – which is, in fact enshrined in Article VI, Section 2, of the Constitution of the United States as far as treaties are concerned – the practice of US courts indicates otherwise, at least in the field of international environmental law. The role of US courts in international human rights law has been quite different.²⁸³

On the last issue, (3), or the effects of the decisions of international tribunals in national systems, Oppenheim's International Law is clear. Without an examination of the respective national legal systems, it says, one cannot conclude that that they are binding. However, they do bind the state as a legal subject under international law.²⁸⁴

To take an example, from a particular state, Iceland, that follows the dualist doctrine; here the law particularly stipulates that the decisions of the European Court of Human Rights (ECofHR), the European Commission of Human Rights and the Committee of Ministers are not binding under national law, *cf.* Article 2 of Act no 62/1994 on the European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR).²⁸⁵ Furthermore ECHR's text was made part of the corpus of national laws with Act no 62/1994. This was done in order to ensure its applicability under the national legal system.

In spite of a lack of a general principle on the legal effects of international tribunals, Oppenheim's International Law names an example where national courts "may be expected"²⁸⁶ to follow the decisions of an international tribunal and consider them binding upon

²⁸³ For further details: Bodansky 1998, pp. 57-62.

²⁸⁴ Oppenheim's International Law 1996, p. 55. See furthermore, Article 59 of the Statute of the International Court of Justice, stipulating that ICJ's conclusions are solely binding the parties of the proceeding.

²⁸⁵ 213 UNTS 221.

²⁸⁶ Oppenheim's International Law 1996, p. 55.

them, if the issue at hand concerns the extension of a state's jurisdiction.²⁸⁷

4.4.3 Practical consequences

The practical consequences of the two basic doctrines that I have now introduced are not as clear nowadays as was the case in the early days of international law. This is, *inter alia*, due to the fact that international law's complexity is growing. At the same time international law is not one, it is many, in the sense that several independent international legal systems are in operation though often on different levels of the international legal order. International law is thus multi-levelled.

In line with this development, international treaties not only reflect the traditional state v. state relations, previously the basic reason for international regulation. Furthermore, a large part of international biodiversity law will eventually affect the legal situation of individuals and legal entities although its ultimate objective is to enhance biodiversity conservation and the environmental situation.²⁸⁸ When states become parties to international treaties they may have to add to, or modify, their national legislation in order to fulfil their international obligations. Such changes usually have as a consequence further regulation at a regional and national level, all of which is meant to control human behaviour, and eventually to change the environmental situation.

4.5 Decisions taken by treaty institutions

As I have previously outlined, the structure of international obligations is a factor that contributes to the effectiveness of the individual provisions of international treaties when they are made legally operational at the national level. In many instances, individual provisions consist of a frame or a general objective which the respective parties are expected to fill out, so to speak, at a later date.

This development usually requires the creation of institutional structures within the respective regimes. In many instances, they al-

²⁸⁷ *Ibid.*

²⁸⁸ *Ibid.* p. 54.

low for, although not always explicitly, international lawmaking. Thus a treaty institution takes a decision, lawmaking decision, which is often – though not exclusively – meant to complete, interpret or add to the substance of a particular treaty provision. The powers of such institutions – usually a treaty creates a common forum or the COP and outlines if, when and how binding decisions can be enacted by the COP – vary depending upon how the treaty in question is initially structured.²⁸⁹

This development is particularly evident in the field of international treaties relating to the environment although it is also known in other fields of international law.²⁹⁰

The binding character of these decisions under international law are however not a clear cut issue. They may be binding upon the parties to the treaty that is if a state does not object to such a decision and in some cases can the majority of states bind the minority.²⁹¹

However, the question of whether the states accepting the decisions should ratify them is not so obvious, since they are, after all, not treaties in the traditional meaning of that term and thus, from the outset, should not be treated as such. Nonetheless, such decisions can actually add to the substance of individual treaty obligations.

In this respect it is of interest to see how Röben argues when he states that the “agreements use “decisions” as a generic term for the institution’s instrument of action”²⁹² but this is not the case without exception as he points out, thus investigation of the treaty text is necessary in each case. Furthermore, as Röben writes

“[t]he Meetings of Parties of modern international environmental agreements in principle have the power to adopt externally binding normative decisions; it is a matter of interpretation to determine whether and to what extent a given decision is meant to be binding”.²⁹³

²⁸⁹ Churchill/Ulfstein 2000, particularly pp. 623-628, and also Röben 2000, pp. 365-371 *et seq.*

²⁹⁰ See further: R. R. Churchill and G. Ulfstein that outline the development in detail in Churchill/Ulfstein 2000, pp. 623-659, and particularly pp. 623-625, where an overview of treaties in the environmental field and that contain such arrangements. See also, V. Röben in Röben 2000, pp. 363-443.

²⁹¹ See further Article 2(9) of the Montreal Protocol on Substances that Deplete the Ozone Layer (1987), 26 ILM 154 (1987), usually referred to as the Montreal Protocol.

²⁹² Röben 2000, pp. 371-372.

²⁹³ *Ibid.* p. 372.

Churchill and Ulfstein describe these institutional arrangements as *autonomous* since they hold their own lawmaking powers and compliance mechanisms, but they are nevertheless similar to traditional intergovernmental organisations (IGOs) in their view.²⁹⁴ All the same there are differences they argue, as they provide

“a distinct and different approach to institutionalise collaboration between states, being both more informal and more flexible, and often innovative in relation to norm creation and compliance.”²⁹⁵

Of interest for this study however, and for the development of the theory of double deficit, is not only the fact that this development has taken place, but also that it has initiated a discussion of the legal effects and other influences of the lawmaking COP decisions. The substance of these decisions is in some cases unknown to national legislatures, and from that point of view these decisions represent a kind of an international shadow law.²⁹⁶

For example, the CBD creates a governing structure – the COP, *cf.* its Article 23 of the CBD, and a subsidiary body (SBSTTA), *cf.* Article 25. The former is competent to take particular decisions to further the international legislative work on biodiversity but the mandate is confined to treaties, annexes and protocol amendments, and the latter to provide scientific and technical inputs.²⁹⁷ Moreover, in accordance with Article 23(4)(i) the COP is to “[c]onsider and undertake any additional action that may be required for the achievement of the purposes of [the] Convention in the light of experience gained in its operation.” The COP has, presumably on this basis, decided many important decisions that complement the CBD. As a general rule, CBD COP decisions are taken by reaching a consensus on an issue, or if that is not possible, and as a last resort, they can be taken by a two-thirds majority vote of the parties present and voting, *cf.* rule 40 of the

²⁹⁴ Churchill/Ulfstein 2000, p. 623, and also pp. 655-658.

²⁹⁵ *Ibid.* p. 625.

²⁹⁶ It has turned out to be difficult to come across information on how these decisions are actually treated by individual national legislatures.

²⁹⁷ See further CBD’s Article 19(3) providing the legal foundation for the Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 39 ILM 1027 (2000), cited as the Cartagena Protocol, as well as CBD’s Article 28.

Rules of Procedure for Meetings of the Conference of the Parties to the Convention on Biological Diversity.²⁹⁸

As the CBD has developed however, the COP has enacted the bulk of decisions, usually referred to as “decisions” in order to further the substance of individual CBD provisions. Furthermore, to elaborate further CBD’s individual objectives. This practice has taken place even though the CBD does not have any clear provisions for such lawmaking. In line with Churchill and Ulfstein’s analysis, these decision making powers may be regarded as being implied²⁹⁹ and that is my understanding as well.

On the other hand the bulk of CBD’s COP decisions are *soft* in both their approach and wording. Nevertheless these decisions are of great importance for the furtherance of the operative part of the CBD and include and elaborate new principles and approaches supporting sustainable use of biodiversity and the realisation of ecological sustainability. The obvious drawbacks however relate to the fact that in many instances the substance of the decisions needs to be made legally operational, as a rule within a national legal system, in order to have the intended effects.³⁰⁰

When treaties are amended or new protocols to them accepted, the legal situation under international law is clear. As a rule, the respective states have to take the necessary legal measures and ratify the amendments and new protocols. Otherwise they will not be legally bound under international law. But in the case of lawmaking decisions enacted by COPs, decisions that are meant to further the substance of individual treaty provisions, how the states are to react is not entirely clear. This obviously weakens the legal effects of this important and innovative method.

²⁹⁸ Accepted in accordance with CBD COP Decisions I/1 (1994) and V/20 (2000), Published, *inter alia*, in the Biodiversity Handbook 2005, pp. 57-69, cited as the CBD Rules of Procedure.

²⁹⁹ See further: Churchill/Ulfstein 2000, pp. 631-636.

³⁰⁰ See further on some of the groundbreaking decisions taken by the CBD’ COP, *inter alia*, Decision no. V/6 (2000), VI/12 (2002) and VII/11 (2004), all on ecosystem approach. See further chapter 9, and Jóhannsdóttir 2007a, pp. 282-283.

4.6 Rule of law

Now I will turn to the rule of law. The international legal order is ruled by international law.³⁰¹ The principal actors are equal sovereign states that *choose* whether or not they become legally bound by particular treaty obligations.³⁰² If states do not decide to do so they will not be made subject to individual treaty commitments. The international legal order is after all ruled by law. However, states cannot escape the fundamental principles of international law.

Many of the fundamental rights and duties of states have established themselves as international customs and are therefore as a rule binding all states. For example states have a sovereign right to utilise their national resources in line with their own environmental and development policies.³⁰³ At the same time, states bear the general duty to ensure that activities and processes that take place within or under their jurisdiction do not harm the interests of other states or areas beyond that national jurisdiction.³⁰⁴ Few would question the customary and status of these two fundamental principles that thus bind all states.

Even though no such thing as a typical centralised constitution is available for the international legal system, some international principles have, or are considered to have “constitutional quality” and cannot legally be overruled. The Charter of the United Nations³⁰⁵ provides the basis for many of these principles, some of which have earned a customary status under the international legal system. Emphasis here tends to be placed on the maintenance of international peace and security and international co-operation.³⁰⁶

³⁰¹ Some legal orders explicitly state that they are ruled by law. See Article 6(1) of the Treaty of the European Union stating: “The Union is founded on the principles of liberty, democracy, respect for human rights and fundamental freedoms, and the rule of law, principles which are common to the Members states.” OJ C 321 E, p. 5, 29.12.2006.

³⁰² In some exceptional instances the UN Security Council has the power to enact decisions, and sanctions, which are binding upon the addressee and enforceable by the international community.

³⁰³ See further Principle 2 of the Rio Declaration and also Article 3 of the CBD. See further on these principles, *in te aila*, Schrijver 1997, pp. 36-142 and 392-395; Sands 2003, pp. 235-246; Brownlie 2008, p. 276, and finally Guruswamy 2003, pp. 18 and 71-80.

³⁰⁴ These principles are of course always valid even though international treaties have been concluded in a particular sphere of international law.

³⁰⁵ Charter of the United Nations (1945). 1 UNTS xvi. (Cited as the UN Charter).

³⁰⁶ Cf. Article 1.

As I have previously outlined, this study is particularly interested in the legal situation in cases where no regimes are available in a given field of international law affecting biodiversity. Then, as I argue, the default law becomes the applicable law. How rule of law actually functions in relation to the default is illustrated below with the model, *cf.* figure 18. The background area (light gray area) is used to indicate the default and its principles and the two arrows B illustrate how the default and its principles have an effect on the status within the environment (the darkish field on the right). The box on the left, A, represents different kinds of law-making treaties. The arrow connected to that box pointing in the direction of the environment, indicates how the law affects the environment.

Since A contains differently structured norms, including active, empty and passive law as defined by ELM,³⁰⁷ that factor and the rule of law determines if, when and how the principles of the default will actually have an effect on biodiversity in nature.

To connect A and B, if the rules in A do not explicitly determine the legal situation, the more likely it is that a principle within B, that is within the default, will begin to have an effect. They can be either beneficial or not for biodiversity, depending on their content and how accurately they control the behaviour of states. This model will be further theorised in chapter 7.

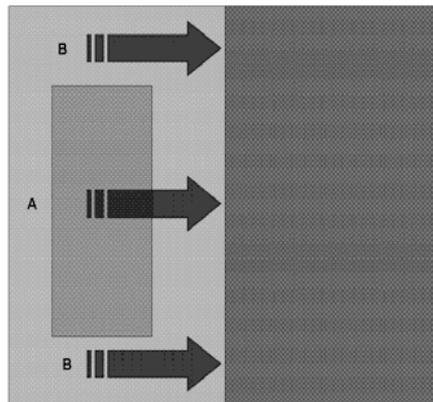


Figure 18

³⁰⁷ See further Westerlund 2007, pp. 28-31 and chapter 7.

4.7 Concluding remarks

As stated at the beginning of the chapter, my purpose here has been to develop and adapt some of the fundamentals of ELM for application at a later stage. I have drawn attention to the multi-layered international legal order, each of whose layers is capable of affecting biodiversity and the realisation of the 2010 target, *cf.* figures 15 and 16. This is an important addition to ELM when the complexity of the international legal order is kept in mind.

One of the fundamental models of ELM, the one on the deficit, has furthermore been adjusted to serve the purposes both of this study and of international law research. The basic model is based upon one legal system, a national legal system. However, I have argued that due to the function of the state as an extra filter a second deficit occurs. I have, therefore, introduced the double deficit theory, figure 17, and the some of factors that contribute to the second deficit.

A particular development of international law is reflected in autonomous institutional arrangements. This development has darker sides. The legal effects of these decisions are not fully clear although their legal relevance should not be overlooked or underestimated. How individual states react to this reality is however uncertain. It can however be argued that some states pay little attention to these decisions and do not take any particular steps to make them legally operational within their national legal systems.

ELM will not be developed nor its theories adjusted for international law research unless particular facts on the rule of law are made clear. Furthermore, an understanding of the rule of law is necessary for understanding the significance of the default. Some preliminary views on how the default functions were demonstrated by introduction the basic rationale behind figure 18.

5. The international legal order

5.1 Introduction

“International law is the body of rules which are legally binding on states in their intercourse with each other. These rules are primarily those which govern the relations of states, but states are not the only subjects of international law. International organisations and, to some extent, also individuals may be subjects of rights conferred and duties imposed by international law.”³⁰⁸

In chapter 3, I introduced the fundamental principle of systemic thinking, *i.e.* the notion that any control system needs to be as advanced and complex as the objects being controlled. Moreover, as I outlined in the *Introduction*, one of the objectives of this study is to develop a theory on the default significance. A fundamental component is thus a holistic view of the international legal order. This requires particular information, which is the reason for this chapter’s analysis of the main aspects and functions of the international legal order.

I will commence the analysis by explaining some important terms, *cf.* section 5.2. Thereafter, in section 5.3, some of the historical monuments of the international legal order will be briefly outlined. This will be followed by a short description of the order’s main structure, principal institutions, and its legal sources, *cf.* section 5.4. Thereafter, in section 5.5, the study’s objectives will be discussed in the light of the subject of the chapter. Finally section 5.6, holds some concluding remarks.

The questions whether international law is actually law, or whether the international legal order is a legal order, are not elaborated on in the sections below. The study presumes that an international legal order (orders) and international law exist, and that states in most cases follow international law and act accordingly. For this

³⁰⁸ Oppenheim’s International Law 1996, p. 4.

study's orientation the problem is rather related to the structure of the order and to the content of international law and whether a particular field is regulated since lack of regulation increase the likelihood that the principles of the default become a significant factor.

Before going on, however, I will first explain some important terms.

5.2 Important terms

Some scholars use the term *universal* international law when referring to the segment of international law which all states are bound by, *i.e.* international customary law. Another term, *particular* international law is sometimes used to indicate a narrower section of international law or the part of law that is binding to two or more states. The term *general* international law is often used when one refers to the part of international treaty law that is binding to a "great many states"³⁰⁹ – law-making treaties basically – and that holds rules of general application. Such rules have the tendency to become universal international law and binding to all states regardless of their explicit consent.³¹⁰ The term, international biodiversity law, is used to indicate the kind of general international law that is wholly or partly concerned with biodiversity. International treaty law affecting the environment and international biodiversity law is largely reflected in general and particular international law.³¹¹

³⁰⁹ Oppenheim's International Law 1996, p. 4.

³¹⁰ *Ibid.* pp. 4-5.

³¹¹ The reason why the *Gabčíkovo-Nagymaros Case* was brought before the ICJ related to the execution of a bilateral treaty from 1977 on the construction and operation of the Gabčíkovo-Nagymaros System of Locks. Several provisions of the 1977 treaty contain references to environmental issues, such as Article 15, which stipulates that the contracting parties are to "ensure, by the means specified in the joint contractual plan, that the quality of the water in the Danube is not impaired as a result of the construction and operation of the System of Locks", and further, Article 19 stipulates that the contracting parties are to "ensure compliance with the obligations for the protection of nature arising in connection with the construction an operation of the System of Locks." The Court pointed out that newly developed norms of environmental law were important for the implementation of the 1997 treaty and that the parties could with an agreement, incorporate them when applying those articles. See further: *Gabčíkovo-Nagymaros Case*, para. 18, *et passim*.

5.3 Evolution of an international legal order

5.3.1 General remarks

The institution of public international law differs from other international legal orders, such as the EC's and the WTO/GATTs' which are of course subject to the general part of international law.³¹² The two latter were particularly *designed*, so to speak, to guard and serve particular objectives of groups of states. They began to operate on a particular date. Furthermore, they are self-contained when it comes to rule-making and enforcement mechanisms. New states that seek to become members need to fulfil precise criteria. Moreover, their membership needs approval by the existing members.

Identical requirements are not present within international legal order, where *all* sovereign states are equal members in line with the principle of the equality of states.³¹³ Some states choose to stay outside of international organisations, such as the UN, some do not accept the jurisdiction of international tribunals. They are nevertheless bound by and subject to international law as sovereign states and as members of the international community of sovereign states.

It took centuries for the international legal order to take its present shape. All the same, its fundamentals remain relatively stable and universal and the sovereign states continue to be of central importance.

However the development continues.

To provide an example of a recent feature, a growing number of treaties contain provisions establishing autonomous institutional arrangements.³¹⁴ They differ from the classical IGOs to some extent. This has, *inter alia*, been the development in the sphere of international law affecting the environment. Parties to particular treaties have, in many instances, accepted the right of the COP to take often wide ranging decisions in order to fill out framework provisions.³¹⁵

³¹² It will suffice to point out the general applicability of the principles of the Vienna Convention.

³¹³ See further the UN Charter, particularly its Article 2(1): "The Organization is based on the principle of the sovereign equality of all its Members."

³¹⁴ Term used by R. R. Churchill and G. Ulfstein in Churchill/Ulfstein 2000, p. 623 ff.

³¹⁵ Progressive examples are available under the climate regime, see further UNFCCC's Article 7(2)(g) and 7(3), see also the Kyoto Protocol's Article 13(4) and also 13(4)(f) and (j). See further on this phenomena Churchill/Ulfstein 2000, pp. 623-659, and also Røben 2000, pp. 371-372.

Such mechanisms may further the objectives of the respective treaties. The powers of such institutions are not always clear and can challenge legal certainty. But at the same time they provide for a high degree of effectiveness of the regimes in question.³¹⁶ Examples of such arrangements are also present in treaties that would not be described as typical “frameworks”, such as the Ramsar Convention.

5.3.2 Origins and influences

The origin of modern public international law is usually linked to the Westphalia peace treaties of 1648. At that time, several states, independent of the Catholic Church and the Holy Roman Empire, were recognised as *sovereign*. Thus they were capable of independent existence without any formal link to the other two entities.³¹⁷ The Westphalia treaties also paved the way for several states in Western Europe to become the *ruling* states in the development of universal international law. Few would disagree with the view that these states have in many ways shaped the subject matter of the principal sources of international law. As codification of international law grew, many of the early fundamental principles, and several of the general principles, became part of the international *lex papyrus* both in general and particular international law. This development has been visible in the general part through its effects on the environment,³¹⁸ including international biodiversity law.³¹⁹

³¹⁶ See as an example Article 6(2)(f) of the Ramsar Convention.

³¹⁷ Cassese 2005, pp. 22-25, *et passim*.

³¹⁸ See as an example Article 5 of the Convention on the Law of the Non-navigational Uses of International Watercourses (1997). 36 ILM 700 (1997), cited as the Watercourse Convention. See further on the principle: Jóhannsdóttir 2002, pp. 56-72.

³¹⁹ See *e.g.* CBD's Article 3 on states' sovereign right to utilise their natural resources and their responsibility to prevent environmental degradation beyond their national jurisdiction and in areas beyond jurisdictions, and also Article 2(3) of the Ramsar Convention, which stipulates that an “inclusion of a wetland in the List [Ramsar list of wetlands] does not prejudice the exclusive sovereign rights of the Contracting Party in whose territory the wetland is situated.”

5.3.3 UN's establishment

It is fair to state that the establishment of the UN in 1945 and of the ICJ the same year,³²⁰ as well as of the ILC 1947,³²¹ gave international law and international law making a new, semi-centralised character.³²² In the aftermath of World War II, new values gained universal acceptance³²³ and a new international forum for further international co-operation became a reality.³²⁴ Furthermore, a shift from the previous “laissez-faire” approach towards greater regulation clearly manifests itself in the growing volume of law-making treaties. However, the UN provides an important platform in this respect.³²⁵

Many of the fundamental principles of international law had already established themselves prior to 1945.³²⁶ Under the auspices of the UN and its bodies, new values have been brought to the scene, including human rights, environmental concerns³²⁷ and sustainable development policies.³²⁸

³²⁰ The UN Charter, Articles 92-96, provides the Court's legal foundation. The ICJ builds upon its predecessor's legacy, or the Permanent Court of International Justice (PCIJ). The PCIJ had been established in accordance with the Covenant of the League of Nations from 1919. The PCIJ began to operate in 1922 and was formally dissolved in 1946.

³²¹ The ILC was established in 1948 by the UN, in line with UNGA Res. 174 (II), and its task is to promote the progressive development of international law and its codification, *cf.* Article 1(1) of the Statute of the International Law Commission. *Ibid.*

³²² In accordance with the UN Charter, Article 7 *et passim*, UN's principal organs are: (1) the General Assembly (GA), (2) the Security Council, (3) the Economic and Social Council (ECOSOC), (4) the Trusteeship Council, (5) the ICJ, and (6) a Secretariat. Furthermore, important subsidiary organs, such as the UNEP, established in line with UN Doc. A/CONF 48/14/Rev.1 (1972), have been influential in shaping and carrying out international environmental policies as well as shaping international law in this field. For details on UNEP, influences, strengths and weaknesses, see *inter alia*, Desai 2006, pp. 137-157.

³²³ See *e.g.* the adoption of the Universal Declaration of Human rights, GA Res. 217 (III) on December 10th 1948.

³²⁴ See further on the UN System as such, White 2002, pp. 3-46.

³²⁵ See further, *e.g.* Cassese 2005, pp. 46 *et seq.*

³²⁶ See *e.g.* *Case Concerning the Factory at Chorzów*, (jurisdiction), PCIJ Series A. No. 9 (1927), p. 21, and also *Case Concerning the Factory at Chorzów*, (merits), PCIJ Series A. No. 17 (1928), cited as the Chorzów case, p. 3 *et seq.* “... the Court observes that it is a principle of international law, and even a general conception of law, that any breach of an engagement involves an obligation to make reparation.” *Ibid.* p. 24. See further on the principle of state responsibility and these cases: Jóhannsdóttir 2007b, pp. 1-38, and chapter 8 below.

³²⁷ Well reflected in the Stockholm Declaration.

³²⁸ The UN General Assembly called for the Rio Conference (UNCED), *cf.* UNGA Res. 44/228 from December 22, 1989: United Nations Conference on Environment and Development.

5.3.4 Codification

Due to, *inter alia*, the decolonisation process that took place after 1945 and the establishment or re-establishment of states, the demand for codification of international law grew. Codification was, *inter alia*, meant to decrease the historical and cultural differences between states and international law was supposed to better reflect the will of *all* states rather than only some of them.³²⁹ Consequently, the 20th century was an era of codification of international law, including international law in the environmental field.³³⁰

The ILC has been responsible for some of this work; see *e.g.* the *Draft Articles on Responsibility of States for Internationally Wrongful Acts*, and also *Draft Articles on International Liability for Injurious Consequences Arising out of Acts not Prohibited by International Law (Prevention of Transboundary Harm from Hazardous Activities)*.³³¹ Furthermore, the ILC has been responsible for drafting several land mark conventions, including in the environmental field such as the Watercourse Convention of 1997.³³²

5.3.5 International law affecting individuals

As the chapter's opening citation indicates, international law consists of rules, which are legally binding on states when their actions interact and *states*, in some instances IGOs, are international law's prime subjects.³³³ However, as international law has developed, individuals have increasingly been awarded rights by international law, rights which can sometimes be protected through the international legal system.³³⁴ Individuals can even bring claims against their own government before international courts in order to change their national

³²⁹ See further on the role of the UN, Cassese 2005, pp. 317-338.

³³⁰ See further on this development, *inter alia*, *ibid.* pp. 153-155.

³³¹ Report of the International Law Commission. Fifty-third session, 23 April – 1 June and 2 July – 10 August 2001. General Assembly Official Records A/56/10. See Jóhannsdóttir 2007b, pp. 1-38, on the draft articles in general and in relation to biodiversity.

³³² See further on the convention comments by A. Jóhannsdóttir where she doubts the progressiveness of the ILC that took more than two decades to work on the issue, and also notes that no reference to sustainable development was present in any draft produced by the ILC and only added to the operative text very late in the preparatory process. See further: Jóhannsdóttir 2002, pp. 56-72.

³³³ Oppenheim's International Law 1996, p. 4.

³³⁴ See further Cassese 2005, pp. 144-150.

legal situation. The last mentioned is obviously a reference to human rights and their international and regional protection.³³⁵

The situation of individuals is clearly affected by international regulation in another way.

Although states as such continue to be the prime subjects of international law and responsible as such pursuant to international law, most international law in the environmental field will eventually affect the legal situation of individuals, as Ebbesson argues.³³⁶ Excellent examples are treaties that in one way or another relate to the rights of land owners to continue to utilise their land as they have been doing.³³⁷ Moreover, treaties where the operators of polluting activities are eventually made subject to more preventive measures and subject to both national and international control.³³⁸

This has been the main development in the environmental field. Since the Stockholm Conference in 1972, the sphere of international law relating to the environment has grown considerably and every year several law-making treaties, that enjoy wide acceptance by states, are concluded in the field of international law and thus add to international regulation and international environmental control.

5.3.6 Marginal or even non-international angles

International treaty making is also, increasingly, regulating and controlling subject matters that do not necessarily have a clear international angle. They nonetheless require international regulation as a means by which to operationalise international objectives, including ecological sustainability and the halting and reversing of biodiversity deterioration.

This development is, *inter alia*, evident in several fields of international law affecting the environment. See *e.g.* the Aarhus Convention reflecting procedural obligations many of which were previously thought to be exclusive internal matters for states.³³⁹ Moreover, the

³³⁵ See further a good overview of the development of international and regional instruments in the field of human rights as well as on monitoring bodies. Cassese 2005, pp. 379-393, and *passim*.

³³⁶ Ebbesson 1996, pp. 70-72, *et passim*.

³³⁷ Many of the obligations of the CBD should eventually place further restrictions on land uses.

³³⁸ The climate regime should eventually have these effects.

³³⁹ See further on this point, Ebbesson 1998, pp. 51-53.

commitments apply regardless of whether the respective decision making has any transboundary effects. I therefore argue that many states would probably not regulate these subject matters unless “forced” to by international law.

However, states become parties to international treaties because they decide to do so. At the end of the day they give their explicit consent. Some states take on international obligations in order to avoid international criticism, but are not really capable economically or socially of fulfilling their commitments. Sometimes states seek to have particular arrangements acknowledged in order to facilitate participation.³⁴⁰

5.3.7 Multi-layered international legal order

As I have previously outlined, the international legal order is a multi-layered order composed of several independent legal systems or regimes, all of which, are capable of having effects on the environment, positive or negative.

³⁴⁰ To take an example from Iceland, the UNFCCC was ratified by the government as early as June 6th 1993 without any particular problems. However during the preparatory phase of the Kyoto Protocol, the Icelandic government realised that the method that was to be used to calculate the quantified emission limitation and the reduction commitments of at least 5% below the 1990 levels would be impossible to reach, basically due to the size of the economy and the fact that there were only few stationary activities emitting green house gases and falling under the scope of the Protocol. Due to these facts Iceland managed to negotiate for increased quantified emission limitation or the cap of 110%. Furthermore, the 10% increase, compared to the base line year of 1990 equally 100%, was not considered acceptable either. So during the Conference of the Parties held in Marrakesh in 2001, a particular arrangement was agreed upon, Decision 14/CP.7 Impact of single projects on emissions in the commitment period, allowing for separate reporting of carbon dioxide emissions not exceeding an average of 1.6 million tonnes annually during the first commitment period. Report of the Conference of the Parties on its Seventh Session, held at Marrakesh from 29 October to 10 November 2001. FCCC/CP2001/13/Add.1. On 23rd of May 2002, Iceland finally ratified the Kyoto Protocol despite not being able to fully utilise the flexible mechanisms, the climate regime’s carrots if one prefers, due to the conditions laid down in Decisions 14/CP.7. See further: Jóhannsdóttir 2003, pp. 19-49.

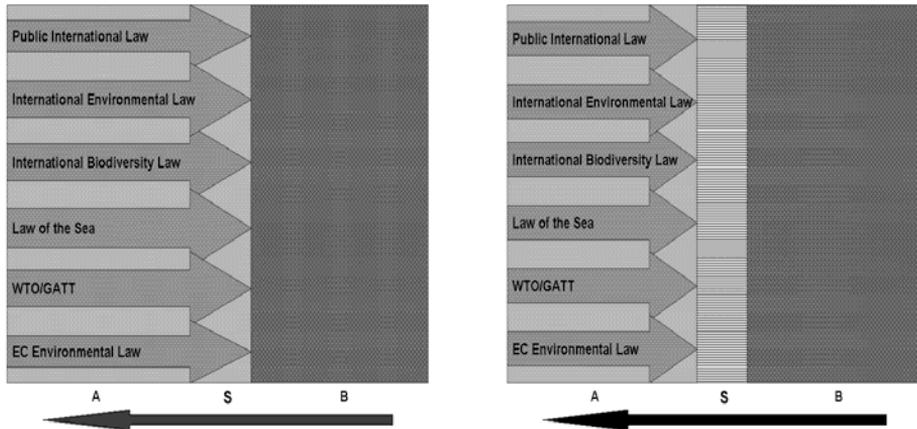


Figure 19

The figure above represents, metaphorically of course, this composition. Several international legal systems, or controlling programs, affect the environment at the same time. The arrows indicate a general flow of international obligations A, rights and duties that will eventually have an effect on the environment, the darkish field to the right, B. In the box to the right, S has been added to illustrate two things: first S functions in one way as a filter, and also as an active factor that should influence the situation within the environment, including biodiversity in nature. The feed-back arrows B-A are as usual to underline that the environmental situation should eventually contribute to the formation of new substantial obligations. What these systems have in common is that all of them hold particular default principles which, under particular circumstances, become the ruling principles.

5.3.8 Some informative concluding remarks

Although codification has increased considerably, the universal fundamentals of the international legal order remain relatively stable. International treaty obligations in the environmental field usually entail states having to enact national legislation. Otherwise the behaviour of individuals and legal entities will not be channelled in a particular direction. This would be typical as land use possibilities would be restricted or even prohibited. However, sovereign states

continue to be the prime subjects of international law and are *the* parties to international treaties and thus responsible under international law.

5.4 Decentralised structure

5.4.1 Introduction

When the international legal order is linked to the way it functions as an environmental control system, three issues are of interest: First, problems relating to disparities in international law-making; second the growing volume of soft law instruments; and finally, the enforcement mechanisms available. In this section, I will tackle some aspects relating to these issues in the light of a decentralised structure.

5.4.2 Lack of centralisation

The international legal order does not contain a typical centre, a centralised legislator is absent, and no constitution or hierarchically organised court system is present. International law, that is treaty law, is not imposed upon states. The system is founded on the *explicit* consent of states to become bound by international obligations.

The UN Charter is nonetheless often described as having constitutional quality and it cannot be legally overruled.³⁴¹ See in this respect the Charter's Article 103 which states that

“[i]n the event of a conflict between the obligations of the Members of the United Nations under the present Charter and their obligations under any other international agreement, their obligations under the present Charter shall prevail.”

Few would reject or doubt the Charter's universal value. The Charter holds many of the general principles of international laws, some of which have a universal status and thus make the charter the world's general parameter in international relations. The Charter includes an emphasis on the maintenance of international peace and security and on the need for co-operation between states in order to solve problems of economic, social, cultural, or humanitarian character. It also

³⁴¹ See *e.g.* Oppenheim's International Law 1996, pp. 11-12.

encourages the promotion of human rights, the equality of states and the peaceful settlement of disputes.³⁴² On the basis of the principle of equal rights and self-determination of peoples, the Charter has the objective of promoting higher living standards and full employment.³⁴³

On the other hand, the Charter does not hold any provision directly relating to the environment, nor does the Charter as such mention environmental problems in so many words. The provision that comes closest to reflecting some sense of the trans-boundary nature of some environmental problems is probably the Charter's reference to the general principle of good-neighbourliness, *cf.* Article 74.

Environmental issues have however not been neglected within the UN³⁴⁴ or by UN entities, such as the ECOSOC, FAO and the UNEP. After the Rio Conference in 1992, a new international entity, under the auspices of the ECOSOC, the Commission on Sustainable Development (CSD)³⁴⁵ was established. M.-C. Cordonier Segger describes it as a "soft law forum"³⁴⁶ and she is probably right in her evaluation. CSD's main task is to monitor the progress and implementation of Agenda 21, and to serve as a broad, international forum for further discussion on, and promotion of multi-levelled implementation of environmental and developmental policies.

Important changes were made to the CSD's mandate in the Johannesburg Plan of Implementation, as the Commission in its work is also to

"(e) [t]ake into account significant *legal developments*³⁴⁷ in the field of sustainable development, with due regard to the role of relevant intergovernmental bodies in promoting the implementation of Agenda 21 relating to international legal instruments and mechanisms."³⁴⁸

³⁴² See further Articles 1 and 2 of the UN Charter and its preamble.

³⁴³ *Ibid.* Article 55.

³⁴⁴ See *e.g.* van Genugten/Homan/Schrijver/de Waart 2006, pp. 94-97 in relation to the Millennium Development Goals, and pp. 113-121 regarding sustainable development.

³⁴⁵ UNGA Res. 47/191 (1992.).

³⁴⁶ Cordonier Segger 2004, p. 68.

³⁴⁷ Italics added.

³⁴⁸ Johannesburg Plan of Implementation, Chapter XI, para. 148. See further on this issue: Cordonier Segger 2004, pp. 61-74. Cordonier Segger approaches international sustainable law as the intersection between social, economic and environmental law, the first pillar consisting, basically, of human rights, the second including international trade law, and the third, international environmental law. *Ibid.*

It remains to be seen what precisely this statement will eventually entail. However it will definitely not be an easy task to execute this due to, *inter alia*, the decentralised origins of international law relating to sustainable development.³⁴⁹ Lastly, the lack of general acceptance of the meaning of the concept of sustainable development will probably increase disparities.

5.4.3 Dispersed preparation and law making

Although the UN Charter can be said to have a universal character and a quasi-constitutional value, international law emanates from many sources. In the environmental field, international and regional treaties are prepared by several international and regional authorities and from time to time by particular groupings of states sharing common interests. In many instances the UN as such,³⁵⁰ or a UN organ, initiates or encourages treaty-making in a particular area. That was the case when the CBD was being prepared.³⁵¹

Noteworthy UN organs have been responsible for preparing important treaties in the environmental field. These include the ILC,³⁵² UNEP,³⁵³ FAO³⁵⁴ and the UNECE.³⁵⁵ Although influential, these authorities lack legislative powers in the traditional meaning of the term *legislative powers*. Only the states themselves have such powers under international law. At the end of the day it is up to individual states to legally operationalise international obligations, rights and duties, at the national level. Moreover, law-making treaties do not become part of international law unless the state which are party to them take certain and necessary steps. As a rule, international treaties have to be accepted, and ratified by the various parties, as do any subsequent

³⁴⁹ Cordonier Segger 2004, pp. 68-73.

³⁵⁰ See in the field of climate change, the UN General Assembly, and the Assembly's resolutions: UNGA Res. 43/53 (1988) and UNGA Res. 44/207 (1989).

³⁵¹ See further *supra* note no. 9.

³⁵² Cf. the Convention on International Watercourses.

³⁵³ Such as the CBD.

³⁵⁴ See *e.g.* the International Treaty on Plant Genetic Resources for Food and Agriculture, (2001) known as the International Seed Treaty, prepared under the auspices of the FAO.

³⁵⁵ See *e.g.* Convention on Environmental Impact Assessment in a Transboundary Context (1991), 30 ILM 800 (1991), referred to the Espoo Convention, its Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (2003), referred to as the SEA Protocol, and finally the Aarhus Convention.

changes and additions.³⁵⁶ Otherwise these instruments will not gain their validity as international law.

5.4.4 The legal sources, hierarchy, and soft law

5.4.4.1 Traditional sources of international law

International law similar to any other law derives its authority from the legal sources that the legal system accepts. When the sources of international law are examined, Article 38 of the ICJ Statute is usually pointed to. Pursuant to the article's first paragraph, *the Court*, when it decides upon disputes that are submitted to it, "shall apply:

- (a) international conventions, [treaties, covenants, agreements, protocols, etc.]³⁵⁷ whether general or particular, establishing rules expressly recognised by the contesting states;
- (b) international custom, as evidence of a general practice accepted as law;
- (c) the general principles of law recognized by civilized nations;
- (d) subject to the provisions of Article 59,³⁵⁸ judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law."

The sources referred to in (a)-(c), or treaties, customary law and general principles of law, are usually referred to as formal sources indicating what the law actually is. The content of each source depends upon the treaty in question, the custom and the subject matter of the general principles of law.³⁵⁹ The reference to general principles of law nowadays also comprises general principles of international law.³⁶⁰ As stipulated under the last item, or (d), judicial decisions and the teaching of theorists are ranked as subsidiary sources of international law. These sources are usually referred to as material sources, since they indicate where the law may be found.³⁶¹

In A. Cassese's opinion the role of international custom as a source of international law is not as important now as it was in the early days. In his view this is due to the diminishing influence of the so-

³⁵⁶ See, also Articles, 11, 14 and 16 of the Vienna Convention.

³⁵⁷ Addition within brackets is mine.

³⁵⁸ Article 59 tackles the legal effects of the Court's judgments, stating: "The decision of the court has no binding force except between the parties and in respect of that particular case."

³⁵⁹ See further: Brownlie 2008, pp. 3-5.

³⁶⁰ *Ibid.* pp. 16-19

³⁶¹ *Ibid.* pp. 4-5

called Western states and increasing influences of other states, such as the developing states, on the development of international law.³⁶²

The nature of the international legal system means that judicial decisions can only be legally binding upon the disputing states. However, the ICJ frequently refers to its own judgments as being binding upon the court.³⁶³ On the latter source, mentioned in (d), references to theorists were more common in the early days of the ICJ (PCIJ) than at present times. However, recent separate opinions that touch upon international law affecting the environment have been based upon the teaching of legal theorists so as to substantiate the developments that have taken place recently in that particular field of international law.

Finally, under paragraph 2 of Article 38 of the ICJ Statute, the Court has power to decide a case on the basis of *ex aequo et bono* – on the basis of equity – if the arguing parties agree thereto. In practical terms this means that the court would decide a case by viewing all circumstances but not on the basis of law.³⁶⁴

Although, the beginning of Article 38 stipulates “[t]he Court ... shall apply”, and the above sources are listed in a particular order, the sources of paragraph 1 are usually named as *the* principal sources of public international law. Obviously these are also the principal sources of international law affecting the environment.

Article 38 can however not be regarded as exhaustive. If international law affecting the environment is focused upon, the volume of soft law is growing and plays an important role in developing the law. The reference to the Court is thus primarily a direction on in which order the sources should be examined and applied. Generally speaking, international treaties and customary rules are valued as being equally important legal sources nowadays.³⁶⁵

³⁶² See further Cassese 2005, pp. 165-166.

³⁶³ This is how the court practices even without *stare decisis* being a principle of international law.

³⁶⁴ See further: Cassese 2005, p. 187.

³⁶⁵ See further on the sources, e.g. Oppenheim's International Law 1996, pp. 22-52, Brownlie 2008, pp. 3-29; Cassese 2005, pp. 153-237, and in Wallace 2002, pp. 7-33. Finally an excellent collection of articles on the sources of international law is available in Sources of International Law 2000, ed. by M. Koskenniemi.

5.4.4.2 *Erga omnes* obligations and *jus cogens* norms

Due to the subject matter of particular and universal values, the international community has – at least theoretically and sometimes even in practice – accepted that some international principles, *inter alia* the protection of the peace, fundamental human rights, the ban against genocide, the right to self-determination of peoples and even, sometimes, environmental protection, have a universal applicability as obligations *erga omnes*.³⁶⁶ N. Schrijver argued in 1997 that the concept of *erga omnes* could *in the future* be more relevant for global environmental problems including ozone layer depletion, the world's biodiversity, pollution of international waters and the threat of climate change. As far as biodiversity and the climate issue are concerned, his view is, *inter alia*, based upon references to particular environmental issues being of "common concern", *cf.* both the UNFCCC and the CBD.³⁶⁷

Obligations *erga omnes* are at the top of the hierarchical order of the sources of international law. Such obligations can and should be protected by all states. Subsequently, any state, whether meeting a traditional interest test or not, could, at least theoretically, act in pursuance of the *actio popularis* principle – which is generally not acknowledged under the international legal system³⁶⁸ – in order to protect the values meant to be guarded by the obligation.

The so-called *jus cogens* (also *ius cogens*) which are peremptory norms (super rules), are also accepted as holding a universal status under the international legal system and enjoy the same hierarchical status as obligations *erga omnes*.³⁶⁹ These are also customs generally recognised by the international community of states as a whole, and from which no derogation is permitted. In line with Article 53 of the Vienna Convention, a treaty that is in conflict with such a norm is void at the time of its conclusion. Further, pursuant to Article 64 of

³⁶⁶ Environmental protection is named by A. Cassese in Cassese 2005, p. 16, but on the other hand, not in Oppenheim's International Law 1996, see further *ibid.* p. 5. These two fundamental sources of international law are however in agreement on the basics of *erga omnes* and its universality as an overarching source of international law. See on particular kinds of obligations *erga omnes* or the ban against genocide, Brownlie 2008, pp. 596-597.

³⁶⁷ Schrijver 1997, p. 239.

³⁶⁸ Oppenheim's International Law 1996, p. 5.

³⁶⁹ Fastenrath 1993, pp. 322-323. See also Cassese 2005, p. 155, on the emerging hierarchy of the sources of international law, and also Brownlie 2008, pp. 510-512.

the Vienna Convention, when a new peremptory norm emerges, an existing treaty which is in conflict with the new one becomes void and terminates.³⁷⁰ Which principles would qualify for *jus cogens* status, on the other hand, is not fully clear. Most theorists, however, include the prohibitions on the use of force,³⁷¹ genocide, torture, slavery and some of them also include the prohibition of massive pollution of the world's commons.³⁷²

In relation to the principle of common heritage of mankind,³⁷³ Schrijver theorises *jus cogens* as well, but arrives at the conclusion that the principle is lacking a foundation in international law. He is furthermore of the opinion that more is needed than a treaty provision in order to ensure a *jus cogens* status of a particular principle.³⁷⁴ Schrijver also theorises the principle of permanent sovereignty over natural resources and asks whether it has earned a *jus cogens* status.³⁷⁵ By applying a three criteria test,³⁷⁶ he arrives at the conclusion that the principle cannot be afforded the status since it does not fulfil all of the criteria. In his view that does nevertheless not alter the fact that the principle has a profound status in international law and it is generally acknowledged by states. Moreover, the principle in Schrijver's view does not override other principles of international law and therefore new preventative and cooperative duties can be placed upon states.³⁷⁷

It is of interest how these issues are actually argued in the context of their relation to the environment.³⁷⁸

³⁷⁰ See also Bos 1984, pp. 95-97.

³⁷¹ See further *Case Concerning Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v. United States of America)* (Merits) June 27, 1986, ICJ 1986, pp. 14-140, at pp. 90-91 and 100, cited as *the Nicaragua Case*, a case that is often used as support for the *jus cogens* status of the principle.

³⁷² See further: Cassese 2005, p. 16, and Brownlie 2008, pp. 510-511.

³⁷³ Article 136, cf. Article 311(6) of the UNCLOS refer to the concept. From the wording of the latter it is clear that *jus cogens* is in the background.

³⁷⁴ Schrijver 1997, pp. 221-222.

³⁷⁵ One of the treaties that Schrijver is referring to is the CBD. *Ibid.* p. 375.

³⁷⁶ A principle being (1) largely accepted and recognized, a criterion which is fulfilled; (2) accepted by large majority of interested states as *jus cogens*, which the principle does not pass, and (3) that no derogation is permitted, which the principle does not pass either in Schrijver's view. *Ibid.* pp. 375-377.

³⁷⁷ See further: *Ibid.* pp. 374-377.

³⁷⁸ In *the Nuclear Test Case*, New Zealand indicated an *erga omnes* obligation by stating: "... the conduct of the proposed nuclear tests will constitute a violation of the rights under international law of New Zealand, as well as of other States; ... Unless such an assessment establishes that the test will not give rise, directly or indirectly, to radioactive contamination of the marine environment the rights under international law of New Zealand, as well as the rights of other states, will be violated"; *ibid.* para. 6.

In the *Gabčíkovo-Nagymaros Case* Hungary argued that “subsequently imposed requirements of international law in relation to the protection of the environment precluded performance of the Treaty [bilateral treaty of 1977 between Hungary and Czechoslovakia]. The previously existing obligation not to cause substantive damage to the territory of another State, had, Hungary claimed, evolved into an *erga omnes* obligation of prevention of damage pursuant to the “precautionary principle”. On this basis, Hungary argued, [that] its termination was “forced by the other party’s refusal to suspend work on Variant C”. Slovakia argued, in reply that none of the intervening developments in environmental law gave rise to norms of *jus cogens* that would override the Treaty. Further, it contended that the claim by Hungary to be entitled to take action could not in any event serve as legal justification for termination of the Treaty under the law of treaties, but belonged rather “to the language of self-help or reprisals”.³⁷⁹ To these claims and argumentation the Court replied: “Neither of the Parties contended that new peremptory norms of environmental law had emerged since the conclusion of the 1977 Treaty, and the Court will consequently not be required to examine the scope of Article 64 of the Vienna Convention on the Law of Treaties. On the other hand, the Court wishes to point out that newly developed norms of environmental law are relevant for the implementation of the Treaty and that the parties could, by agreement, incorporate them through the application of Articles 15, 19 and 20 of the Treaty.”³⁸⁰ The Court finally concluded: “The Court would set a precedent with disturbing implications for treaty relations and the integrity of the rule *pacta sunt servanda* if it were to conclude that a treaty in force between States, which the parties have implemented in considerable measure and at great cost over a period of years, might be unilaterally set aside on grounds of reciprocal non-compliance. It would be otherwise, of course, if the parties decided to terminate the Treaty by mutual consent.”³⁸¹

5.4.4.3 The problem of soft law

An important source of international law affecting the environment, and one not covered by Article 38 of the ICJ Statute, are various instruments that can be labelled as *soft law*. I will therefore tackle some problems relating to the diverse soft law instruments in this subsection. Soft law instruments are frequently relied upon in the environmental field and problems relating to their acceptance as real sources are therefore legitimate. A large body of soft law is available in the field of international biodiversity law.

But what is meant by soft law?

Unfortunately the case was dismissed without the Court taking a stand on these arguments.

³⁷⁹ *The Gabčíkovo-Nagymaros Case*, para. 97.

³⁸⁰ *Ibid.* para 112.

³⁸¹ *Ibid.* para. 114.

J. Klabbers points out that not all theorists are referring to the same phenomena when they discuss soft law.³⁸² Some include political or moral commitments that do not have any direct legal implications, while others adhere more strictly to those with legal significance, albeit soft.³⁸³ Furthermore, as he argues, one of the problems is that knowledge on how states actually react on soft law issues is limited.³⁸⁴ Furthermore, Klabbers argues, international tribunals often seek to give the impression that the soft law instruments they are dealing with actually reflect aspects of customary law.³⁸⁵

It is true that in the environmental field, several landmark declarations, such as the Rio Declaration, fall into the category of soft law. The same goes for the various decisions (including resolutions and recommendations) decided upon by COPs. Both the CBD and the Ramsar Convention rely upon further rule-setting in order to ensure the effectiveness of the regimes.

However, one should always analyse the contents of the individual soft law instrument, since, as is the case with the Rio Declaration, some of their principles may have come to earn a customary status, *cf.* the Declaration's Principle 2, to provide an example.

As I view it, the main emphasis should be placed on analysing each soft law instrument, before drawing conclusions on its legal relevance. Sometimes, as Klabbers also points out,³⁸⁶ the instruments themselves explicitly indicate their non-legal character. He presents an example of this category in the Forest Principles of 1992.³⁸⁷

Thus the states initiating the making of the respective instruments do not regard them as legally binding under international law. The problem with these kinds of instruments is perhaps how other states and the international community as such evaluate them. If, however, they are actually followed, the practice may eventually serve as evidence of *state practice* and lead to the formation of a customary rule.

³⁸² Klabbers 1996, p. 167 *ff.*

³⁸³ *Ibid.* pp. 168-169. See also Cassese 2005, pp. 196-197, taking a rather lax approach on the concept of soft law.

³⁸⁴ Klabbers 1996, p. 171 *ff.*

³⁸⁵ Klabbers provides examples from the practice of several international tribunals, *ibid.* pp. 172-174.

³⁸⁶ *Ibid.* p. 171.

³⁸⁷ Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests (1992). Report of the United Nations Conference on Environment and Development, A/CONF. 151/26 (Vol. III). Known as the Forest Principles.

At the same time the *opinio juris*³⁸⁸ condition may still be difficult to demonstrate.

The process of evaluating the real legal effects stemming from a particular soft law instrument can be rather difficult. At the least the legal effects are more than none; but presumably not equal to the ones of international treaties or customary law. How much or how profound the legal effects actually are can be difficult to articulate.

When I use the term *soft law* in this study, I presuppose that some legal effects are associated with the respective instruments, but I do not necessarily agree with the strict division provided by Klabbers that excludes policy instruments. How, precisely, rich or profound legal effects stem from these instruments, however, is difficult to determine and needs examination in each case.

5.4.5 Enforcement and dispute settlement

The international legal order is often described as being ineffective due to its lack of centralised means of enforcement.³⁸⁹ There *are*, however, means available, though decentralised and perhaps not necessarily super effective, nor particularly directed towards biodiversity in nature or the operationalisation of ecological sustainability.

First, however, what does *enforcement* of international law actually mean? In this study the term is understood to refer to as judicial remedies, both in regard to civil liability³⁹⁰ and pursuant to the principle of state responsibility.³⁹¹ Various compliance mechanisms under the auspices of international organisations – including collective enforcement mechanisms (sanctions) imposed by the Security Council³⁹²

³⁸⁸ Or: *opinio juris sive necessitatis*.

³⁸⁹ Noortmann 2005, pp. 2-3.

³⁹⁰ This kind of liability is always based upon an international treaty and remedies are sought by individuals through national courts. See an example of such an arrangement in the Nordic Environmental Protection Convention of 1974, 8 ILM 591 (1974), cited as the Nordic Convention, Article 3.

³⁹¹ Sometimes referred to as international tort law. Rules on state responsibility have evolved from the practices of states, international tribunals and international arbitration tribunals. Rules on states responsibility are generally accepted to have the status of customary law. Cases based upon the principle are always tried before international courts where one state brings forward claims against another state and argues a breach of an international obligation, either in line with a particular treaty or with customary law.

³⁹² See further the UN Charter, chapter V, and particularly Article 24, and also Article 103 of the Charter. The Security Council is in fact the only real centralised executive

– are available. Furthermore, some compliance mechanisms have been established as part of particular international regimes and which are meant to review and ensure the compliance of participating states.

States bear an obligation to settle their disputes peacefully.³⁹³ If individual states are in a disagreement on a legal issue, their dispute can usually be brought before an international court. The most important of these courts in this respect are the ICJ and ITLOS. The UN Charter, Articles 92-96, provides the ICJ with its foundation. In line with Article 36(1) of the ICJ Statute the ICJ has jurisdiction in all contentious cases, which the parties refer to the court, and in all matters specially provided for in the UN Charter. Sometimes individual treaties stipulate that a disagreement can be brought before the ICJ. However, as outlined in Article 36(2) of the Statute, the parties themselves decide whether to accept the jurisdiction of the ICJ or not.³⁹⁴

The ITLOS, on the other hand, is established in accordance with Annex VI to the UNCLOS.³⁹⁵ ITLOS began to operate in 1996 and has competence to adjudicate in disputes that arise between the parties to the UNCLOS and that concern its interpretation and application.³⁹⁶ In line with Article 33 of the ITLOS Statute, the Tribunal is competent to deliver judgments that are final and binding upon the parties to the dispute. Finally, and like the ICJ, ITLOS is also competent to deliver opinions.

Disputes that concern the interpretation or application of the UNCLOS can thus be brought before the ITLOS. ITLOS on the other hand is optional in this respect since the UNCLOS provides four avenues for international dispute settlement. ITLOS is but one of them, *cf.* UNCLOS' Article 287 on the choice of procedure. The other three are: the ICJ, an arbitral tribunal in line with Annex VII of the UNCLOS, which is the default dispute settlement avenue, and finally a

body within the international legal order and is, *inter alia*, empowered to execute UN decisions.

³⁹³ See further on the obligation: Cassese 2005, pp. 283-289.

³⁹⁴ The ICJ has sometimes been criticised for its strict legal method, see *e.g.* the conclusion in *the Nuclear Test Case*.

³⁹⁵ Statute of the International Tribunal for the Law of the Sea, cited as the ITLOS Statute.

³⁹⁶ See further part XV of the UNCLOS outlining precisely which disputes can be brought before the ITLOS, and particularly its Article 288 on jurisdiction. See also Treves 1999, pp. 6-9, and particular p. 7 on the compulsory jurisdiction of the ITLOS.

special arbitral tribunal in line with Annex VIII. See further Article 287 of the UNCLOS.³⁹⁷

Neither the ICJ nor the ITLOS have any real teeth since they lack real powers to enforce their judgments.

As international law has developed, however, particularly international law relating to the environment, several enforcement and compliance mechanisms have been established in line with treaties in order to influence the participating parties. These mechanisms are usually soft in the sense that they seldom force the states to take particular measures. Furthermore their legal effects are, as has been indicated, *soft* and need particular examination in each case. However, some of the measures taken are capable of exerting political pressure.

Examples of such arrangements are, *inter alia*, found in the Ramsar Convention; *cf.* its Article 6(2)(d) where the COP has the power “to make general or specific recommendations to the Contracting Parties regarding the conservation, management and wise use of wetlands and their flora and fauna”. Moreover, the inclusion of a Ramsar site on the so-called Montreux Record exerts political and moral pressures on the state where an endangered Ramsar site is situated.³⁹⁸

See on the other hand a general lack of such powers under the CBD, except for the beginning of Article 23(4) which states the COP’s right to keep implementation under review and, *inter alia*, to “consider and undertake any additional action that may be required for the achievement of the purposes of this Convention in the light of experience gained in its operation”, *cf.* Article 23(4)(i) of the CBD.³⁹⁹

Finally, at least one international organisation, the International Atomic Energy Agency⁴⁰⁰ (IAEA), one of UN’s specialised agencies,

³⁹⁷ For a general overview of dispute settlements under the UNCLOS, see *e.g.* Churchill/Lowe 1999, pp. 453-459.

³⁹⁸ The Montreux Record was established in line with Recommendation 4.8: *Change in ecological character of Ramsar sites*. The 4th Meeting of the Conference of the Contracting Parties – Report of the Conference 1990.

³⁹⁹ In E. Louka’s view even though international regimes have some form of monitoring mechanisms they are all the same inadequately monitored. Louka 2002, pp. 109-110. On the ineffectiveness of the CBD as a control mechanism, see Jóhannsdóttir 2007a, pp. 277-278.

⁴⁰⁰ The IAEA was established in accordance with Article 1 of the Statute of the International Atomic Energy Agency in 1956, 276 UNTS 3, and the Agency is authorised, *inter alia*, to control the use of special fissionable materials to ensure their peaceful purposes.

has the right to enforce international obligations, control compliance and to conduct site inspections.

5.5 Discussion

In the light of the study's basic objectives and of international objective-setting in the field of biodiversity conservation, I will now discuss the topics that I have introduced.

The international legal order includes several international legal systems that operate in parallel. In spite of the establishment of the UN and its prime organs it is, nevertheless a decentralised legal order. At the same time, the UN's role as an important platform for the realisation of international objectives should not be underestimated. Moreover, the UN Charter provides the fundamental principles of international relations and co-operation, although it remains relatively silent on environmental issues.

Increased codification of international law is something which obviously promotes transparency and legal security. In many instances, however, the codification is based upon fundamental principles that were established long before environmental concerns earned international recognition. Moreover, international law making is dispersed. The fact that treaty texts are prepared by several international organs increases disparities in the understanding of important concepts and recent environmental principles and thus contributes to deficits.

Although the fundamental legal sources of the system, which are commonly accepted as *the* legal sources of international law and providing it its legality, there is a growing volume of instruments – and this is particularly apparent in the field of international law affecting the environment – that belong to soft law. The main problem of soft law is how legally binding each instrument actually is. When this is viewed in relation to the default of the international legal system, then the uncertainties involved in the legal effects of individual soft law instruments increase the significance of the default law.

There are several enforcement mechanisms available under the order. These include the ICJ, which does not have compulsory jurisdiction since the states themselves decide whether or not they accept the court's jurisdiction; the ITLOS which is also optional, since states can either decide to bring cases relating to the UNCLOS to the ICJ or have

the cases decided upon in line with Annex VII of the UNCLOS, which is that system default mechanism. There are also several compliance mechanisms that have been established in line with particular regimes. What these kinds of arrangements have in common is that they are soft.

To conclude: the international legal order represents a rather fractured and decentralised control system that is ill-suited to controlling the behaviour of states when it comes to biodiversity in nature.

I will now return to the theory of deficit introduced in chapter 3. The theory illustrates that it is a long way from the international objective setting, represented by column A in the box to the left below, figure 20, to the achievement of the benefits that eventually materialise in the environment, column D. During the journey from A to D that is through international treaty making, column B, and how the diverse enforcement mechanisms operate, column C, one can expect that deficits will eventually diminish the number of possible operationalisation of international objectives.

The second figure, the box on the right, in figure 20 on the other hand, is to illustrate that the status of D should provide the necessary information (the feed-back factor) and influence the other pillars. Thus, if status reports indicate that international objective setting has not materialised in D, then what takes place in columns B and C needs inspection. The objective in A should however stay intact.

If I now connect the above discussion to the models of deficits, then obviously there is a risk of disparities and failures in the international legal order, when concrete international policies are legally operationalised, thus contributing to an implementation deficit between columns A and B. Furthermore, enforcement mechanisms, column C, are weak, thus contributing to the ineffectiveness of real enforcement under the international legal order.

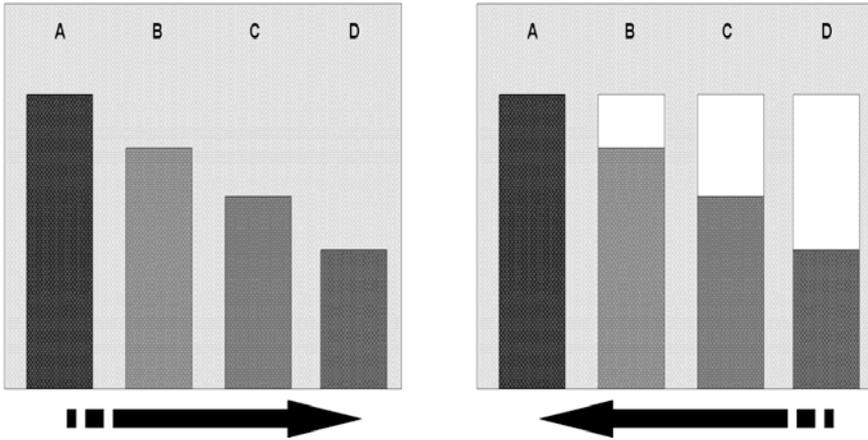


Figure 20

By adding the model of the double deficit, that is when the function of the state *S* is taken into account, figure 21, then the second deficit may occur since the state as such functions as an extra filter. Thus I presuppose that *S* functions as an extra filter and as a barrier that diminishes the possible legal effects of international treaties within national legal systems. As a rule it falls upon the legislative branch to structure the necessary legislation for the legal operationalisation of international objectives.

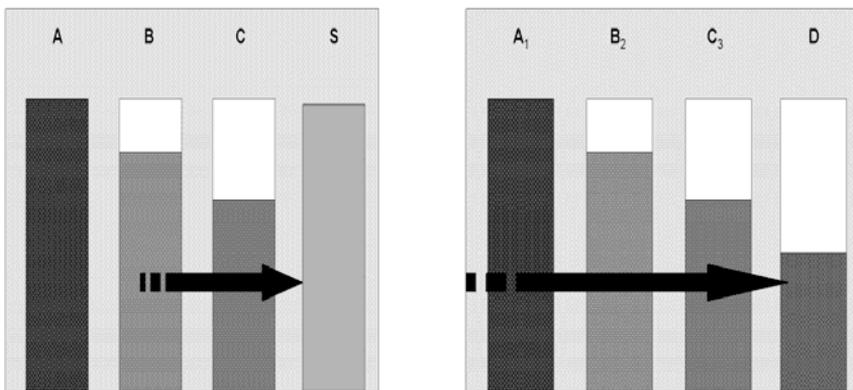


Figure 21

5.6 Concluding remarks

The objective of this chapter was to contribute to the study's theoretical background and to highlight the main characteristics of the international legal order. As previously stated I do not have any doubts about the existence of the international legal order or about international law for that matter. Although the UN and particularly the UN Charter have proven to be important in the development of the international legal order, international relations and co-operation, its fundamentals as a control system are feeble. This is, *inter alia*, due to the fact that international law emanates from many sources, and states can legally refrain from the jurisdiction of international tribunals. The international legal system would presumably be considerably more pro environment, if international obligations *erga omnes* or *jus cogens* norms dictating environmental conservation were to be generally acknowledged. Furthermore, soft law instruments, that are frequently the tools of international law relating to the environment, do not necessarily have any binding legal effects. All of these issues increase the risk that international decision making will be based upon the fundamental principles of the default. All in all, even though the international legal order does reflect some degree of adaptability, it reflect a rather weak, decentralised and dispersed order open to the likelihood of several implementation deficits. Finally, and bearing in mind the fundamental principle of systemic thinking – that any control system needs to be as advanced and complex as the objects being controlled – if ecological sustainability and the need to control the future of biological diversity are theorised, then obviously a decentralised international legal order increases, rather than decreases, control failures.

6. Sustainable development

6.1 Introduction

“Sustainable development is a term with a built-in tone of encouragement and positive aspiration. At the same time, it reflects uncertainties and lacks demarcation.”⁴⁰¹

Since sustainable development policies emerged in the late 1980s, the literature on the subject has steadily increased.⁴⁰² However, some issues relating to the concept are still as unclear now as they were when it emerged. This has not prevented references to sustainable development being made in international treaties, nor has it prevented its legal operationalisation. See, *inter alia*, UNFCCC’s Article 3(4) where the contracting parties are to be held responsible for the promotion of sustainable development, and also Article 2 of the CBD which refers to sustainable use of components of biodiversity. See furthermore the International Seed Treaty’s references to the conservation and sustainable use of plant genetic resources for food and agriculture, *cf.* its Article 1(1); and also the preamble of the Cartagena Protocol with its recognition “that trade and environmental agreements should be mutually supportive with a view to achieving sustainable development” and also the Protocol’s Articles 1 and 2 that are also of interest here.⁴⁰³

⁴⁰¹ Jóhannsdóttir 2005, p. 27.

⁴⁰² See, *inter alia*, a collection of articles in *International Law and Sustainable Development. Past Achievements and Future Challenges*, tackling different aspects of sustainable development and where the editors emphasise the Rio Declaration and its principles, *cf.* Boyle/Freestone 1999, pp. 3-18; *International Law and Sustainable Development. Principles and Practice*, providing a broad range of articles on the subject and outlining views from different parts of the world, Schrijver/Weiss 2004; and G. Hafner who highlights the vagueness of the concept, emphasising some of the Rio principles and how difficult it is to make sustainable development legally operational, in Hafner 2003, pp. 53-66, and finally, Jóhannsdóttir 2005, pp. 27-48, highlighting the environmental consequences of the different approaches.

⁴⁰³ See also a comprehensive survey on sustainable development in international law and international instruments. Schrijver 2007, pp. 231-385.

Sustainable development has many faces. It represents a comprehensive international policy that strives to equalise the economic and social conditions among and within the world's nations. Concurrently, sustainable development represents a mega-objective as well as being a general principle of (international) law.⁴⁰⁴ For example, P. Taylor argues for the customary status of the principle of sustainable development.⁴⁰⁵

The objective of sustainable development includes several sub-objectives – such as the sustainable use of biodiversity.⁴⁰⁶ Its operationalisation is, furthermore, dependent upon a body of principles,⁴⁰⁷ all of which have been deemed necessary in order to reach and maintain the mega-objective.⁴⁰⁸ Thus, few would nowadays argue against the legal relevance of sustainable development, and some would even go so far as to call it a *Grundnorm* in this respect.⁴⁰⁹

The international community and a large majority of states have accepted sustainable development as a political commitment and as an over-all objective. Thus sustainable development is indeed the parameter for the 21st century. This is, *inter alia*, clear if one looks at the UNCED documents, above all the widely accepted Rio Declaration and Agenda 21, both of which are in the process of being implemented and operationalised at international, regional and national levels. By taking this action, states have acknowledged that humanity is facing an ecological dilemma, and that different situations prevail between and within states. It also shows that they are aware that the international legal order needs to be strengthened to facilitate the operationalisation of sustainable development. Sustainable develop-

⁴⁰⁴ See e.g. Backer 2002a, pp. 116-141, Backer 2002b, pp. 477-490, and Westerlund 1997 as a whole.

⁴⁰⁵ Taylor 2002, pp. 123-128.

⁴⁰⁶ CBD, Article 1.

⁴⁰⁷ See further the New Delhi Declaration of 2002, which outlines many of these principles. The Declaration is enshrined in UNGA Doc. A/57/329. See also Ebbesson 1996, pp. 252-254 emphasising the precautionary principle and EIAs; Sands 2003, pp. 252-266 naming the principle of inter-generational equity; the principle of sustainable utilisation of natural resources; the principle of equitable use or intra-generational equity, and finally the principle of integration, and Decleris 2000, pp. 67-124 introducing the twelve principles of the law of sustainable development, see further chapter 3.

⁴⁰⁸ See further on sustainable development and its principles: the Rio Declaration, particularly its principles 2-4 and 10-19; Agenda 21 as a whole, and finally, the Johannesburg Declaration, the Johannesburg Plan of Implementation and finally the New Delhi Declaration.

⁴⁰⁹ Guruswamy 1998, p. 352.

ment furthermore requires a multi-generational approach and challenges systems that we have established ourselves, *i.e.* societal and economic systems at international and as well as national levels.

The concept of sustainable development is one that contains several grey shading to dark areas. One of these has to do with the perception of the concept that seems to be in many ways, and unfortunately, a self-serving journey. This perception persists, even though the Johannesburg Plan of Implementation is clear on the issue that sustainable development should take place *within* the carrying capacity of ecosystems.⁴¹⁰ It seems however, that actors involved may well argue that they are exercising and aiming at sustainable development (though this may be far from the case), as long as they label the development as sustainable.⁴¹¹

In my view, the reason why this happens is related to the fact that the core of the concept seemingly continues to be a mystery to many, making legal progress difficult. The concept is indeed a difficult one, but in its simplicity it reflects a multi-generational approach to environmental and developmental issues that are to take place within ecological limits.

In this study I view sustainable development as an objective and an overarching goal. However, in order to comprehend the objective the *concept* needs to be elaborate. In order to try to shed some light on the concept of sustainable development, the present chapter will explore three issues:

First, it will provide some basic information on the concept's core and inherent limits as well as on the difficulties related to the multi-generational functions and the balancing of interests *cf.* section 6.2. Secondly, it explores why it is so important to have a thorough comprehension of the concept in order to enable the international legal order to become a controlling system for sustaining biodiversity and for facilitating the legal operationalisation of ecological sustainability, *cf.* section 6.3. Thirdly, the principles of ecological sustainability as presented by Westerlund will be introduced and elaborated in section 6.4. Finally, section 6.5, holds some concluding remarks.

Due to the overwhelming volume of material currently available on sustainable development, tackling its theoretical, ethical, political,

⁴¹⁰ See, *e.g.* item 14 of the Plan.

⁴¹¹ Jacob 1997, p. 21 and *passim*, and also Jóhannsdóttir 2005, p. 27.

environmental, economic, social, as well as the regulatory aspects, some choices have been made in order to limit the chapter's size. The following coverage does not, therefore, aim to repeat or describe the content of every theory, view, instrument or provision with some possible connection to the chapter's subject. It aims instead to examine the core concept of sustainable development in order to provide viewpoints for the study's methodology and line of argumentation.

6.2 The concept's complexity

6.2.1 Opening remarks

In its simplest form, the concept of sustainable development refers to development capable of being reached and *maintained* at any time, without distorting ecological limits. This kind of development is different from other kinds, since it is not enough to reach the objective, it must also be maintained. Thus the necessary measures necessitate constant re-evaluation and adaptation to match new environmental situations. The concept is perhaps not easily clarified, nor does the available literature seem to provide any absolute definition. Therefore, obviously, the only logical way to find a starting point is to go back to the Brundtland Report.

6.2.2 The Brundtland Report

The fundamental idea behind sustainable development predates the Brundtland Report. It is *e.g.* present in the Stockholm Declaration, see *inter alia* the declaration's preamble as a whole and principles 3 and 8. Some even link the concept to ancient civilisations, a view that is present in the Separate opinion of Judge Weeramantry in the *Gabčíkovo-Nagymaros Case*.

This may all be true.

As presented in the Brundtland Report, however, the concept of sustainable development values environmental, social and economic issues as a *unity* travelling into the future. The previous paradigm – and most likely still the principal one – was to view the trinity as irreconcilable and consisting of competing components, none of which

it was possible to support without diminishing one or more of the others.⁴¹²

Moreover, the Brundtland concept of sustainable development not only takes into account the needs of the present generations; it considers, too, the future and future generations – including unborn generations – and their chances of being able to fulfil their basic needs.⁴¹³

The following much cited passage of the Brundtland Report's contains the core of the concept

"[s]ustainable development seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future."⁴¹⁴

Consequently, it is the duty of *every* living generation to take the necessary preventive and precautionary measures in order to refrain from jeopardising the overall objective and its maintenance. However, in order to reach and maintain the objective, the law – substantive and procedural and legal orders as such – might have to be adjusted and even fundamentally changed.⁴¹⁵

Regardless the outcome of Rio and Johannesburg, reaffirming the Rio commitments and emphasising the three-pillar approach,⁴¹⁶ the ideological core as introduced in the Brundtland Report,⁴¹⁷ as well as the ecological limits that it proposes, have not been challenged.⁴¹⁸

The *limits* for sustainable development need particular attention since sustainable development should take place without risking or endangering ecological systems and should allow for nature to sustain itself and adapt to changes occurring in the environment.⁴¹⁹ The limits – natural, ecological limits – are *not* subject to political choice,

⁴¹² Brundtland Report 1987, in particular pp. 27-65.

⁴¹³ *Ibid.* p. 40, 43-46 and *passim*.

⁴¹⁴ *Ibid.* p. 40.

⁴¹⁵ Cf. Jóhannsdóttir 2005, pp. 27-48.

⁴¹⁶ See further item 5 of the Johannesburg Declaration.

⁴¹⁷ Brundtland Report 1987, p. 40 and pp. 43-46.

⁴¹⁸ Recent literature support the view that many researchers still take the Brundtland Report's definition as their starting point and its core points seems to be generally accepted. In this respect, see *e.g.* the contributions in Schrijver/Weiss 2004; Bosselmann 2002, Westerlund 2003, Westerlund 2007 and finally Winter 2008.

⁴¹⁹ Brundtland Report 1987, pp. 5, 8-9, 17, 27-29, 32-33, 44-45, and *passim*. In this respect, attention must be paid to the fact that some natural resources are not renewable or their renewal period goes beyond any human perception. Thus to view them as sustainable is perhaps not possible. Utilisation of such resources must be even more cautiously planned since they, by definition, cannot be sustainable, unless the demand matches the resources' renewal time.

nor can they be deliberately altered or negotiated or directly balanced against economic and social interests. This is due to the simple fact that they are ruled by the laws of nature. As previously introduced in chapter 3 where the basic action-reaction model was outlined, nature and natural systems only *react* to anthropogenic impacts. However, the other systems, the social and economic ones, are changeable and can be adjusted or fundamentally restructured in order to reach and maintain sustainable development *within* the ecological limits.⁴²⁰

6.2.3 Multi-generational functions

To add to the complexness of sustainable development, the principles of intra- and inter-generational equity are enshrined in the concept. It can indeed be difficult to make inter- and intra-generational equity legally operational *and* to keep them within ecological limits at any given time. First, however, in order to make the difference between these two principles clear, on the one hand, and allow comprehension of the multi-generational approach on the other, a new figure, figure 22, needs to be introduced. The idea is borrowed from ELM.⁴²¹

⁴²⁰ See also the approach of the Supreme Court of India in *Wellore Citizens Welfare Forum v. Union of India and Others*, JT 1996 (7) SC at pp. 375-395, where the Court stated: "The traditional concept that development and ecology are opposed to each other, is no longer acceptable. Sustainable Development is the answer" and further "During the two decades from Stockholm to Rio "Sustainable Development" has come to be accepted as a viable concept to eradicate poverty and improve the quality of human life while living within the carrying capacity of the supporting ecosystems." Analysed by D. Shanmuganathan and L. M. Warren. Shanmuganathan/Warren 1997).

⁴²¹ Figure 4 in Westerlund 1997, p. 38.

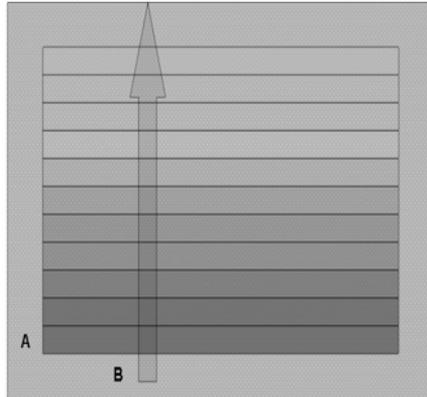


Figure 22

The horizontal bars are to illustrate generations. Thus, the horizontal bar A reflects any living generation. Other bars indicate future generations (unborn generations). The fading out of the dark colour in the horizontal bars and the direction of the vertical arrow B, are to illustrate how difficult it is to predict what will eventually take place in the future or, how any one generation will affect other future generations. The legal response to this dilemma includes precautionary thinking.

The principles of intra- and inter-generational equity also reflect two fundamental objectives. First, intra-generational equity's basic objective, that is the situation within each horizontal bar, is to ensure a certain kind of equality or justice within each living generation. Second, inter-generational equity's objective is to ensure equality between the generations. Thus, each future generation is to have the opportunity of fulfilling their needs, which obviously necessitates the environmental situation being sufficient for that purpose when the time comes. Furthermore, each living generation is to take the necessary measures to ensure this future.⁴²²

In a legal context, a direct balancing between the interests of the present generation and those of future generations is not feasible, and would not meet any accepted legal criteria due to its hypothetical

⁴²² See further: Brundtland Report 1987, in particular pp. 27-65.

status and the remoteness of the interests of the abstract future generations.

The only logical and acceptable legal method is therefore to operationalise these principles and make them legally relevant by making them reliant upon the substantive law that affects each living generation. The legal obligations will thus and eventually influence the behaviour of the relevant actors, which will in turn ensure or at least contribute to the attainment of the necessary environmental quality and an acceptable status of all natural resources, at any present time and in the future.

Westerlund has worked on several issues relating to the question of *how* to adapt a legal order to these multi-generational demands.⁴²³ One of the points that he highlights and that distinguishes sustainable development from other modern policies is the inter-generational equity, or the vertical dimension. However, making this new paradigm able to materialise in the real world, he argues, obviously brings about legal problems. Future generations (unborn generations) do not have any legal rights in the traditional meaning of the term. Thus, as far as legal rules are deemed necessary as an active instrument, the substantive rules – Westerlund gives more weight to the material rules of conduct rather than procedures – effectively implemented and enforced, become the tools of *every* generation to protect the inter-generational equity and the interests of future generations.⁴²⁴

6.2.4 Ecological limits

As I have previously mentioned, the ultimate limits set for sustainable development are ecological and every generation bears the responsibility to respect these limits. They are not subject to *ad hoc* political choice, nor can they be deliberately altered or negotiated or directly balanced against economic and social interests. Even so, these limits have given rise to two, though fundamentally different from each other, ideological approaches to sustainable development. These approaches are sometimes referred to as either weak (soft) or strong

⁴²³ Westerlund 1997, *e.g.* pp. 37-39, and also Westerlund 2003, pp. 23-25, 84 and *passim*.

⁴²⁴ See further: Westerlund 1997, pp. 23-42 and in particular Figure 4 on p. 38.

(ecological) sustainability.⁴²⁵ But there is more. If the inherent limits of sustainable development are to be taken seriously then obviously a distinction needs to be made between two kinds of systems:

- (1) man-made systems, that are the societal and economic ones, and
- (2) natural systems, or ecological systems and the natural foundation.

These two kinds are not compatible or equal, nor can they be directly balanced against each other. This is due to the fact that the latter (2), the natural basis, provides the *premise* for the pair presented in (1). Human beings and their existence and future developments as such depend upon nature and natural resources. Not the other way around. Moreover, this is not only a logical necessity, it is a scientific fact. There is, however, no full agreement on this issue, and some treat these three systems as compatible.⁴²⁶

This takes us to new models, that is weak (soft) and strong (ecological) sustainability.

Weak sustainability is the situation when the three pillars – environmental, social and the economic or the Johannesburg parameter – are directly balanced against each other, sustainable development materialising, according to this approach, when there is an acceptable balance between the pillars. Bosselmann represents this kind of development by introducing three interlocking circles, where their intersection stands for sustainable development. This approach allows for trade-offs in order to reach objectives that fall under one or two pillars however, at the cost for the other pillar or pillars. This approach, not surprisingly, can endanger ecological systems as well as the natural foundation upon which the societal and economic systems depend.⁴²⁷

⁴²⁵ See, e.g. Bosselmann 2002, pp. 90-91; Westerlund 2007, p. 19; Bell/McGillivray 2006, p. 67 and Winter 2008, pp. 27-28.

⁴²⁶ See, *inter alia*, the approach in the *Gabčíkovo-Nagymaros Case*, where Judge Weeramantry came to the conclusion in his Separation opinion that sustainable development represented a legal principle covering a right to development and environmental conservation and that the court's role was to reach some kind of equilibrium between the competing interests by applying the principle of sustainable development. *Gabčíkovo-Nagymaros Case*, Separate opinion, pp. 89-119.

⁴²⁷ Bosselmann 2002, pp. 87-92, and in particular p. 91 where the model of the interlocking circles, cf. Figure A, is illustrated.

Strong sustainability, also known as ecological sustainability, on the other hand does transparently reflect the limits of sustainable development where ecology is a *premise* for social and economic development, or as Bosselmann writes:

“The ... model [strong sustainability] sees the ecology as the overarching system, society as part of it, and the economy as part of both systems.”⁴²⁸

As early as in 1997 Westerlund introduced an identical approach to sustainable development – an ecological approach (strong sustainability) – that was based upon his previous research results.⁴²⁹ It is based upon, and directly linked to, the idea that ecological reality provides the ultimate limits for anthropogenic impacts and the notion of finite. In his view, there is no particular competition between weak and strong sustainability since the ecological limits are obvious. Westerlund’s recent publications have only sharpened his view that ecological sustainability is the only possible interpretation for the concept of sustainable development, since other interpretations would simply result in unsustainability, and thus not fulfilling the sustainability criterion.⁴³⁰

Since Rio, the international community has emphasised on many occasions that sustainable development is a core objective. That was the case in Johannesburg,⁴³¹ where the international community reaffirmed its commitment by declaring its

“... collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development – economic development, social development and environmental protection – at the local, national, regional and global levels.”⁴³²

This approach is often referred to as the three-pillar approach. The fundamental principles of this approach were already present in the Brundtland Report, though, since Johannesburg, there has been a tendency to treat it as a new paradigm. The three-pillar approach is

⁴²⁸ *Ibid.* p. 91 where Bosselmann illustrates the “nested egg”, cf. Figure B.

⁴²⁹ Westerlund 1997, pp. 23-42, *et passim*.

⁴³⁰ See further Westerlund 2007, p. 119 *ff*, and also Winter 2008, pp. 27-28.

⁴³¹ See, *inter alia*, first preambular paragraph of the Johannesburg Declaration and the Declaration as a whole.

⁴³² The Johannesburg Declaration item 5.

usually comprehended in terms of three pillars of equal value and importance: the economic, the social and the environmental.

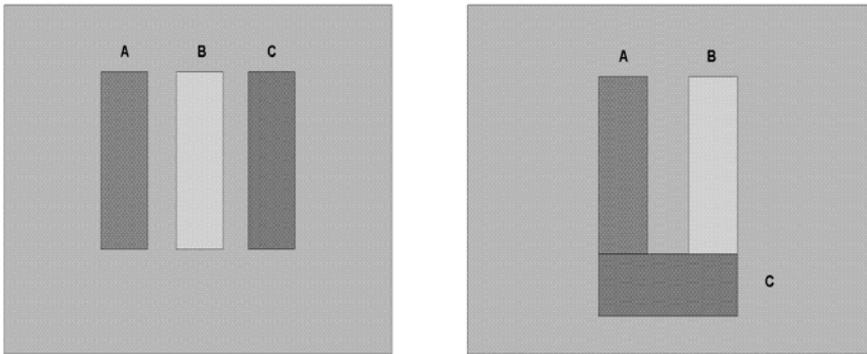


Figure 23

The box on the left in figure 23 contains three pillars, A, social, B economic, and C, environmental or ecological. It reflects what is usually referred to as weak or soft sustainable development. However, the box on the right illustrates how pillars A and B are dependent upon pillar C. C provides the natural basis and the premise for the other two. If one takes away pillar C, then the other two pillars are without foundation and are doomed to collapse.

It is possible to demonstrate this with two new boxes, *cf.* figure 24. The box on the left illustrates what happens when the economic and social pillars become too large or demanding for the world's finite natural resources and thus for the fundamental premise for human existence. The figure on the right shows how all three pillars collapse when the natural resources are no longer able to sustain themselves.

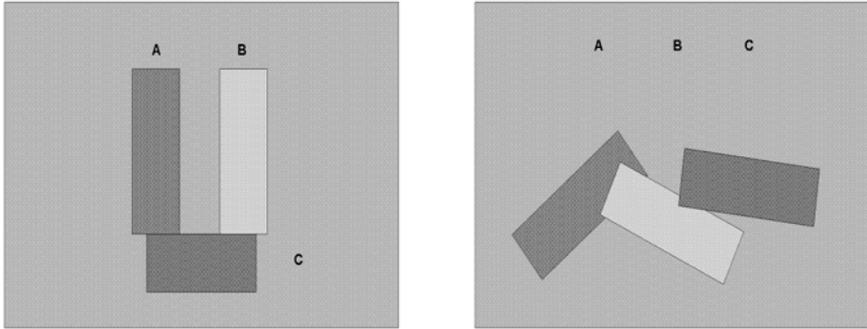


Figure 24

The consequences represented here show that if weak sustainability is relied upon as a premise for further legal developments, then obviously the natural foundation can be endangered. But, on the other hand, if the ecological limits are taken seriously and law structured and applied accordingly, the other two systems need to be restructured to match new perceptions of reality and the finiteness of natural resources.⁴³³

It seems that the basics of the concept of sustainable development and its inherent limits have not been fully accepted by the international community. Given the fact that most recent international instruments do not take a stand on the core issue, it is not unreasonable to presume that not all relevant actors will choose a solution that will have the least possible impact on existing man-made systems, at least not in the short term.

As I stated in the opening chapter, the basic hypothesis of this study lies in the proposition that some overriding principles of the international legal order are counteracting or even diminishing the realisation of ecological sustainability and the 2010 target.⁴³⁴ Furthermore, as outlined in section 6.2, outlining the principal aspects of the concept of sustainable development, that there is not apparent any

⁴³³ This comprehension of the concept is apparently not only mine, see further Winter 2008, pp. 23-45, and particularly his figure on p. 28, and also Westerlund's theory as such.

⁴³⁴ Or "the situations and conditions in the biosphere that are sufficient for sustaining mankind for innumerable generations to come with reliable and safe resilience, including full biodiversity." Westerlund 2007, p. 635.

agreement on the contents of the concept. Thus ecological sustainability is struggling to become part of the international legal order.

6.3 Ecological sustainability – principles

6.3.1 Introduction

The present section's objective is to bring *ecological sustainability* (strong sustainability) strongly into focus as a key element of the concept of sustainable development, as introduced by Westerlund, and to discuss its principles and their relevance to the international legal order. First, some words on the issues introduced earlier, and then the fundamentals of Westerlund's approach and his premises for the principles of ecological sustainability will be discussed.

6.3.2 Some issues introduced earlier

Even though the concept of sustainable development is generally accepted, there is seemingly no general agreement on how to operationalise the over all objective of sustainable development in law. Two basic schools of sustainable development have surfaced. The weak one – the three pillar approach – where the three pillars, A, the social one, B, the economic one, and C the environmental one (the natural base), are treated as being equal, and the strong one – ecological sustainability – where C is the premise for both A and B. Thus A, B and C are not and cannot be treated as equal, and C, the natural base, is the premise for both A and B.

To balance A, B and C directly constitutes a methodological failure as well as a logical error in my view. Further, if the horizontal pillar C in figure 23, right hand box, is removed, then hypothetically, A and B will collapse. But if we balance A, B and C by giving them equal weight, the left hand box, then, eventually, all of them will collapse, since C is subject to the laws of nature and reacts to anthropogenic stress.

Again, by way of reminder, another model, the basic action-reaction model, previously introduced in chapter 3, is here reintroduced.

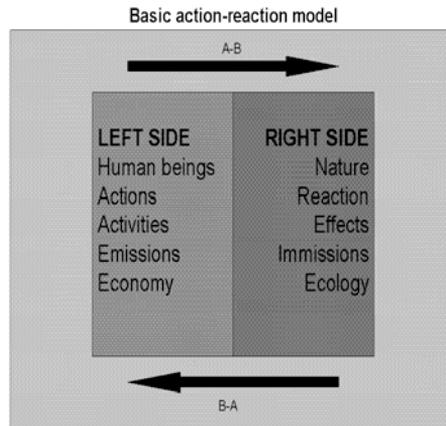


Figure 25

The aim of the action-reaction model is to further the understanding of how law actually influences the environment. The two parallel boxes, left and right, reflect two fundamentally different sides, the actor's side (the left side) and the reactor's side (the right side). The model is to underline that the reactor's side, *reacts* to the actions and activities that take place on the actor's side. Furthermore, the reaction takes place due to the laws of nature, which actors cannot control. On the other hand, human actions and activities can and are controlled, *inter alia*, by the different kinds of regulation, including international law and other controlling mechanisms.

6.3.3 Principles of ecological sustainability

The premise needs to be clear. Although many of the following points have been introduced previously, they will be summed up here to make them more accessible. First, the core task of ELM is to manage sustainable development. It is, therefore, crucially important to understand that sustainable development is not only to be achieved, it must also be *maintained*. Hence it is an endless task. Second, the possible instruments for defining sustainability are those concerned with "environment-related limits".⁴³⁵ These are also known as environmental quality standards. Third, most features of ELM relate to how to implement and operationalise environmental objectives within

⁴³⁵ *Ibid.* p. 121

legal systems. Fourth, legal orders need to be viewed as systems containing interacting components. Finally, the problem is not a general lack of acceptance for a sustainable development, but rather how to make this kind of development operational by relying upon law as an instrument.⁴³⁶

Back to Westerlund that begins with a question: "Is law for the purpose of *harming* mankind?"⁴³⁷ He continues by stating that there are examples of legislation and legal principles that totally disregard humanity.

Though the proposition that law as a whole rests upon civilisation would surely gain general assent, Westerlund continues in devil's advocate vein by asking "should it really be harmful for mankind?"⁴³⁸ and goes on asking elementary questions that address the issue of whether law today, reflecting as it does fundamental human rights and rule of law, can exist without civilisation. He also turns the proposition around and asks whether civilisation can exist without law. He formulates an answer: "... law calls for civilisation and civilisation calls for law"⁴³⁹ before going on to point out the impossibility of civilisation without nature. Furthermore, if law supports the degradation of nature beyond the limits needed for sustaining civilisation then law would turn out to be harmful for civilisation. And even further: "... if law erodes the fundament for civilisation and civilisation collapses, then law – provided it is dependent on civilisation – collapses as well."⁴⁴⁰

There we have it.⁴⁴¹

6.3.4 The trinity

In light of the difficulty of defining sustainable development in precise positive terms, and given that it seems to be more manageable to point out which actions and activities are unsustainable, three principles of sustainability have been identified by ELM:

- (i) the principle of ecological sustainability,

⁴³⁶ See further, *ibid.* pp. 120-122.

⁴³⁷ *Ibid.* p. 121.

⁴³⁸ *Ibid.*

⁴³⁹ *Ibid.* p. 122.

⁴⁴⁰ *Ibid.*

⁴⁴¹ *Ibid.* pp. 121-122.

- (ii) the principle of societal sustainability, and finally
- (iii) the principle of development.⁴⁴²

And as Westerlund points out:

“... maximising economic and social sustainability within the ecological framework is what should be done. Both these belong to the societal side and can be strived for, and achieved, in parallel. If we bring them in under one and the same principle, we would have a principle of societal sustainability. Doing that, we have recognised ecological sustainability as necessary for societal sustainability, and we have also covered both kinds of systems – the Biosphere and the societal ones.”⁴⁴³

6.4 Discussion

There are fundamental differences between the systems upon which sustainable development needs to be based. Due to the nature of these social, economic and the natural systems, the first two mentioned depend upon the third. Thus, the limiting factors for sustainable development are found in that system and that system alone. To approach these systems as compatible or equal is thus a methodological failure. Moreover, due to the nature of inter-generational equity, direct interest balancing between the generations is not legally possible. Thus, in as far as international law and the international legal order are necessary for the legal operationalisation of sustainable development, its fundamentals must be made compatible in order to match the limits of sustainable development. If not, the principle of inter-generational equity becomes meaningless.

Although all levels of international law are in the implementation mode, the principles of ecological sustainability have not established themselves sufficiently. This is partially due to the lack of understanding of what sustainable development actually stands for and partially the fact that ecological sustainability necessitates radical changes in man-made systems. Finally, it seems that the international legal order is evolving towards weak sustainability.

⁴⁴² For details on principles of sustainability, see *ibid.* pp. 119-132.

⁴⁴³ Westerlund 2007, p. 125.

6.5 Concluding remarks

The prime objective of this chapter was to provide some basic information on the concept of sustainable development. Two basic approaches have emerged – weak and strong (ecological) sustainability. Their consequences are fundamentally different when made legally operational. The chapter provided a short discussion on the relevance of sustainable development for the development of ELM. Although international social and economic systems are not part of this study, the approach in the chapters to come underscore the importance of how the international legal order chooses to approach the third system, the ecological one. All of the above issues have contributed to, and shaped, the methodological approach in the present study, an approach that relies upon strong or ecological sustainability as a premise.

7. The role of law

7.1 Introduction

"A French riddle for children illustrates ... an aspect of exponential growth – the apparent suddenness with which it approaches a fixed limit. Suppose you own a pond on which a water lily is growing. The lily plant doubles in size each day. If the lily were allowed to grow unchecked, it would completely cover the pond in 30 days, choking off the other forms of life in the water. For a long time the lily plant seems small, and so you decide not to worry about cutting it back until it covers half the pond. On what day will that be? On the twenty-ninth day, of course. You have one day to save your pond."⁴⁴⁴

As I have previously stated, one of the study's objectives is to elaborate a theory framework to underpin a theory of the default significance. Furthermore, in chapter 4 I introduced and discussed several models and prerequisites upon which the study's methodological approach is built. The objective of this chapter, however, is to discuss several issues relating to the role of law, how law actually functions in relation to environmental control, including biodiversity in nature, and to introduce and discuss the theory of default significance. For purposes of clarification, the objectives of law are briefly introduced below, although it is not my intention to cover philosophical views relating to the topic.

The chapter is divided into five sections, sections 7.2-7.6, with concluding remarks, *cf.* section 7.7. In section 7.2 I introduce the core of Hardin's tragedy. This will be followed in section 7.3 with a discussion of the objectives of law and the role of law. Section 7.4 covers several issues to do with how law actually functions. In section 7.5 several types of norms are outlined. The last material section, 7.6 introduces the main thrust of the theory of the significance of the default.

⁴⁴⁴ Meadows/Meadows/Randers/Behrens III, 2005, p. 13.

7.2 Hardin's tragedy

7.2.1 The tragedy's core

Before going further, I deem it necessary to give Hardin's tragedy some attention.⁴⁴⁵ This theory explains how and what happens when human beings refuse to accept that some of the problems facing humanity, such as the population issue⁴⁴⁶ and thus growing demand for food supplies, cannot be solved with what are referred to as *technical solutions*. In Hardin's eyes, a technical solution is a solution that only requires changes in natural sciences, but not in human values or morality.

In relation to the population problem, Hardin is not sure whether the world is finite, but argues: "In a finite world this means that the per-capita share of the world's goods⁴⁴⁷ must decrease."⁴⁴⁸

Hardin continues:

"But, in terms of the practical problems that we must face in the next few generations with the foreseeable technology, it is clear that we will greatly increase human misery if we do not, during the immediate future, assume that the world available to the terrestrial human population is finite."⁴⁴⁹

Metaphorically, Hardin explains the core of the tragedy of the commons:

"Picture a pasture open to all. It is to be expected that each herdsman will try to keep as many cattle as possible on the commons. Such an arrangement may work reasonably satisfactorily for centuries because tribal wars, poaching, and disease keep the numbers of both man and beast well below the carrying capacity of the land. Finally, however, comes the day of reckoning, that is, the day when the long-desired goal of social stability becomes a reality. At this point, the inherent logic of the commons remorselessly generates tragedy."⁴⁵⁰

⁴⁴⁵ Hardin 1968, pp. 1243-1248. Hardin's background is, *inter alia*, Bentham's goal of "the greatest good for the greatest number", that Hardin deems unobtainable, and Adam Smith's "invisible hand" that presupposes that individuals focusing on their individual gains are led by an invisible hand to promote public interests. These standards will not be further elaborated but few would argue against their enormous influence. *Ibid.*

⁴⁴⁶ See particularly on this issue figure 4 in chapter 1.

⁴⁴⁷ Goods, in Hardin's view, are many abstract things, whose nature depends on the person seeking them. He gives examples such as wilderness, ski lodges, game, factory land, etc. *Ibid.* p. 1243.

⁴⁴⁸ *Ibid.*

⁴⁴⁹ *Ibid.*

⁴⁵⁰ *Ibid.* p. 1244.

Hardin goes on to explain that each user of the pasture has the objective of maximising gain for himself, an objective that will result in both a negative and a positive component. The positive one is the simple mathematical gain which accrues from adding animals to the stock since the proceeds will be solely the owner's. The negative relates to the degradation of the pasture caused by additional animals since the consequences of overgrazing will be shared by all users of the open pasture. Hardin argues that all users will act in the same way and add animals to their stock to maximise personal gain, and thus contributing to land degradation and, eventually, since each user pursues his own best interests, to the tragedy of the commons.

Reflections of this tragedy are, of course, visible in fields other than agriculture. Environmental pollution is one field that Hardin mentions. In this case, however, the pattern is reversed, since something is added to the commons but not taken from them. Hardin explains that pollution is a problem that can be directly linked to the size of the human population and how individual polluters such as factory owners need to be directed into a pattern that makes environmental pollution non-profitable to them individually.

But there is more. Hardin introduces the concept of temperance in relation to pollution and population density and asks how it can be legislated for. Temperance literally means self-control and is understood in this study to refer to the necessity of human self-control. Hardin, citing Fletcher, states "the morality of an act is a function of the state of the system at the time it is performed."⁴⁵¹

The essence here is that morals change due to different or changed circumstances, at a given time and under particular circumstances particular activities or actions are accepted since they do not harm the general public. However, at another time and under different conditions the same would not necessarily be accepted. Therefore the system as a whole needs to be evaluated in conjunction with the activities. Hardin therefore takes into account how law has developed and states that

"[t]he laws of our society follow the pattern of ancient ethics, and therefore are poorly suited to governing a complex, crowded, changeable world."⁴⁵²

⁴⁵¹ *Ibid.* p. 1244 and Fletcher 1966.

⁴⁵² Hardin 1968, p. 1245.

He furthermore claims that the solution that has been chosen⁴⁵³ is to rely upon administrative law since it is impossible to foresee all possible situations. But there is a catch. Hardin does not fully trust officials, it seems, to take sensible decisions, the reason being their lack of an overview over the system as such. He continues by pointing out the obvious, how effortless it is to legislate for prohibition, but how difficult to legislate for temperance. Thus the problem becomes, as Hardin argues, how to rely upon administrative law⁴⁵⁴ but also to develop the “corrective feedbacks”⁴⁵⁵ for the officials, which he himself, however, does not really provide. Moreover, he points out that sometimes coercion is the only way to alter or restrain people’s behaviour though this does not necessarily indicate that he advocates such measures as a means of control.

Hardin suggests that all commons should be abandoned and restricted, *inter alia*, since “[e]very new enclosure of the commons involves the infringement of somebody’s personal liberty.”⁴⁵⁶ Eventually, the tragedy of commons, or a crash, is inevitable unless solutions other than the technical ones are relied upon. Thus we need to re-value values, realise all systems as a whole, accept that the world is finite, and find a way to regulate temperance.

Hardin’s message is simple enough. Due to current economic and social developments and the size of the population, the Earth and its natural resources will simply not be able to sustain humanity nor itself, unless human conduct is further tamed. The world is finite and it is of the outmost importance to elaborate further how to regulate temperance or human self-control.

Hardin tackles other problems in his article. Some relate to the population growth, and the necessity of abandoning the commons in breeding. Others relate to private property rights, which is a choice since we have not been able to come up with anything better and even though not fully responding to the problems of the commons or

⁴⁵³ He has in mind the US legal system.

⁴⁵⁴ Hardin is here presumably referring to the commonly used method of administrative decision-making where, sometimes within a defined frame, decisions are made on the basis of proportionality.

⁴⁵⁵ Hardin 1968, p. 1246.

⁴⁵⁶ *Ibid.* p. 1248.

being just, as Hardin argues.⁴⁵⁷ These issues will however not be further elaborated on here.

7.2.2 Why is Hardin of interest?

First, however, the three filter theory and its model. Both were introduced in chapter 3. There it was argued that the theory is best understood in relation to different means of environmental control and that an understanding of the theory and its rationale was important in relation to a discussion of the role of law in relation to rule of law.

As a reminder, A reflects morals, B economic feasibility and finally, C, the law. As explained in chapter 3, when actors prepare their diverse projects and undertakings (actions), they would presumably first take a stand on whether or not to proceed in relation to the expected environmental effects. Thus, if these effects are expected to be unacceptable, then moral considerations may prevent at least some of the actors from proceeding, regardless of economic gains or legality. If morals do not have any preventive effects, then economic reasons should prevent the actors from going any further. Most actors usually expect their undertakings to be profitable and where that is the case, they would probably proceed. Both A and B would then be passed. Finally, if the undertakings are legal or not regulated at all, then all three filters have successfully been passed and the actors can legally proceed.

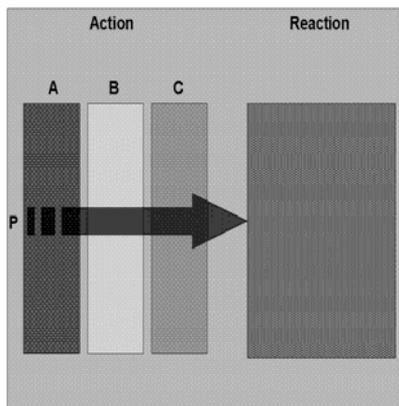


Figure 26

⁴⁵⁷ For further coverage see Hardin 1968 as a whole, pp. 1243-1248.

The passing of all filters successfully does not, however, prevent the tragedy of the commons. In my view the reason lies primarily within the last filter C. It depends upon, first, how the law (individual provisions) is structured, and second, whether there is any legislation available at all.

The first issue, the structure obviously matters. If nothing is clearly prohibited, that is where the rule of law becomes the ruling paradigm, the actors can legally proceed. If framework provisions are relied upon, which are to be filled out at a later stage when the competent authorities take decisions, then no one decision maker has an overview of the total effects of all such decisions.

However, if some kinds of quality standards have been defined, standards which cannot legally be exceeded, then the environmental limit has been provided. Thus all actions that will possibly result in some kind of environmental degradation have also to be subject to some kind of regulation, otherwise the tragedy of the commons will not be avoided. Presumably all such actions have to be controlled by law.

On the second issue, or when no legislation is available, then a different problem arises. Then it is not the type, structure or the substance of law that is the problem, but the lack of legislation. However, as will be further elaborated in section 7.4.2.4, here is where the default law comes into play. In a rule of law state the absence of formal law would normally equal a freedom to act. The same principle applies under international law. Thus in some instances a legal system can be viewed as allowing environmental degradation and thus contributing to the tragedy of the commons.

There is no simple way out of this dilemma.

Hardin's line of argumentation, generally speaking, can be relied upon when all, seemingly, natural resources are assessable without some kind of an effective legal control.⁴⁵⁸ Furthermore, his argumentation is equally appropriate whether one is working with national legal systems or international ones. Hardin's approach should not be hard to comprehend and its core has relevance when the role of law and how law actually functions is theorised. This takes us to the next section on the objectives of law and its role in relation to environmental control.

⁴⁵⁸ Presumably all commons including a defined market for particular goods.

7.3 Objectives of law and the role of law

7.3.1 Adjusting the focus

Objectives of law and the role of law and how law actually functions in relation to the environment, are approached by this study as two separate issues. The latter two, the role of law and how law actually function, are issues that I will elaborate below. Law's purpose in general is not, as such, part of this study and is usually viewed as a subject for jurisprudence or philosophical studies.

When purpose of law is theorised it is usually tied to fundamental questions such as why we have law, its justification, where it comes from, why law and legal order are viewed as necessary to support democracy, etc.⁴⁵⁹ I however presuppose that laws and legal systems exist as well as being necessary. Further, that law and legal systems are generally accepted as tools by means of which desirable objectives may be reached and maintained in human society, or in the society of states when they are placed in the centre of theorisation.

Objective(s) of law can also indicate a narrower issue. It can refer to the objective(s) of a particular piece of legislation or to an objective of an international regime or the cumulative objective(s) of a conglomeration of laws, *e.g.* international biodiversity law.

See also in this respect Article 1 of the CBD, which outlines its objective as being

“the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.”

See also Article 2 of the Straddling Fish Stocks Agreement, stating its objective as

“to ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks through effective implementation of the relevant provisions of the Convention”

⁴⁵⁹ See *e.g.* Líndal 2002, pp. 9-23, and particularly pp. 20-23.

Regimes on biodiversity would, as a rule, have the overall objective of ensuring that biodiversity is not endangered beyond ecological sustainability and thus managed and conserved accordingly, presently and in the future.⁴⁶⁰ The legislative techniques reflected in individual treaties may, nevertheless, differ considerably.⁴⁶¹ Nonetheless, the overall objective would be the same or similar.

Clearly stipulated or implied objectives do not, however, provide any assurance for their successful legal operationalisation. Nor will they necessarily materialise in the environment. This was demonstrated in chapter 3, when ELM deficit theory was outlined and also in chapter 4 where the double deficit theory was introduced.

The second issue, however, the role of law in relation to environmental control, or how law actually functions, aims to demonstrate how different kinds of law (and regulatory techniques), including default law, may contribute to enhanced environmental control. Moreover it may provide an understanding of how law actually functions and also what happens within a legal order when there is no formal law available.

However, in order to elaborate the role of law in relation to how law actually functions as a controlling instrument, the rule of law ideal needs some clarification.

7.3.2 Rule of law

In order to set the theory of default significance in context, a basic understanding of rule of law is a necessary prerequisite to understanding the role of law in relation to environmental control. Thus, in this section I will first introduce some fundamentals of Raz's approach, and thereafter some fundamentals of Dworkin's views. The reason for bringing Raz and Dworkin into the study is as follows:

First, there is no single conception of the rule of law. There are different theoretical views on and aspects to the ideal and disagreements as to which factors should be highlighted when theorising the importance of the rule of law.

⁴⁶⁰ See further international treaties such as the Ramsar Convention, CITES, CBD, the Straddling Fish Stocks Agreement and the Cartagena Protocol.

⁴⁶¹ See for example, on the one hand, the classical approaches present in the Ramsar Convention and the CBD, and on the other, the procedural approaches present in both the CITES and the Cartagena Protocol.

Second, the highlighting of what is considered to be valid law in individual cases, and consequently when the principles of default begin to have an overriding effect, depends upon how the legal systems in question actually operates and function.

Obviously factors that relate to the method of law (traditional usage of the term), particularly rules on interpretation, and which sources the respective legal systems accept as being valid, play a decisive part.

7.3.3 Raz's approach

In his much cited and influential article "Rule of law and its virtue",⁴⁶² Raz outlines his theoretical framework for the rule of law by emphasising the literal meaning:

"The rule of the law".⁴⁶³

He furthermore introduces a broader meaning of the term, obedience of law, and a narrower one – which is of interest for this study:

"that the government shall be ruled by the law and subject to it ... government by law and not by men".⁴⁶⁴

Raz rightfully points out that though rule of law may be observed by governments, that fact alone does not necessarily ensure that the *content* of the law is actually acceptable. Thus, rule of law should not be confused with democracy, justice, equality, human rights, etc. Raz follows Hart and points out that if a law meets the validity test of a legal system's rule of recognition, then it *is* law.⁴⁶⁵

Raz furthermore considers two basics components as essentials of rule of law:

"(1) that people should be ruled by the law and obey it, and (2) that the law should be such that people will be able to be guided by it."⁴⁶⁶

⁴⁶² Raz, J.: "The rule of law and its virtue". *The Law Quarterly Review*, Vol. 93, April 1977, pp. 195-211. Raz's article was, *inter alia*, written as a response to Hayek's ideal of the rule of law, presented in *The Road to Serfdom*, published in London 1944.

⁴⁶³ Raz 1977, p. 196.

⁴⁶⁴ *Ibid.*

⁴⁶⁵ *Ibid.* p. 197.

⁴⁶⁶ *Ibid.* p. 198.

Raz then proceeds to highlight some fundamental principles, which the law and law making should follow, in order to match the rule of law. This collection includes familiar principles such as (1) that all laws should be prospective in contrast to retroactive, open and clear; (2) law should be stable, (3) law should be in harmony with general principles and not exceed them, (4) the independence of the judiciary must be safeguarded, (5) the principle of natural justice must be observed, (6) the courts should have powers to review the implementation of the other principles, (7) the accessibility of the courts must be assured, and (8), crime preventive agencies should not be allowed to pervert the law.⁴⁶⁷

As Raz argues;

“[i]t is one of the important principles of the doctrine that *the making of particular laws should be guided by open and relatively stable general rules.*”⁴⁶⁸

Furthermore:

“... if the law is to be obeyed *it must be capable of guiding the behaviour of its subjects.*”⁴⁶⁹ It must be such that the subjects can find out what the law is and act on it.”⁴⁷⁰

He also puts forward several fundamental principles of individual freedom and human dignity as reasons for valuing the rule of law.⁴⁷¹ However, his response to the question of whether there is an indispensable link between the law and morals is negative, the rule of law, he claims, is a “negative value” that “the rule of law is designed to minimise the danger created by the law itself.”⁴⁷²

7.3.4 Dworkin’s approach

Dworkin, in his *A Matter of Principle*,⁴⁷³ distinguishes between two conceptions of the rule of law ideal. The core of the former – which he

⁴⁶⁷ See further: *ibid.* pp. 198-202.

⁴⁶⁸ *Ibid.* Italics are present in the original text.

⁴⁶⁹ Italics are present in the original text.

⁴⁷⁰ Raz 1977, p. 198.

⁴⁷¹ *Ibid.* pp. 202-205.

⁴⁷² *Ibid.* p. 205-207.

⁴⁷³ Dworkin, R.: *A Matter of Principle*. Harvard University Press, Cambridge, Massachusetts, 1985.

rejects and refers to as the “rule-book” conception⁴⁷⁴ – is premised on the principle that a state’s power should not be exercised against an individual unless such action is based upon a published rule.⁴⁷⁵ It also holds that the rules themselves can only be altered in accordance with preset rules. Furthermore, as he argues, not only is the state’s or the government’s power circumscribed by the rules in the book, they are also binding on the state itself in exercise of its powers.

In Dworkin’s view, this approach is too narrow since it excludes an evaluation of the content of the rule in the rule-book, thus all rules that fulfil the above conditions fall under the ideal of rule of law. In order to change the situation, a new rule needs to be made part of the rule-book.⁴⁷⁶ Dworkin’s last point, however, has an addition; it is linked to the *rights concept* on which his doctrines are premised.

As Dworkin argues, all individuals hold particular fundamental rights. He deems the rights approach a more ambitious approach to the rule of law ideal than the rule-book approach. This conception presupposes that individuals have moral rights and duties in relation to each other as well as political rights in regard to the state, and that an “accurate public conception of individual rights”,⁴⁷⁷ as Dworkin refers to, needs to become part of enforceable positive law. Otherwise law will not reflect objective reality or substantive justice.⁴⁷⁸

7.3.5 Short discussion

The difference between the two approaches should be obvious. Raz does not see a necessary link between the conditions for the rule of law and the substance of law, while Dworkin deems it necessary to take account of the outside reality, including morals. He is thus prepared to go beyond the traditional legal sources, in determining the substance of the law, even though in doing so he is exceeding the strict view of the rule of law as propounded by Raz.

Viewed in the light of how international biodiversity law and the different legal techniques have developed, questions on the legal status of particular principles as well as problems relating to difficul-

⁴⁷⁴ Dworkin 1985, p. 11.

⁴⁷⁵ From which the “rule-book” metaphor draws its label.

⁴⁷⁶ *Ibid.*

⁴⁷⁷ *Ibid.* pp. 11-12.

⁴⁷⁸ *Ibid.* p. 11 *et seq.*

ties in establishing the law in individual cases, become acute. After all, international biodiversity law emanates from several different sources, some of which have limited legitimacy under the international legal order.

Their legal relevance should, however, not be diminished. Furthermore, and in many instances, international law is based upon the neighbour law conception. As a result, when rule of law is tied to the international legal order as a control system, a basic problem crystallises, namely how and when the default of the international legal order becomes important.

But first ELM's role of law as means of control in relation to the environment.

7.4 How law actually functions

7.4.1 Introduction

ELM theorises law as a means for environmental control and ties law to the rule of law ideal.⁴⁷⁹ Further, ELM is seemingly responding to the criticism of the so-called *command and control* approach.

Many argue that command and control leads to a negative image of environmental law as well as being ineffective since it does not allow for much flexibility in decision-making. The advocates of this view usually prefer other means of control such as the use of economic instruments and incentive, environmental agreements, quotas, etc.

On the other hand I argue that in order to achieve and maintain the diverse environmental objectives *several* means of legal control may be necessary and they should be concurrently applied. This, of course, includes command and control approaches, environmental quality standards, and when appropriate, different kinds of economic instruments and incentives.

Hardin's tragedy and argumentation constitutes part of the background to ELM. So does the modern democratic state with its sophisticated constitution supporting the rule of law, and providing pro-

⁴⁷⁹ It should be pointed out that ELM as such does not take a clear stand on which theory on the rule of law is actually used. I thus presuppose in this study that Raz's approach is relied upon rather than *e.g.* Dworkin's.

found protection for fundamental human rights and individual freedoms. If that is the case, individuals can from the outset expect certain *rights* – usually fundamental rights – to be respected. Such rights cannot be reduced or abolished unless when overriding public interests so require and then only in accordance with law. Examples of such rights are of course private property rights and rights to conduct economic activities,⁴⁸⁰ both of which are usually provided with legal protection on a constitutional level in democratic states.⁴⁸¹

7.4.2 Active, passive, empty and default law

Law is however a complex instrument. On the basis of the principles of ELM I will now approach law as an instrument of environmental control and of how rule of law functions in this respect. Not only the structures of law (to be covered in section 7.5.2) but also how law functions as an instrument for controlling behaviour differ considerably. In this respect, ELM introduces: (1) active law, or law as an active factor, (2) law as a passive factor, passive law (silent law), (3) empty law, and finally (4) default law.

7.4.2.1 Active law

The first category (1) *active law*, as the adjective indicates, explicitly regulates human conduct by directing, allowing, prohibiting, etc. The law may allocate rights, impose obligations, prescribe restrictions or outlaw⁴⁸² something thought to have unacceptable environmental effects. The legal framework may however allow for exemptions if certain preset conditions are met. As Westerlund outlines, active law states something or it orders a particular kind of human conduct. Human conduct is thus controlled by a particular command. For example, law can restrict particular types of conduct, or the addressees may be required to use particular technology⁴⁸³ to reduce pollution.⁴⁸⁴

⁴⁸⁰ See further: Westerlund 2007, pp. 25-38.

⁴⁸¹ See, for example, Articles 72 and 75 of the Icelandic Constitution, where the former provides private property rights with constitutional protection, as does the latter but with the additional right to conduct any professional activities not particularly prohibited by law so long as reference to public interests can be made.

⁴⁸² See also the following explanation: "Outlawing – by law or in similar ways deciding something as not legal". Westerlund 2007, p. 640.

⁴⁸³ Typical measures in this respect would be ordering the use of best available techniques, or the BAT requirement. See for example Article 2(3)(b)(i) of the OSPAR.

Law may also function in another way.

By providing some fundamental rights a particular protection. The best examples when it comes to the environment relate to private property rights and the right to conduct economic activities. If this is tied to the ownership of land, the law, argues Westerlund, implies that the land owner has a right to degrade his land.

Why?

The reason is the rule of law. If the land owner is not explicitly prohibited from undertaking particular actions on his land, he can legally carry them out. This is obviously not a command and control function. Thus due to the rule of law, law functions here in a way that is permissive to, or at least tolerant of, different kinds of actions, including land degradation, where neither morals nor financial reasons stop the owner from behaving in this way.⁴⁸⁵ If for some reason this right needs to be circumscribed, then new legislation commanding so and fulfilling the respective legal system's requirements is necessary.

Also tied to rights well protected by law, is another function of law or different kind of licensing (permitting, authorisations, etc.) frequently used in environmental law. Typical licences in this respect are operating license for polluting activities.⁴⁸⁶ Thus particular kinds of operations (manufacturing, processing, etc.) are allowed only if they are carried out in line with a licence issued by the competent authority and in accordance with the law. If the operation is conducted in line with the substance of the licence, then it is legal. If not, it becomes illegal.⁴⁸⁷

7.4.2.2 Passive law

The second (2) or *passive law* has effects by implying that there is room for something, as Westerlund argues. Since law also functions as a passive factor, the rule of law becomes a fundamental issue, or the question "[w]hat is the law when there is no law?"⁴⁸⁸

Westerlund connects this directly to the rule of law ideal. He thus concludes that where rule of law is accepted as a fundamental para-

⁴⁸⁴ See further Westerlund 2007, pp. 31-37.

⁴⁸⁵ See further the three filter theory above.

⁴⁸⁶ See e.g. the approach in Directive 96/61/EC concerning integrated pollution prevention and control, OJ L 257 10.10.1996, p. 26, (IPPC directive), particularly its Articles 4, 9 and 14.

⁴⁸⁷ Westerlund 2007, pp. 31-37.

⁴⁸⁸ *Ibid.* p. 27, *et passim*.

digm, actions and activities cannot legally be restricted by the authorities unless in accordance with active law. This underlines the importance of the basic fundamental of law, *legality*. The underlying prerequisite is then that everything is allowed unless particularly banned or otherwise clearly restricted by law.

Passive law – or silent law as Westerlund sometimes refers to⁴⁸⁹ – thus functions by allowing, or at least tolerating, actions and activities which have not been explicitly prohibited or outlawed or otherwise controlled by law. Thus, the rule of law allows *de facto* environmentally harmful conduct and accepts them as *legal* if no active law is available.⁴⁹⁰

7.4.2.3 Empty law

Westerlund continues to theorise. The third category (3) is the concept of *empty law*. This, he writes, includes particular kinds of passive law, empty law, or law that it is not possible to enforce by relying upon the usual means of enforcement. It is “[e]mpty law, although perhaps rich on words, and therefore ineffective.”⁴⁹¹ In relation to the rule of law, empty law can however not be comprehended as allowing something that cannot be enforced, since empty law is not enforceable.⁴⁹²

7.4.2.4 Default law

Finally, Westerlund introduces (4) the *default law* that is

“ ... the preset option ... that will automatically be selected if no instruction to select another option is given.”⁴⁹³

When the default function of a legal order is placed in a particular context and tied to the rule of law, then, as Westerlund argues, the default functions as a freedom to act, since nothing, that is to say no explicit law has been enacted to command human actions and activities or otherwise, limit the freedom to act.⁴⁹⁴

⁴⁸⁹ *Ibid.* p. 28.

⁴⁹⁰ See further: *Ibid.* pp. 26-28.

⁴⁹¹ *Ibid.* p. 28.

⁴⁹² *Ibid.* pp. 28-29, and *inter alia* pp. 34-35.

⁴⁹³ *Ibid.* p. 31.

⁴⁹⁴ See further details on the role of law, *ibid.* pp. 25-38, and also Westerlund 2003, pp. 40-82.

7.4.3 Short discussion and the ties to international law

I have now introduced the main aspects of Westerlund's theory on the role of law in relation to the rule of law. Westerlund does not take a particular stand on whether he is following the ideal as proposed by Raz or by anyone else. In my opinion, this does not, however, diminish his approach as a core issue of ELM and how rule of law functions. The thrust of his theory, that is as I comprehend it and in terms of its importance for the objectives of this study, is the way in which it ties in with the rule of law as this would be determined by the respective legal systems, including the international one. It is obvious that legal approaches, basically particular legal structures, lack of legislation and the legal protection of overriding fundamental rights, play a role when it comes to determining the legal situation in individual cases. So, too, does the question of how law actually functions in a legal order that operates as a control system that will eventually affect the environment. In this respect, the concepts of active, passive, empty, and default law are of importance in relation to the rule of law ideal.

The question that needs to be tackled here is whether Westerlund's theory, or theorising around active law, passive law, empty law and default law, is something that is usable in international law research?

Generally speaking the structures of international obligations are rather different from those of national legislations. International obligations tend to be more openly structured and they seldom prohibit states. Consequently states, as a rule, have some latitude in balancing economic and social interests directly when incorporating international obligations into their legal systems where they eventually will influence the behaviour of the actors.

This may all be true. However, the theory on the active, passive, empty and default laws holds particular fundamentals. It facilitates the understanding of *how* the legal system actually functions when the law is not set forth in concrete terms. Consequently the fundamental principles of the default can become the ruling principles.

In this day and age it so happens that some of the default principles do not particularly support ecological sustainability or the realisation of the 2010 target.⁴⁹⁵ If Hardin's theory is added to the equa-

⁴⁹⁵ See further chapter 11.

tion, then we can say that if all states behave in ways intended to maximise their own interests, and taking into account the growing pressure on land, land-uses, particular components of biodiversity and biodiversity as a whole, then the default of international law does not hold any particular principles that deems the maximisation illegal under that particular order. Thus due to rule of law, this conduct is legal.

7.5 Further on different kinds of norms

7.5.1 General comments

As I have stated, in relation to rule of law and how law actually functions, it is of importance to realise how the different kinds of international law, including the individual norms (provisions), are structured. That was the reason for the discussion of active, passive, empty and default law; it is also the reason for the coverage below.

However, before going on, I will clarify some of the characteristics of international law, including international law affecting the environment.

As Ebbesson outlines, international law can be identified as prescribing, or ordering, prohibiting or permitting states, and thus eventually the content of national law. Moreover, ordering or prohibiting states, means that states must limit or constrain their behaviour accordingly. As Ebbesson also argues, international law relating to the environment is often structured in the form of frameworks that lack accurate information on what precisely is allowed and what is not.⁴⁹⁶ Thus it becomes the task of individual decision maker (including national legislatures) to fill out these provisions and balance the competing interests if the legal structure so requires.

7.5.2 Compatibility theory

On the basis of the above, I will now outline some aspects of Ebbesson's theory on the compatibility of international and national environmental law. The reason for providing this background is not in

⁴⁹⁶ See further: Ebbesson 1996, p. 77. Ebbesson is primarily concerned with the legal situation of individuals however. I deem his theory to be of general value and thus usable when problems other than the legal situation of individuals are theorised.

order to theorise on the compatibility of international and national law on the environment but to use certain information that Ebbesson provides on the consequences of the different structures of international law.

Central to Ebbesson's theory is the realisation of how differently international norms are structured. As far as the objectives of this study are concerned, what is of interest is the notion that the structures can have an effect on the possible realisation of ecological sustainability and the 2010 target. Three types of international structures are thus of interest for this study.⁴⁹⁷ First, balancing norms; second, fixed norms, and third, goal-oriented norms.

The main characteristic of the first type is that the structure defines a legal framework that needs to be complemented by information provided by each state. Within this framework states are allowed to present different interests and external factors in their efforts to balance competing interests. Thus each state has certain latitude on how it will control activities at the national level.⁴⁹⁸

This kind of structuring is quite common in international biodiversity law and several examples can be found in the CBD.⁴⁹⁹ See for example how the beginning of Article 8 is structured:

"Each Contracting Party shall, *as far as possible and as appropriate*:⁵⁰⁰

- (a) Establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity;"

The following example is from the Ramsar Convention. According to its Article 4(2) if a contracting party

" ... in its urgent national interest, deletes or restricts the boundaries of a wetland included in the List, *it should as far as possible compensate*⁵⁰¹ for any loss of wetland resources, and in particular it should create additional nature reserves for waterfowl and for the protection, either in the same area or elsewhere, of an adequate portion of the original habitat."

⁴⁹⁷ Actually, five types of international obligations are theorised by Ebbesson. See further an accessible overview in Ebbesson 1996, pp. 83-99. The other two, or domestic procedures and the non-discrimination obligation will not be used here. *Ibid.* pp. 180-197.

⁴⁹⁸ *Ibid.* pp. 103-135.

⁴⁹⁹ See further the CBD, beginning of Articles 5-7, 9-11 and 14.

⁵⁰⁰ Emphasis added.

⁵⁰¹ Emphasis added.

The second type, the so-called fixed norms, is quite differently structured. Their content is clear enough and no balancing is possible or necessary. These kinds of norms usually contain clear-cut obligations binding states. They are “self-sufficient” as Ebbesson argues.⁵⁰² In international law relating to pollution prevention and control, fixed norms are usually reflected with a numerical reduction or other clear limitation. Thus the maximum or minimum level of emission from particular operations is set forth in numbers or percentages.⁵⁰³ This kind of an approach is apparently not used in international biodiversity law.⁵⁰⁴

Finally, the third and last type is referred to as goal-oriented norms. Their distinctiveness lies in a definition of the goal that is to be reached or maintained by states; that is to say in the environment. Thus the factual environmental situation needs to be reached and maintained in order to fulfil them. As with the fixed norms, the goal-oriented ones do not leave any room for states to introduce particular and external interests.⁵⁰⁵

The last category will be further elaborated in the section below but these norms are also hard to trace in international biodiversity law.

7.5.3 Quality standards and their legal operationalisation

7.5.3.1 General comments

In chapter 3, I drew attention to the importance of the different quality standards. Such norms are indeed one of the core issues of ELM. As Gipperth points out, a reference to quality norms is first and foremost intended to indicate a particular environmental goal. They may however bear different names.⁵⁰⁶ Their preciseness also varies.

What they have in common however, is first that they lack a traditional addressee, and second, their content reflects desirable environmental quality (quantity) or goals to be realised in the environment as such.⁵⁰⁷ In contrast to the diverse rules of conduct, quality standards cannot be successfully operationalised or enforced without

⁵⁰² Ebbesson 1996, p. 90.

⁵⁰³ *Ibid.* pp. 136-162.

⁵⁰⁴ See further chapter 9.

⁵⁰⁵ *Ibid.* pp. 163-179.

⁵⁰⁶ Gipperth 1999, p. 142.

⁵⁰⁷ *Ibid.* pp. 247-248.

some kind of a reliance on the former.⁵⁰⁸ Thus environmental quality standards are sometimes referred to as navigational instruments.⁵⁰⁹

7.5.3.2 Standard EC technique

The usage of quality standards is an established legal technique of EC environmental law, particularly in the part that relates to pollution and pollution control. Examples include, *inter alia*, in the EC water-framework directive that outlines binding environmental quality standards for both surface and groundwater.⁵¹⁰ The aim of achieving good quality water in both cases is a parameter further defined by the directive. Moreover, the Member States are under the obligation to implement the necessary measures to prevent the deterioration of the status of all bodies of both surface water and groundwater.⁵¹¹ See also an interesting example in the wild birds' directive where particular bird species shall be subject to conservation measures relating to their habitats "in order to ensure their survival and reproduction in their area of distribution".⁵¹² Moreover the directive outlines several measures which the Member States are to take in order to reach and maintain the environmental goal.⁵¹³ Hence the Member States are actually to reach these environmental goals *de facto* and incorporation only *de legis* is not sufficient under EC law.⁵¹⁴ Some Member States have had difficulties with the legal operationalisation of environmental quality standards as I touched upon in chapter 3.

7.5.3.3 International biodiversity law

As I have indicated, environmental quality standards are best developed in instruments relating to pollution control. As a distinctive regulatory technique dependant upon the diverse rules of conduct for

⁵⁰⁸ In international law relating to the environment, rules of conduct would typically prohibit something, such as particular activities, or prescribe particular measures. See further *e.g.* Ebbesson 1996, p. 79.

⁵⁰⁹ In Swedish: *navigeringsinstrument*. Gipperth 1999, p. 271. See further Gipperth's principal findings. *Ibid.* pp. 241-243 *et passim*.

⁵¹⁰ Cf. the directive's Article 4(1(a)(iii) and (b)(ii).

⁵¹¹ See further Articles 4 (1(a)(i) and (b)(i) of the directive. See also Bell/McGillivray 2006, pp. 713-719.

⁵¹² Cf. Article 4(1).

⁵¹³ See in particular the directive's Articles 2 and 3.

⁵¹⁴ This is an established principle of EC law. See further Jans/Vedder 2008, pp. 150-156, and Kaczorowska 2009, pp. 366-402. See furthermore Bell/McGillivroy 2006, pp. 188-189.

their successful legal operationalisation, quality standards have not been given much attention in international biodiversity law.⁵¹⁵

As an example P. Sands tackles environmental quality standards but fails to properly identify their legal distinctiveness.⁵¹⁶ He outlines them as “standards [prescribing] the levels of pollution, nuisance or environmental interference which are permitted and which must not be exceeded in a given environment or particular environmental media”.⁵¹⁷ However, the examples that he draws forward are actually reflecting two different things: Classical command and control approaches and rules of conduct intended to prevent further environmental degradation *and* environmental quality standards as these are understood by this study.⁵¹⁸

It is thus of interest to examine which international provisions Sands deems as reflecting environmental quality standards in the field of international biodiversity law. He provides several examples to underpin his view and Articles III and IV of the Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere⁵¹⁹ are, *inter alia*, named in this respect.

The former, Article III, reads as follows:

“The Contracting Governments agree that the boundaries of national parks shall not be altered, or any portion thereof be capable of alienation except by the competent legislative authority. The resources of these reserves shall not be subject to exploitation for commercial profit.

The Contracting Governments agree to prohibit hunting, killing and capturing of members of the fauna and destruction or collection of representatives of the flora in national parks except by or under the direction or control of the park authorities, or for duly authorized scientific investigations.

The Contracting Governments further agree to provide facilities for public recreation and education in national parks consistent with the purposes of this Convention.”

The latter, Article IV, reads as follows:

⁵¹⁵ J. Ebbesson provides several examples of international quality standards in the field of pollution and categorises them as goal-oriented norms. See further Ebbesson 1996, pp. 164-169, *et passim*.

⁵¹⁶ Sands 2003, pp. 155-156.

⁵¹⁷ *Ibid.* p. 155.

⁵¹⁸ The latter are basically in the field of pollution prevention. See, *e.g.* examples on pp. 155-156.

⁵¹⁹ Concluded in 1940. 161 UNTS 193.

“The Contracting Governments agree to maintain the strict wilderness reserves inviolate, as far as practicable, except for duly authorized scientific investigations or government inspection, or such uses as are consistent with the purpose for which the area was established.”

In my view the above examples are not reflecting quality standards as viewed by this study, but rather particular measures (or the actions) that need to be taken. Included are measures such as the establishment of protected areas and the diverse management duties that states undertake in order to preserve and manage biodiversity.⁵²⁰ As a rule they would be made legally operational at the national level by using some kind of command and control legal techniques.

Thus, I evaluate the above examples as general measures that need to be taken to prevent biodiversity loss. They fail to precisely define or identify the exact environmental quality that is to be achieved or maintained. These shortcomings in environmental planning will, however, not be made up for by general objectives, such as those usually present in international treaties relating to biodiversity.

As I have stated it is difficult to find examples in international regimes relating to biodiversity that reflect real quality standards. General treaty objectives, such as the one stipulated in Article 1 of the CBD, are not environmental quality standards but general objectives. Here I have in mind the following:

“The objectives of this Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components ...”

Moreover, the definition of *sustainable use*, cf. CBD’s Article 2, is too general to serve as a usable definition. It is, in my view, no more than simply a desirable and long term objective.⁵²¹

When one scrutinises the various CBD COP decisions, however, particular targets that are reflecting quality objectives and goals are nevertheless visible. Here I am referring to the individual targets of the provisional indicators that have been agreed upon for assessing

⁵²⁰ See further: Sands 2003, pp. 503-505.

⁵²¹ See further Article 2: “‘Sustainable use’ means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.”

the progress in the implementation of the strategic plan of the 2010 target. One of these targets is that 10% of each of the world's ecological regions is effectively conserved. This target includes sub-targets, for marine and coastal ecological regions, inland water ecosystem areas, forest areas, and mountain ecosystem areas.⁵²²

7.5.3.4 Operationalisation

Environmental quality standards are of importance for the legal operationalisation of ecological sustainability and the realisation of the 2010 target. Furthermore they are of importance when one attempts to understand how the international legal order as such functions for environmental control. Hence they make up one component of the theory of default significance, *cf.* section 7.6.

As will be further outlined in chapter 8, international law is, generally speaking, about the right and duties of states. It is traditionally right and duty oriented and describes what states are entitled to and which obligations they undertake. Presently, states are not clearly prohibited from destroying their own biodiversity.

7.5.4 Active, passive, empty and default law

As I concluded in section 7.4.3, the theory on the active, passive, empty and default law is fully relevant when the international legal system is theorised. This is particularly evident when one seeks to understand how the international legal order actually functions as a control system. The theory, *inter alia*, highlights *how* the legal system actually functions when law is not set forth in concrete terms – the default law then becomes the ruling law. Furthermore, when default law is tied to Hardin's tragedy (section 7.4.1) states can, due to rule of law, legally continue to maximise their own interests even though such conduct may eventually result in Hardin's tragedy coming to pass.⁵²³

⁵²² Annex IV, CBD COP Decision VIII/15 (2006).

⁵²³ This is probably the main reason behind the climate problem that Earth is facing today where the atmosphere has been used as a common presumed to be able to cope with anthropocentric impacts.

7.5.5 Norms of *jus cogens* and *erga omnes*

International norms with a *jus cogens* status under the international legal order and *erga omnes* obligations need further clarification. Norms of *jus cogens* and obligations *erga omnes* are at the top of the hierarchical order of the sources of international law.⁵²⁴ From the standpoint of ecological sustainability and the realisation of the 2010 target it matters whether the international community accepts a universal status of particular principles relating to the environment. It can also play a role when it comes to the theory of default significance. As I see it, *jus cogens* norms are thus first and foremost a reference to the substance of and specific legal effects of particular customary rules. However, those same norms are usually regarded as obligations *erga omnes*.

7.5.5.1 Norms of *jus cogens*

Norms of *jus cogens* are peremptory (super rules) and thus universal and absolute. As Brownlie argues, there exists a duty under international law not to recognise a situation that has been created by violating such norms.⁵²⁵

Although I view the theoretical legal status of *jus cogens* norms as perhaps unproblematic as far as this study is concerned, other issues relating to such norms definitely are problematic. One question is: which norms fall under this category? Second, how is it possible, or is it possible at all, to replace them?

Regarding the first issue, many theorists accept that the prohibition on the use of force, genocide, torture, slavery and some even name environmental protection, would fall under the category of *jus cogens*.⁵²⁶ As far as the substance of these principles is concerned, it obviously reflects an acceptance of particular values that should be protected at all times and under all circumstances.

The second issue is of a different nature. Article 53 of the Vienna Convention stipulates that *jus cogens* can only be modified with a subsequent norm of the same character.

What does this mean?

⁵²⁴ Cassese 2005, p. 199. See also chapter 4, where I explained the default or the standard mode with the assistance of figure 18.

⁵²⁵ Brownlie 2008, p. 514.

⁵²⁶ See further section 5.4.5.2, and also Cassese 2005, p. 16, and Brownlie 2008, pp. 510-511.

It is obvious from Article 64 of the Vienna Convention that new super rules can emerge and thus become part of the body of *jus cogens*. However, can a particular *jus cogens* norm cease to exist? If I take Article 53 as an example, this would only be possible if the norm was replaced by another one of the same character that is absolute and thus peremptory. Or as Brownlie writes, *jus cogens* “cannot be set aside by treaty ... but only by the formation of a subsequent customary rule of contrary effect.”⁵²⁷

7.5.5.2 Obligations *erga omnes*

Obligations *erga omnes* can and should however be protected by all states. More accurately obligations *erga omnes* are “[o]pposable to, valid against, “all the world”, i.e. all other legal persons, irrespective of consent on the part of those thus affected.”⁵²⁸ Thus, any state whether meeting a traditional interest test or not, could act pursuant to an *actio popularis* principle in order to protect the values guarded by the *erga omnes* obligation. *Actio popularis* is however generally not acknowledged under the international legal system.⁵²⁹

The international community has – at least theoretically – accepted that some of these obligations, *inter alia* the protection of peace, fundamental human rights, the ban against genocide, the right to self-determination of peoples and even, sometimes, environmental protection, have a universal applicability as obligations *erga omnes*. For example, environmental protection is named by A. Cassese as being an obligation *erga omnes*,⁵³⁰ but on the other hand, Oppenheim’s International Law does not refer to that particular obligation.⁵³¹ These two fundamental sources of international law are however in agreement on the basics of *erga omnes* and its universality as an overarching source of international law.⁵³²

⁵²⁷ Brownlie 2008, p. 510. See further on *jus cogens* in general: *ibid*, pp. 78 and 510-515; Oppenheim’s International Law 2006, pp. 6-7, and Cassese 2005, pp. 155 and 202-207.

⁵²⁸ Brownlie 2008, p. xl.

⁵²⁹ Oppenheim’s International Law 1996, p. 5.

⁵³⁰ Cassese 2005, p. 16,

⁵³¹ Oppenheim’s International Law 1996, p. 5.

⁵³² See further section 5.4.5.2.

7.5.6 Discussion

The present section took the discussion on different kinds of norms further. First by outlining three different categories of international structures as analysed by Ebbesson, second, by explaining and discussing what environmental quality standards have in common, *cf.* Gipperth's findings, and finally by outlining certain facts relating to particular rules of international law, or *jus cogens* and *erga omnes* obligations. Obviously the above categories overlap and some rules would fall into several categories thus, some intersection is present.

The point, however, that I am striving to illustrate is the following: An understanding of what treaty provisions actually cover and how international law as such is categorized in the hierarchy of accepted sources is necessary for the theory of the default significance. Otherwise one will not be able to comprehend how international law actually functions when evaluated as control system and in relation to rule of law.

7.6 The default

7.6.1 Basic hypothesis

In line with the prime objective of the study I will now set forth the outlines of the theory of the default significance. As I have previously argued, ELM recognises and defines several types of law, active, passive, empty and default law. All of them are important for the theory, but particularly the default law and environmental quality standards.

As a reminder, default law is basically the law: (1) when there is no enacted law available in a particular legal system, and (2), the law in a certain context, that is the law in a particular legal subsystem, when no *lex specialis* is available and taking precedence. Default law will however not be properly understood if the rule of law is not clear and how law actually functions in a system. If treaty law in a particular field is unavailable, then the principles of the default in the respective legal systems, including the international one, become relevant. If the available treaty law is not clear enough, or if it consists of passive law or empty law, then the default law may also become relevant.

As a term environmental quality standards includes different standards that describe the environmental situation that is to be reached

and maintained, not in law but in the environment. What they have in common is a lack of a typical addressee. Moreover, they depend upon other rules, usually the diverse rules of conduct for effective operationalisation. Apart from a general shortage of quality standards in international biodiversity law, such standards become ineffective if they are not backed up by clear rules of conduct. Furthermore and as will be more apparent in chapter 9, international biodiversity law is basically rights and duties orientated. In addition the bulk is composed of broadly defined preventative duties, but in the background are two influential default principles.

Thus, if international biodiversity law consists of rights and duties oriented balancing norms, which is often the case, then quality standards become ineffective, that is if they are available at all. Furthermore, the effects of the default of each legal order become even more significant. That does not support the legal operationalisation of ecological sustainability or the realisation of the 2010 target.

7.6.2 Modelling the default

How rule of law actually functions in relation to the role of law will now be illustrated with a model, *cf.* figure 27, below. Its background area (the gray area on the left) is to indicate the default. The two arrows B, illustrate how the default and its principles have an effect on the status within the environment (the dark field on the right).

The box A, on the left, represents international law, basically law-making treaties. The arrow A, connected to that box which points towards the environment, indicates how treaty law affects the environment. Since A contains differently structured obligations that factor and the rule of law determines if, when and how the principles of the default begin to have an effect.

Thus if the rules belonging to A do not explicitly determine the legal situation, the more likely it is that a principle situated within the general default, will begin to have an effect. They can be either beneficial or not, depending on their content and how or if they control states.

If I now bring Hardin's tragedy into the model then, obviously, if the law falling under box A does not explicitly direct or control states, then B is, in principle, activated. If the default law is right and duty

oriented or if it lacks clear connection to environmental quality standards, then with growing pressure, environmental degradation continues, legally, under the international legal system.

Furthermore, the losses – environmental degradation – are either nationalised or globalised. Thus everyone suffers socially, financially and environmental degradation continues. It becomes a race to the bottom.

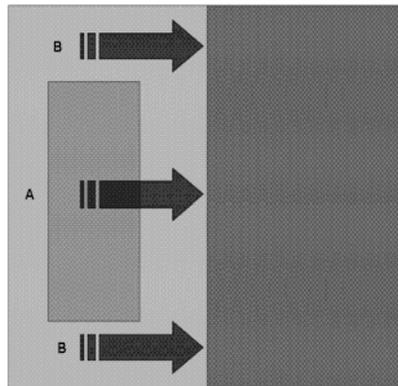


Figure 27

7.7 Concluding remarks

The aim of this chapter has been to introduce and discuss several topics on the role of law in relation to rule of law, furthermore to discuss how law actually functions as a means of environmental control. To further understanding of the necessity of legal control, and how it affects the outside reality, including the size of world's population, the core of Hardin's tragedy of the commons was outlined. His message was and *is* clear enough. Uncontrolled use of any natural resource brings misery to all and degrades the source itself. However, the traditional legal approaches are incapable of responding to the outside reality. The concept of rule of law was thereafter tackled, and two basic views were introduced: Raz's approach and Dworkin's. Although they differ on many issues they do not disagree on the rule of law as such. The problem is thus rather how to identify valid law but not valid law as such. To underpin further the basics of the theory of the significance of the default, ELM's theory on the different kinds of law was outlined, some aspects of Ebbesson's theory on

different international structures, and also Gipperth's findings on the environmental quality norms and their legal operationalisation. Finally, and on the bases of the topics introduced and discussed in this chapter and taking into account what has been previously tackled in chapter 5, the theory of the double deficit and how the study views ecological sustainability, the outlines of the theory of the default significance were discussed.

Part II The significance of the default

8. Fundamental principles

8.1 Introduction

“We are increasingly appreciating that ecosystems involve complex interrelations, adaptive strategies for dealing with disturbance, and a sustainability that depends on change. Boundaries and parts have little meaning in such open systems. Yet humans have a difficult time managing chaos.”⁵³³

As I have indicated, international law affecting the environment has developed towards the furtherance of preventative duties. This has first and foremost taken place through increased treaty making, including in the field of international biodiversity law. In spite of more treaties, the principles that are the prime objective of this chapter continue to be of importance, particularly when the significance of the default is theorised. Thus, the chapter aims to give particular information on these principles that will facilitate the understanding of the general default of international law and how it influences the possibility of reaching and maintaining ecological sustainability, including full biodiversity and the realisation of the 2010 target. The analysis is partially descriptive and partially problem orientated. Thus section 8.2 outlines and discusses three fundamental principles of international law. I will be arguing that they have a decisive effect on the significance of the default and the application of international biodiversity law. The principles that I deem of interest for this study are, first, that of the sovereign right of states to use their natural resources; second, the duty of states to prevent environmental damage. These two are present in principle 2 of the Rio Declaration. A third principle or the one of state responsibility (liability) will also be covered. As I outlined in the study's *Introduction*, states failure to prevent environmental damage can actually lead to state responsibility. In section 8.3 I will be arguing that these principles are diminishing

⁵³³ Nagel/Ruhl 2002, p. vi.

rather than supporting ecological sustainability and the 2010 target. Finally, I will set forth some concluding remarks in section 8.4. In the sub-sections below, the two Rio principles, as well as the third one, or the principle of state responsibility, will be explained, discussed and theorised.⁵³⁴

8.2 The principles

8.2.1 General remarks

Some fundamental international principles play a decisive part in the general default of the international legal system. They have also been influential in the development of international biodiversity law.⁵³⁵ To some extent, early arbitrations, most significantly the *Bearing Fur Seal Arbitration* (1893),⁵³⁶ and the much cited *Trail Smelter Arbitration* (1941),⁵³⁷ as well as some other international adjudications have shaped the content and application of these principles. Included are also the judgements of the PCIJ, principally the *Chorzów Factory Case* (1928) in relation to state responsibility.⁵³⁸ The principles also reflect the legal developments that have taken place within the UN and its prime organs, since the organisation's establishment in 1945. All three are generally accepted to have earned a customary status and nowadays few would argue against such a status. Furthermore, two of them are enshrined in Principle 2 of the Rio Declaration and are also present in Principle 21 of the Stockholm Declaration. The third one, that is the one of state responsibility, has also been codified *cf.* the coverage on the Draft Articles in section 8.2.4.3.

⁵³⁴ And the same pair is present in the CBD, *cf.* its Article 3. It is noteworthy that Article 3, holds the Stockholm version but not the Rio. The reason is probably the fact that the text had been fully negotiated prior the Rio Conference.

⁵³⁵ See further chapter 9 on international biodiversity law.

⁵³⁶ Great Britain v. United States. *Bering Sea Fur Seals Fisheries Arbitration*, cited as the *Bearing Fur Seal Arbitration*, Moore's International Arbitration Awards (1893) 755.

⁵³⁷ United States v. Canada, cited as the *Trail Smelter Arbitration*, RIAA 1905 (1941).

⁵³⁸ *Case Concerning the Factory at Chorzów* (merits). PCIJ Series A. No 17 (1928), cited as the *Chorzów Factory Case* (1928) and also *Case Concerning the Factory at Chorzów* (Jurisdiction). PCIJ Series A. No 9 (1927), cited as the *Chorzów Factory Case* (1927).

8.2.2 The sovereign right of states to use natural resources

8.2.2.1 General information

In the era of sovereign states, it is somewhat surprising to discover that the principle of the sovereign right of states to utilise their natural resources in line with their policies and for the benefit of their inhabitants, was met with some resistance. The reason is the fundamentally different points of views of the two blocks of states of the developed and the developing states (the north-south tension). Some of the developed states saw its emergence as a threat to their foreign investments and economic interests in some of the developing states – that in some instances were former colonies. On the other hand, the overriding interests of the developing states was in gaining full control and self-determination over their territories and natural resources, something which was perceived as paramount for the furtherance of their economic and social development. Eventually the principle gained the necessary international acceptance and legitimacy that finally lead to its customary status.⁵³⁹

8.2.2.2 Foundation

The legal foundation of the principle can be traced back to the transformation of the legal status of many states during their liberalisation following the UN's establishment. It was obviously then paramount that former colonies acquired independence and full control over their natural resources. One UNGA resolution is usually thought to have played a decisive role in this respect.⁵⁴⁰ This is UNGA Resolution 1803 (1962), Permanent Sovereignty over Natural Resources which stipulates that the

“right of peoples and nations to permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national development and of the well-being of the people of the State concerned.”⁵⁴¹

⁵³⁹ See further: Schrijver 1997, pp. 3-12. See furthermore section 5.4.5.2.

⁵⁴⁰ On the development of the claim and the evolution of the principle, *inter alia*, in the light of the furtherance of environmental conservation, a thorough coverage is provided by N. Schrijver, in Schrijver 1997, pp. 36-140.

⁵⁴¹ UNGA Res. 1803 (XVII). UN Doc. A/5217 (1962). See also UNGA Res. 1831 (XVII) (1962) claiming natural resources of a fundamental importance for the furtherance of economic development of states and their populations.

Over the course of time, the wording of the principle has varied. The present wording is found at the beginning of Principle 21 of the Stockholm Declaration stipulating that states

“have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies,”

See furthermore the almost identical wording in Principle 2 of the Rio Declaration. The only difference between the Stockholm version and the Rio one is that the word *developmental* has been inserted into the latter version as to indicate and underline the link to sustainable developmental policies, which became important in the late 1980s and continue to be so, as has been outlined previously.

See furthermore the Charter of Economic Rights and Duties of States,⁵⁴² Article 30 stating that the

“protection, preservation and enhancement of the environment for the present and future generations is the responsibility of all States. All States shall endeavour to establish their own environment and development policies in conformity with such responsibility. The environmental policies of all States should enhance and not adversely affect the present and future development potential of developing countries. All States have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction. All states should co-operate in evolving international norms and regulations in the field of the environment.”

However, the Rio text reads as follows, and the former part of Principle 2 articulates that states

“have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental *and developmental*⁵⁴³ policies,”

There is little doubt nowadays that this principle has earned international acceptance as a customary rule.

⁵⁴² UNGA Res. 3281(XXIX) (1974). See also, pp. 36-30 in UNEP/GC/44 (1975).

⁵⁴³ Italics added.

8.2.2.3 What does the principle allow and limit?

Under the principle, each state has an exclusive right to govern, regulate, plan and utilise their natural resources, whether they be biological or not, and whether situated within their territory or under their jurisdiction or control, without interference from other states or entities.⁵⁴⁴

International law does not hold one complete definition on the term *natural resources* and the definitions that do exist tend to change from time to time. However, several international regimes give bits and pieces of information on which resources are considered natural resources. As time goes by it is becoming clear that more and more resources are being considered as belonging to the cluster. The term was for long circumscribed as being relevant only to natural resources that had traditional economic value. Thus and traditionally, fish stocks, minerals and water resources were considered typical natural resources.⁵⁴⁵ It is clear, however, that the term is not as narrowly understood today as previously.⁵⁴⁶ Moreover, as I comprehend the term it includes land, wetlands, soil, wildlife, fauna and flora, and biodiversity as such.⁵⁴⁷

The sovereign right is not without limits or the execution of the right without legal consequences. Therefore the right needs to be balanced and read in conjunction with the latter part of Rio Principle 2. Thus, it is the duty of states not to cause damage to the environment of other states or to areas beyond states' jurisdictions. Moreover, the sovereign right is to be exercised in accordance with particular principles of international law. Hereunder fall principles such as cooperation with interested states, particularly in the case of shared natural resources – which is probably the most practical aspect of the

⁵⁴⁴ See e.g. Birnie/Boyle 2002, *inter alia*, p. 99.

⁵⁴⁵ See further on the issue: Schrijver 1997, pp. 15-16.

⁵⁴⁶ Traditionally, fish stocks, water and minerals.

⁵⁴⁷ See, e.g. CBD Article 2 which defines the term biological resources in such a way as to include "genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity". See furthermore Principle 2 of the Stockholm Declaration: "The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate." See also, e.g. Jans/Vedder 2008, pp. 30-31, and finally Schrijver 1997, pp. 12-19.

principle's scope of application. In an international context, shared resources⁵⁴⁸ have been thought to include several categories:

- (1) an international water system (surface and ground waters);
- (2) an air-shed or mass above territories of a limited number of states;
- (3) enclosed or semi-enclosed seas and adjacent coastal waters;
- (4) migratory-species that move between waters or territories of several states;
and
- (5) a special ecosystem spanning the frontiers between two or more states, *e.g.* series of mountains, forests or special conservation areas.⁵⁴⁹

To clarify, the concept *global commons* is usually regarded as including the high seas, the sea bed and subsoil and outer space. Moreover, most states would accept that the Antarctic falls within the concept.⁵⁵⁰

Furthermore, and also limiting the sovereign right, states may have accepted specific international obligations by becoming parties to treaties. A typical treaty would in this respect be the CBD that contains particular conservation and managing obligations which are to be implemented in good faith. The CBD's obligations relating to *in situ* conservation are to be made legally operational within national legal systems and are primarily to prevent further biodiversity losses.⁵⁵¹ Depending on the normativity and the structure of the treaty provisions, they may limit the freedom of states to use their natural resources in line with their own policies and particular interests.

The general principle as such does not, however, prevent states from misusing their biological resources or mishandling their territory or their land or its quality as such.⁵⁵² As long as such utilisation

⁵⁴⁸ See also the UNEP draft principles of 1978, Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States. 17 ILM 1097 (1978). Furthermore, UNGA Res. 34/186 (1979) requests all states to use the principles as guidance in the formation of new bilateral and multilateral conventions.

⁵⁴⁹ UNEP/GC/44 (1975), pp. 40-41.

⁵⁵⁰ See *e.g.* Schrijver 1997, p. 246.

⁵⁵¹ The principle of good faith is described in Oppenheim's International Law 1996, p. 38, as being of "overriding importance". See also: The UN Charter, Article 2(2) and the Vienna Convention, *inter alia*, Articles 26 and 31.

⁵⁵² Bugge 1997, pp. 53-72, see also Tinker 1998, p. 423, and Sands 2003, p. 236. See on the other hand a different view presented by van der Vyver where, in relation to a

does not apparently harm other states' interests, or areas beyond the state in question's national jurisdiction, they are viewed by international law as legal. After all, the international legal system is founded upon the rule of law and the system is, as Tinker puts it a "permissive system",⁵⁵³ thus everything that is not particularly prohibited, is allowed and legal.⁵⁵⁴ The views of de Klemm are also in line with this. He argues that states have a sovereign right to destroy nature and that the right is in theory absolute. But he also points out that the right is qualified with the responsibility not to cause damage to the environment of other states or of areas beyond the limits of national jurisdiction.⁵⁵⁵ This view is in line with the basic hypothesis of the default significance that is outlined in section 7.6. This is how the rule of law actually functions. Thus, under the rule of law of international law, states are allowed to destroy their biodiversity unless international law is clearly ordering states otherwise. D. Guruswamy, *inter alia*, points out that the CBD is lacking an explicit commitment to actually protect biodiversity.⁵⁵⁶

Not all would agree to this conclusion. For example, Kokko draws one to the contrary. He argues that Article 3 of the CBD, or that states have the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction, includes state's duty to protect their own biodiversity. He substantiates his view with a reference to the CBD's preamble and Article 20 of the Finnish Constitution.⁵⁵⁷ However, Sands points out that the right of states to utilise their resources is subject to environmental limits.⁵⁵⁸

discussion on third generational human rights, he, *inter alia*, discusses whether international law has reached the point where states have take preventive measures irrespective of the interests of other states. van der Vyver 1992, pp. 485-494.

⁵⁵³ Tinker 1998, p. 433.

⁵⁵⁴ See further: Birnie/Boyle 2002, *e.g.* pp. 111-112 and 137-141, and Sands 2003, pp. 235-241.

⁵⁵⁵ de Klemm/Shine 1993, p. 1.

⁵⁵⁶ Guruswamy 1998, p. 353.

⁵⁵⁷ Kokko 2004, pp. 162-163. For clarification Article 20 of the Finnish Constitution provides the environment and biodiversity a legal protection.

⁵⁵⁸ Sands 2003, p. 241.

8.2.2.4 Discussion

I agree to Sand's point as being reflecting an optimal premise and that the limits should be environmental. Any other conclusion would be contrary to all international objectives and an unacceptable operationalisation of ecological sustainability and the 2010 target. On the other hand there is little evidence available, as yet, that the rights oriented character of international law and of the above principle has been transformed into an environmental oriented limitation or accepts the limits which ecological sustainability sets. However, from a legal point of view, these limits can be difficult to demonstrate, particularly if some kind of environmental damage is anticipated and in the case of gradual environmental degradation. In the absence of a particular international obligation, the next principle, usually, comes into play. The sovereign right to utilise *and* the obligation to prevent environmental damage need to be read in conjunction to each other.

8.2.3 The obligation to prevent environmental damage

8.2.3.1 General information

Sovereign states may have rights, but at the same time they bear duties towards other states as well as towards the international community as such when exercising the sovereign right. The freedom to conduct activities and to undertake operations purely in states' own interests is subject to internationally accepted limitations.

I will now move to the latter part of Rio Principle 2.

8.2.3.2 Foundation

The preventative moment of the latter principle enshrined in Rio Principle 2 (or Stockholm 21) is partially derived from the much cited, but all the same influential, *Trail Smelter Arbitration* where the panel stated

“... no state has the right to use or permit the use of territory in such a manner as to cause injury by fumes in or to the territory of another of the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.”⁵⁵⁹

⁵⁵⁹ 3 RIAA 1905.

In line with the *Trail Smelter Arbitration* the principle is also referred to as the principle of harmless use of territory. The decision, however, reflected a traditional, national tort law approach. Full proof was needed and the damage compensated had to be serious and market value was basically the underlying paradigm set for compensation.⁵⁶⁰ What was eventually compensated did not include environmental damage in the way this is understood today.

Lying behind this principle is the ancient Roman law maxim: *Sic utere tuo ut alienum non laedas* or the principle that everyone should use theirs in such a way as not to harm others. Tinker points out that an observation of the maxim provides *de minimis* duty under international law. Thus, in cases of transboundary pollution, a state is obliged to take *reasonable measures* in order to protect its neighbouring state as well as compensating for damage done, she argues.⁵⁶¹ Reasonable measures would probably exclude far-fetched precautionary measures, simply due to the still uncertain scope of the principle.

Furthermore, when biodiversity is the victim of transboundary pollution, is it difficult to rely upon the transboundary pollution model. This is particularly evident where pollution that has its origins in many states that eventually has adverse ecological effects on the interests of one or other of them. However, the international community has realised this as recent regulatory developments indicate.⁵⁶²

Another aspect is that due to the complexity of biodiversity and ecological functions, not only transboundary pollution but also activities, *e.g.* particular land uses and species utilisation will eventually impoverish biodiversity. This is clear when the HIPPO is theorised.⁵⁶³ In my view, the transboundary model is of little use when it comes to preventing ecological problems either at the national, regional or at the global level.

The above passage, nevertheless, sets the tone, so to speak. Over time it has been underpinned and developed further with codification in international treaties, case law and UN declarations. See fur-

⁵⁶⁰ *Ibid.*

⁵⁶¹ Tinker 1998, pp. 418-419.

⁵⁶² See, *inter alia*, Convention on Long-range Transboundary Air Pollution (1979), 18 ILM 1442 (1979); the UNFCCC and the Kyoto Protocol.

⁵⁶³ See further chapter 1, above.

thermore, the *Corfu Channel Case*⁵⁶⁴ where control of territory was, *inter alia*, founded on the grounds of state responsibility. The court stipulated that a state had an

“obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States.”⁵⁶⁵

See furthermore the Report of the United Nations Scientific Committee on the Effects of Atomic Radiation, where the General Assembly declared

“that both concern for the future of mankind and the fundamental principles of international law impose a responsibility on all States concerning actions which might have harmful biological consequences for the existing and future generations of peoples of other States, by increasing the levels of radio-active fall-out;”⁵⁶⁶

And the UNCLOS, Article 193 stating:

“States have the obligation to protect and preserve the marine Environment.”

And finally UNCLOS Article 194:

“States have the sovereign right to exploit their natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment.”

However, it is not only the liability aspect of the *Trail Smelter Arbitration* that is of primary interest in this section, but also the general principle that is derived from the decisions. It relates to the preventative aspect and the standard of care that can reasonably be placed upon states in order to prevent transboundary harm. See further below.

8.2.3.3 The latter part of Rio’s Principle 2

The preventative principle derived from the *Trail Smelter Arbitration* has long since developed further and turned into an international

⁵⁶⁴ *The Corfu Channel Case*. United Kingdom v. Albania, Judgment of April 9th 1949 (Merits), cited as *the Corfu Channel Case*. ICJ Reports 1949, p. 4.

⁵⁶⁵ *Ibid.* p. 22.

⁵⁶⁶ UNGA Res. 1629 (XVI). Report of the United Nations Scientific Committee on the Effects of Atomic Radiation.

standard, *cf.* the latter part of Principle 21 of the Stockholm Declaration and an identical text from the latter part of Principle 2 of the Rio Declaration, which stipulates that states bear

“responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”

Underpinning the principle’s firm status under international law are several international treaties, some of which predate the Stockholm Declaration. Among them is the International Plant Protection Convention of 1951,⁵⁶⁷ which recognises in its preamble

“the usefulness of international co-operation in controlling pests and diseases of plants and plant products and in preventing their introduction and spread across national boundaries,”

Also the African Convention on the Conservation of Nature and Natural Resources of 1968,⁵⁶⁸ emphasising in Article XVI (1)(b) inter-state co-operation “whenever any national measure is likely to affect the natural resources of any other state”. And finally the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water from 1963,⁵⁶⁹ whose parties undertook to prohibit, to prevent and not to carry out any nuclear weapons tests explosion, if such an explosion “causes radioactive debris to be present outside the territorial limits of the state under whose jurisdiction or control such explosions is conducted,” *cf.* Article I, (1)(b).

See furthermore the legal developments that took place after 1972. See in this respect *e.g.* several UNGA resolutions, such as UNGA Res. 2996 (XXVII) (1972), where the General Assembly recalls Principles 21 and 22⁵⁷⁰ of the Stockholm Declaration and UNGA Res. 3281 (XXIX) (1974), or the Charter of Economic Rights and Duties of States, in particular its Article 30.

⁵⁶⁷ 150 UNTS 67.

⁵⁶⁸ 1001 UNTS 3.

⁵⁶⁹ 480 UNTS 43.

⁵⁷⁰ Stating: “States shall cooperate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction.”

Of importance here is furthermore ICJ's statement in its Advisory Opinion on *Legality of the Threat or Use of Nuclear Weapons*.⁵⁷¹ There the Court recognised

“that the environment is under daily threat and that the use of nuclear weapons could constitute a catastrophe for the environment. The Court also recognizes that the environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn. The existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment.”⁵⁷²

This is probably the strongest declaration of an acceptance of a customary rule and the principle is generally afforded the status.⁵⁷³

The ICJ has confirmed this in its recent environmental adjudications, such as the *Gabčíkovo-Nagymaros Case*⁵⁷⁴ and the *Pulp Mills Case*.⁵⁷⁵

Finally, Article 3 of the CBD, which stipulates that states

“have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”

8.2.3.4 No treaty available

In the absence of a particular treaty provisions dictating or outlining a state's preventative obligation in a given situation, a breach of the general preventative principle may trigger a state's liability under the general principles of international law. Thus, the principle of state responsibility is not the primary obligation, or the wrongful act, but rather a legal means that enables states to seek restitution if they have suffered damage caused by actions (omissions) in another state or under the control of another state.

⁵⁷¹ *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion*, ICJ Reports 1996, cited as the *Nuclear Weapons Opinion*, p. 226.

⁵⁷² *Ibid.* paragraph 29.

⁵⁷³ See e.g. Sands 2003, p. 241.

⁵⁷⁴ *Gabčíkovo-Nagymaros Case, inter alia*, paras. 112 and 140.

⁵⁷⁵ *Case Concerning Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Request for the indication of provisional measures. Order of 13 July 2006, cited as the *Pulp Mills Case*, para. 72.

As I have mentioned above, it is not the legal status of the principle that gives problems, but rather the standard of care that is required of states under the principle if they are to avoid being held responsible for damage. As Sands points out there are a number of options available to states seeking restitution. Some of these are based upon fault (intention or negligence), others on strict liability, and still other on absolute liability depending on particular treaty provisions. Sands also points out the inconclusiveness of international law on the standard of care.⁵⁷⁶ These shortcomings obviously weaken the thesis on the environmental limits.

Due to the preventative nature of the principle, there seems however to be a general acceptance on a particular standard although being inconclusive. Thus states must exercise what is usually referred to as a *due diligence* standard. It includes a duty to introduce the necessary national legislation and means to control public and private actors in order to *protect* other states' interests as well as the global environment from environmental damage.⁵⁷⁷ Ebbesson also points out the difficulties of articulating this standard. Yet, as his study on the compatibility of international and national environmental law theorises, the principle "allows states to balance the interest of environmental protection against other economic and societal concerns, with only marginal international guidance on priorities or content of legislation."⁵⁷⁸ He furthermore sets the standard of *due diligence* into a particular perspective. Hence he argues that states "must take such measures with regard to public as well as private conduct, in order to protect other states and the global environment. This obligation of *due diligence* indicates the conduct to be expected of a good government towards the international community."⁵⁷⁹

I view the above standard as being in many respects an inadequate one, even a useless one, when the conduct of states in relation to biodiversity situated within their jurisdiction is taken into consideration. All the same it may be of some assistance in transboundary polluting issues, within a particular region, and in the case of utilisation of

⁵⁷⁶ Sands, 2003, p. 882.

⁵⁷⁷ See further: Tinker 1998, pp. 418-419, who use the term "reasonable measure"; Ebbesson 2000, p. 53, and Sands 2003, p. 882.

⁵⁷⁸ Ebbesson 1996, pp. 106-107.

⁵⁷⁹ *Ibid.* p. 106. N. Schrijver also points out that states tend to evaluate duties as invading their sovereignty. Schrijver 1997, p. 306.

shared resources. The most obvious point is that ecological degradation has many and interactive causes that can be difficult to isolate and link to particular operations and activities. As indicated in chapter 1, the ecological functions and effects stemming from rich biodiversity are a fundamental premise of all life on Earth and thus a global issue.

8.2.3.5 Pure environmental damage

But the term environmental damage is far from being a clear one under international law, to say the least. Further, it is a common misunderstanding that the terms pollution damage and environmental damage can be used interchangeably; the former is primarily limited to contexts of compensation for economic damage.

Based upon existing treaty provisions,⁵⁸⁰ Sands suggests that environmental damage can be defined

- (1) narrowly and comprising damage on natural resources, such as air, water soil, fauna and flora, as well as the interaction between these components (ecosystems);
- (2) broadly, and comprising all of the components of (1) as well as cultural heritage, and finally,
- (3) even more broadly, the components falling under (1) and (2) and in addition landscapes and environmental amenity.

What the approaches have in common is that they exclude traditional tort law approaches where, basically, damage to human health, life and limb, as well as private properties, valued by using objective and marked oriented methods would be compensated.⁵⁸¹

⁵⁸⁰ See further: Convention on the Regulation for Antarctic Mineral Resource Activities (1988), known as CRAMRA, 27 ILM 868 (1988), Article 8 (1) defining environmental damage "damage to the Antarctic environment or dependent or associated ecosystems." See also Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment (1993), 32 ILM 1228 (1993), particularly Article 2 (7) and (10) outlining, first damage that includes "loss or damage by impairment of the environment" as far as it is not loss of life, personal injury or damage to property, and it is limited to the cost of measures of reinstatement actually undertaken or to be undertaken and the costs of preventive measures and any loss or damage caused by preventive measures, and second the environment includes "natural resources both abiotic and biotic, such as air, water, soil fauna and flora and the interaction between the same factors [ecosystem]; property which forms part of the cultural heritage; and the characteristic aspects of the landscape."

⁵⁸¹ See further: Sands 2003, pp. 876, *et seq.*

Sand's approach is however weakened by the fact that the treaties upon which he bases his theorisation and conclusions have not entered into force. All the same, it represents a theoretical approach that aims to match the reality. In the absence of clear customary rules or a treaty provisions, this does not, however, solve the problem of how much environmental damage will eventually constitute a breach of the preventative obligation and possibly trigger state responsibility in line with international law.

8.2.3.6 Legal developments

International legal developments continue. An interesting and an important approach is reflected in directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage.⁵⁸² As commonly known, the EC has for nearly three decades placed an emphasis on classical nature conservation *cf.* the birds' directive, as well as safeguarding and conserving habitats and wild fauna and flora in line with the habitat directive.

A particular European biodiversity regime has been established through the implementation of Natura 2000 that is based upon the habitat directive.⁵⁸³ Furthermore, under the Sixth Action Programme, the overall aim in relation to biodiversity is identified as, to protect, conserve, restore and develop the functioning of natural system, habitats, wild flora and fauna with the aim to halting desertification and the loss of biodiversity within the EU as well as on a global scale. In relation to this study, the objective of halting biodiversity decline by the year 2010 is the most topical one.⁵⁸⁴

In spite of the progressive EC environmental legislation, including operating licenses and pollution control, environmental damage remains a problem in EC Europe. Thus, the liability directive is primarily aimed at contaminated sites in the Community that are posing significant health risks, and biodiversity losses, as stipulated in the

⁵⁸² Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage, cited as the liability directive. OJ L 143 30.4.2004, p. 56.

⁵⁸³ *Cf.* Article 3 of the habitat directive. See also Verschuuren 2003, pp. 305-328. This emphasis has been part of the Community's policy and international involvement in the development of international law affecting the environment and the EC as such is a party to all recent international regimes in this field. See further Jans/Vedder 2008, pp. 58-66.

⁵⁸⁴ See further the Sixth Action Programme, particularly Article 6(1).

directive's preamble, and its purpose is to establish a framework of environmental liability that is based upon the polluter-pays principle and to prevent and remedy environmental damage, *cf.* its Article 1.

What is of interest here is the fact that the environmental liability directive defines environmental damage in relation to the scope of EC environmental regulation. As stipulated in its Article 2(1), environmental damage includes:

(a) "damage to protected species and natural habitats, which is any damage that has significant adverse effects on reaching or maintaining the *favourable conservation status*⁵⁸⁵ of such habitats or species."⁵⁸⁶

Furthermore included in the term is

(b) "water damage, which is any damage that significantly adversely affects the ecological, chemical and/or quantitative status and/or ecological potential."⁵⁸⁷

And finally,

(c) "land damage, which is any land contamination that creates a significant risk of human health being adversely affected as a result of the direct or indirect introduction, in, on or under land, of substances, preparations, organisms or micro-organisms;"⁵⁸⁸

The directive also defines "damage" as such as

"mean[ing] a *measurable adverse change*⁵⁸⁹ in a *natural resource*⁵⁹⁰ or measurable impairment of a *natural resource service*⁵⁹¹ which may occur directly or indirectly."⁵⁹²

The key terms here are obvious:

(1) favourable conservation statuses, and

(2) measurable adverse change.

⁵⁸⁵ Emphasis added. The term is introduced in the Bonn Convention, see further below, chapter 9.

⁵⁸⁶ Liability directive, Article 2(1)(a).

⁵⁸⁷ *Ibid.* Article 2(1)(b).

⁵⁸⁸ *Ibid.* Article 2(1)(c).

⁵⁸⁹ Emphasis added.

⁵⁹⁰ Emphasis added.

⁵⁹¹ Emphasis added.

⁵⁹² Liability directive, Article (2)(2)

The liability directive provides for particular criteria *cf.* the directive's Annex I, that can be relied upon when the significance of any damage, that has adverse effects on the reaching or maintaining of the favourable conservation status of habitats or species, is established.⁵⁹³

The directive's applicability is however limited. It covers only environmental damage within the scope of the relevant EC acts, basically the birds' directive, the habitats directive, and the EC water-framework directive on the one hand, and on the other hand environmental damage that is caused by particular activities. These are occupational activities subject to official licensing, *inter alia*, in line with the IPPC directive, as well as pursuant to particular directives, *e.g.* directive 99/31/EC on the landfill of waste,⁵⁹⁴ and particular discharges or injection of pollutants into surface- or groundwater in line with the EC water-framework directive.⁵⁹⁵ Strangely enough, most of these activities have been subject to environmental impact assessments in line with Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment⁵⁹⁶ since 1988.

Even though the directive has limited applicability, including its limited geographical scope, it nevertheless provides important information and ideas on the concept of environmental damage and how its significance can be measured in an international context.

8.2.3.7 The basic problem

Thus the problem of international law in general and of international biodiversity law in particular, is, first, lack of baselines and of quality and quantity standards in order to establish whether biological diversity is declining, or to enable measuring to establish whether it is likely to be scientifically damaged by the actions and activities conducted by a particular state or states; and second, the absence of an international acceptance of the concept of pure environmental damage. Thus, the general preventive principle enshrined in the latter part of Rio Principle 2, does not ensure absolute prevention of environmental damage including biodiversity losses, *inter alia*, due to the

⁵⁹³ See further Annex I to the liability directive.

⁵⁹⁴ OJ L 332, 28.12.2000, p. 91.

⁵⁹⁵ See further Article 3 of the liability directive as well as its Annex III listing the activities.

⁵⁹⁶ OJ L 175, 5.7.1985, p. 40, with amendments, known as the EIA directive.

above shortcomings.⁵⁹⁷ Finally, the principle cannot be isolated from the former element, or the sovereign right of states to use their territory in line with their own policies, or treaty-based obligations, as Ebbesson points out.⁵⁹⁸ But an ecological balance may be difficult to reach, and even more difficult to rely upon when the principles of state responsibility are brought into the picture.

8.2.4 The principle of state responsibility (liability)

8.2.4.1 General information

I will now turn to the last of the principle of interest for this study or the principle of state responsibility. States can be, and are, made responsible under international law if they cause damage to the interests of another state, including to that state's environment. The failure of states to fulfil their duties under the latter part of Rio Principle 2 may activate the principle of state responsibility.⁵⁹⁹ Furthermore, in the absence of a clear treaty provisions stipulating state responsibility (liability) in relation to that particular regime, international principles on state responsibility would be applicable, at the least theoretically to all actions and activities that cause environmental damage.⁶⁰⁰

As far as the scope of this study is concerned, few international cases are available in this field, and the ones that are, usually, though not exclusively, are covering damage, or possible damage only, to the prerequisites for biodiversity, such as water quality and quantity, and land quality as such, rather than declining biodiversity. Some conclusions that are of interest for this study can nevertheless be drawn from them.

But before taking a look at international case law, I will say a word or two about the basics of the principle of state responsibility.

8.2.4.2 Foundation

As previously outlined, *the Chorzów Cases* are usually cited as marking acceptance, as a general rule, of the principle of state responsibil-

⁵⁹⁷ Birnie/Boyle 2002, p. 112. See also Ebbesson 1996, pp. 103-107.

⁵⁹⁸ Ebbesson 1996, pp. 106-107.

⁵⁹⁹ See further, *inter alia*, Sands 2003, pp. 235-246.

⁶⁰⁰ J. Ebbesson, *inter alia*, points out the difficulties in applying the principle of state responsibility to environmental damage, but he does not doubt the customary status of the principle as such. Ebbesson 2000, p. 53.

ity under the international legal system. In the former *the Chorzów Case* (1927) (question on jurisdiction of the Court), the PCIJ stated:

“It is a principle of international law that the breach of an engagement⁶⁰¹ involves an obligation to make reparation in an adequate form. Reparation therefore is the indispensable complement of a failure to apply a convention and there is no necessity for this to be stated in the convention itself.”⁶⁰²

When the merits of the case were finally adjudicated, *cf. the Chorzów Case* (1928), the PCIJ stipulated:

“... the Court observes that it is a principle of international law, and even a general conception of law, that any breach of an engagement involves an obligation to make reparation.”⁶⁰³

As to day, no one international treaty exists that is outlining the principles of state responsibility in any details. In spite of this, this topic has definitely not been neglected by the international community.

The ILC has for decades worked on the issue and Report of the International Law Commission from 2001 sets forth the fundamental principles as well as thorough explanations based primarily upon available international case law and theory. The ILC’s work is titled: *Text of the Draft Articles on Responsibility of States for Internationally Wrongful Act* and is presented in the form of a draft treaty.⁶⁰⁴

8.2.4.3 The Draft Articles

First, the principles are general. Second, they reflect theory and are derived from international case law. Third, they are relevant to inter-

⁶⁰¹ The term *engagement* is here used as to cover international obligation, regardless whether its legal foundations are based upon a treaty or custom. Report of the International Law Commission. Fifty-third session, 23 April – 1 June and 2 July – 10 August 2001. GA Official Records A/56/10. Text of the Draft Articles on Responsibility of States for Internationally Wrongful Act, cited as RILC A/56/10 or the Draft Articles, p. 71. See also document A/56/10/Corr.1.

⁶⁰² *The Chorzów Case* (1927), p. 21.

⁶⁰³ *The Chorzów Case* (1928), p. 29.

⁶⁰⁴ D. D. Caron draws attention to particular problems relating to the fact that ILC’s work is presented as a draft treaty and also wonders whether it is not suitable to count them as falling under Article 38(1)(d) in ICJ Statute. Caron 2002, pp. 857-873. As the bulk of the principles included in the draft are considered to have customary status, this discussion is not considered to be of great importance.

national law affecting the environment as well as generally under the international legal system.⁶⁰⁵

The much debated issue of whether the responsibility should be based upon fault or be objective (strict or absolute), is not reflected in the Draft Articles as such.⁶⁰⁶ Thus, the principles are applicable regardless of the basis of the responsibility. However, of interest for this study is the question, under which conditions a state could be made responsible.

With respect to the first, as stipulated in Article 1 of the Draft Articles, every internationally wrongful act of a state entails the international responsibility of that state. However, two conditions need to be fulfilled: (a) that the wrongful act is attributable to the respective state, and (b) it must constitute a breach of an international obligation of the same state, as Article 2 articulates.

An important issue is the attribution of conduct, whereby the state as such becomes responsible under international law, whether the action in question is carried out by a state organ,⁶⁰⁷ or by a private person or by a non-state entity exercising elements of governmental authority.⁶⁰⁸

However, and probably the most important element in relation to biodiversity damage, and of course environmental damage, is the principle in Article 8, whereby the conduct of a person or group of persons are to be considered an act of a state under international law, if they are in fact acting on the instructions of, or under the direction or control of that state, in carrying out the conduct. In spite of the wording, that is *person or group of persons*, the principle is also applicable to legal persons, such as operators of activities affecting the environment, that are subject to a state's internal legislation and control.⁶⁰⁹ This is due to the fact that there is, or at least should be, a connection – usually some kind of regulating, often official licensing and control – between the state as a governing authority in a given region and the operations that take place within its territory or that are conducted under its control.⁶¹⁰

⁶⁰⁵ See *e.g.* Sands 2003, p. 873.

⁶⁰⁶ See further RILC A/56/10, pp. 43-365.

⁶⁰⁷ *Ibid.* Article 4.

⁶⁰⁸ *Ibid.* Article 5.

⁶⁰⁹ *Ibid.* p. 109.

⁶¹⁰ This is evident from the basics of the *Trail Smelter Arbitration*.

Article 12 outlines the circumstances necessary to constitute a breach of an international obligation. Thus, when an act carried out by a state is not in conformity with what is required of the state by that obligation, regardless of its origin or character, a breach of an international obligation exists. Included are treaty obligations, customary rules and other international principles. Obviously the last category causes problems if the defending state opposes the applicability of an international principle, due to its lack of customary status.

Several circumstances can preclude the wrongfulness of the act *cf.* the principles set forth in chapter V, Articles 20-27, of the Draft Articles. Included are consent, self-defence, countermeasures, *force majeure*, distress, necessity, and compliance with peremptory norms. The ICJ has thus far tended to rely upon a high standard of proof when evaluating whether particular circumstances can preclude the wrongfulness of an act.

There are legal consequences and possible reactions that can be tied to the internationally wrongful act. Article 29 stipulates that the act does not affect the continued duty of the state responsible to perform the obligation that it has breached. However, the responsible state is under an obligation to cease the wrongful act, or to offer appropriate assurance and guarantees of non-repetition, depending on the circumstances, as outlined further in Article 30 of the Draft Articles.

Furthermore, the state responsible for the breach is under an international obligation to make full reparation for the injury caused by the act, *cf.* Article 31. The reparations can be several,

- (1) restitution, or to re-establish the situation which existed before the wrongful act was committed, if possible, *cf.* Article 35;
- (2) compensation, that entails payments, *cf.* Article 36, and
- (3) satisfaction, including acts of acknowledgement of the breach, formal apology or another appropriate modality, as outlined in Article 37.

The draft rules, furthermore, outline several principles on how to operationalise and execute the principles, which in a biodiversity context will not be outlined here.⁶¹¹

8.2.4.4 Acts not prohibited

The ILC has not only worked on the principle of state responsibility. In 2001 the Commission also introduced Draft Articles relating to hazardous activities and transboundary harm.⁶¹² These Draft Articles are titled: *Prevention of Transboundary Harm from Hazardous Activities*. Since the study is only marginally covering the diverse procedural principles of international law relating to the environment, the Draft Articles will only be given minimum space below.⁶¹³ The analysis has one objective, to highlight, first, that international law acknowledges limitations on the permanent sovereignty of states over their natural resources, and second, that this freedom of states is limited by particular principles of international law. These principles are not prohibiting states to conduct activities that can cause significant harm to their territory or to territory of other states, or risk thereof. As the substance of the Draft Articles reflects, however, they do in fact accept that states carry out hazardous activities that could, eventually cause significant transboundary harm of the environment of other states. The emphasis is on the other hand placed on particular cooperation and consultation of states during the preparatory phase, in order to minimise the risk, and the harmful effects that could materialise. The commentary to the Draft Articles particularly knowledge that harm prevention *due diligence* is usually delivering better results than to rely upon the principles of state responsibility.⁶¹⁴

⁶¹¹ See further on state responsibility, e.g. Cassese 2005, pp. 245-262, and Oppenheim's International Law 1996, pp. 499-536. See also coverage of the 2001 Draft Articles in Jóhannsdóttir 2007b, particularly pp. 12-22.

⁶¹² Report of the international Law Commission. Fifty-third session, 23 April – 1 June and 2 July – 10 August 2001. GA Official Records A/56/10. Draft Articles on Prevention of Transboundary Harm from Hazardous Activities, pp. 146-170.

⁶¹³ These include EIAs and risk assessment (Article 7); notification procedures (Article 8); consultation of states relating to preventive measures (Article 9); factors facilitating the balancing of the interests of states (Article 10); exchange of information (Article 12), and involvement of the public (Article 13).

⁶¹⁴ See further: Article 1 of the Draft Articles; and also A/45/10, particularly pp. 148-151.

8.2.4.5 The relevance of the principle?

The critical question in relation to the principle of state responsibility is of course whether, and, if so, how they are usable, when it comes to safeguarding biodiversity and thus promoting ecological sustainability and the 2010 target.

As outlined above, in order to apply the principle on state responsibility a breach of an international obligation needs to be demonstrated by the state seeking to be compensated or otherwise striving to prevent environmental damage. In most cases this has turned out to be difficult, if not impossible. Viewed in the light of the significance of the default, the reason is presumably the soft and balancing character of international obligations belonging to the environmental field and the overriding status of some of the principles of international law and the default law.

Examples of international case law touching upon state responsibility and aspects of pure environmental damage are rare. However, a few cases are available that give certain information. Some of them rely upon particular treaty provisions. But in the background one can trace the preventative obligation of Rio Principle 2.

Pulp Mills Case

In the *Pulp Mills Case*, Uruguay and Argentina argued, *inter alia*, on the potential and actual environmental effects, including biodiversity damage, relating to two pulp mills situated on the River Uruguay, where the states share a border and the watercourse. The states had agreed on a particular joint regime for the management of the river in 1975 (1975 Statute). The 1975 Statute covered, *inter alia*, "obligations of the parties regarding the prevention of pollution and the liability resulting from damage inflicted as a result of pollution".⁶¹⁵

Uruguay had authorised and planned to commission the operation of the two pulp mills. Argentina maintained that Uruguay was in breach of the 1975 Statute. She maintained, *inter alia*, that Uruguay needed Argentina's consent and thus claimed to have the right to veto the commissioning of the pulp mills. The disagreement was brought before the ICJ. Pending the Court's final decision, Argentina asked for provisional measures and, *inter alia*, that the Court ordered the suspension of the authorisation. The Court rejected this. The mills

⁶¹⁵ The *Pulp Mills Case*, para. 4.

had not begun to operate when the case was initiated, and in the Court's view, Argentina had not managed to demonstrate that the construction of the mills would cause irreparable environmental damage.⁶¹⁶

Certain facts were brought to the Court's attention, *e.g.* information from the National Directorate for the Environment of the Uruguayan Government, which had classified the activities "as projects presenting a risk of major negative environmental impact", and that "the process envisaged by the ... projects ... [was] inherently polluting" and that "90 per cent of fish production in the Argentina-Uruguay section of the river (over 4,500 tonnes per year) is located within the areas affected by the mills, which are also a breeding area for the river's migratory fish stocks".⁶¹⁷

Argentina claimed that the commissioning of the two pulp mills would inevitably and significantly affect the river's water quality and cause significant transboundary damage to Argentina. The cause of the damage, it was maintained lay, *inter alia*, in the choice of site, the technology adopted, the proposed methods for treating liquid effluent, solid waste and gas emissions.⁶¹⁸ Furthermore, as Argentina argued, the harmful consequences from the activities "could not simply be made good by means of financial compensation or some other material provision"⁶¹⁹ and by failing to adopt the provisional measures, "the commissioning [of the two mills] before a final judgment is rendered would seriously and irreversibly compromise the conservation of the environment of the River Uruguay and of the areas affected by the river, as well as the rights of Argentina and of the inhabitants of the neighbouring areas under its jurisdiction."⁶²⁰

All of this was rejected by Uruguay, maintaining that Argentina's claim was unfounded and that Uruguay's conduct was in line with the 1975 Statute. Furthermore Uruguay argued that both the highest and the most appropriate international standards of pollution control would be used for the mills, Uruguay had followed the 1975 Statute

⁶¹⁶ *Ibid.* para. 74.

⁶¹⁷ *Ibid.* para. 8.

⁶¹⁸ *Ibid.* para. 15.

⁶¹⁹ *Ibid.* para. 17.

⁶²⁰ *Ibid.*

in good faith, and the regime did not give either party a right of veto in relation to the other's industrial development projects.⁶²¹

Cosmos 954

This case⁶²² concerned a Soviet nuclear-powered satellite, *Cosmos 954* that crashed on Canadian territory. Canadian authorities instigated expensive measures to mitigate the environmental effects, including cleaning up affected areas in order to minimise environmental contamination from the debris. Canada sought compensation from the Soviet Union (USSR) under the Convention on International Liability for Damage Caused by Space Objects⁶²³ and on the basis of the principles of international law. The convention does not include the concept environmental damage in so many words in its definition of damage, *cf.* its Article I, referring instead, *inter alia*, to loss of, or damage to, the property of a state. Canada relied upon this as a basis for their claim, as well as the absolute liability that the convention stipulates, when damage is caused on the surface of the earth, *cf.* Articles II and VII. Without accepting international responsibility under the convention, the USSR nonetheless accepted liability and agreed to pay Canada, in settlement of the issue.⁶²⁴

The Phosphate Case

The *Phosphate Case*⁶²⁵ concerned a dispute between Nauru and Australia on the rehabilitation of certain phosphate lands in the island of Nauru. Australia (and some other states) had governed Nauru on the basis of a Trusteeship Agreement until the state became independent in 1968. Nauru claimed that during the governing period Australia had breached several international obligations, *inter alia*, the obligation to respect the right of the Nauruan people to permanent sovereignty over their natural wealth and resources. Furthermore that Australia was under an international obligation to make the appro-

⁶²¹ *Ibid.* para. 43.

⁶²² Canada, Claim against the USSR for Damage Caused by Soviet Cosmos 954, 23 January 1979, cited as *Cosmos 954*, 18 ILM 899-908 (1979).

⁶²³ 961 UNTS 187.

⁶²⁴ See further Sands 2003, pp. 897-898.

⁶²⁵ *Case Concerning Certain Phosphate Lands in Nauru*, Nauru v. Australia. ICJ Reports (1992), p. 240. Cited as the *Phosphate Case*. The case covers first and foremost the question whether the ICJ had jurisdiction that was affirmatively concluded by the Court.

priate reparation for Nauru's loss.⁶²⁶ During the governing period, Australia had worked phosphate lands (phosphate mining) in Nauru, resulting in vegetation damage and soil erosion. Eventually the vegetation and soil loss led to climate change in the island, making it unsuitable for agriculture due to drought. Although it does not involve transboundary environmental damage, the case is nonetheless interesting. Apart from the fact that it raises issues with regard to principles of state responsibility, it also provides information on environmental damage, including land rehabilitation. The dispute was eventually settled out of court and Australia compensated Nauru for her loss.

The Gabčíkovo-Nagymaros Case

The case concerned the execution of a bilateral treaty from 1977 between Slovakia (originally Czechoslovakia) and Hungary on the Gabčíkovo-Nagymaros Project. Hungary left the project and suspended the 1977 treaty arguing that the execution of the project would eventually cause ecological risk and damage. The ICJ had no difficulties in acknowledging Hungary's concerns for its natural environment that would be effected by the execution of the Gabčíkovo-Nagymaros Project and that constituted an *essential interest* in the terms of Article 33 of the Draft of the International Law Commission.⁶²⁷ However, the Court did not accept Hungary's arguments nor was Hungary's evaluation of necessity deemed valid when the time factor was taken into consideration.⁶²⁸

Also of interest is the fact that Hungary argued,

"[t]hat the previously existing obligation not to cause substantive damage to the territory of another State had, ... evolved into an *erga omnes* obligation of prevention of damage pursuant to the "precautionary principle",⁶²⁹

but in reply, Slovakia argued

⁶²⁶ *Ibid.* para. 5.

⁶²⁷ This is a reference to Article 33 of the ICL rules on state responsibility from 1980, titled: *State of Necessity*. Draft Articles on State Responsibility. Yearbook of the International Law Commission (1980). Vol. II, Part 2. In the 2001 Draft Articles an identical article is Article 25, titled: *Necessity*.

⁶²⁸ See further the *Gabčíkovo-Nagymaros Case*, particularly paras. 13-14, 40, 44, 49-59.

⁶²⁹ *Ibid.* para. 97.

“that none of the intervening developments in environmental law gave rise to norms of *jus cogens* that would override the [1977] Treaty.”⁶³⁰

The ICJ, however, although it did not directly comment on this stated:

“Neither of the Parties contended that new peremptory norms of environmental law had emerged since the conclusion of the 1977 Treaty. ... On the other hand, the Court wishes to point out that newly developed norms of environmental law are relevant for the implementation of the Treaty and that the parties *could*,⁶³¹ by agreement, incorporate them through the application of ... the Treaty.”⁶³²

8.2.4.6 Discussion

From the cases introduced above, I can at the least state that, as in the *Pulp Mills Case*, by relying upon the principles of state responsibility as well as the provincial mechanisms as is possible before the ICJ, the principle’s application is aimed to compensate only *significant* environmental damage *after* the damage has occurred. This, of course, is nothing new. Furthermore, the principle requires a high standard of proof. In the *Pulp Mills Case* the alleged breach of an international obligation was, *inter alia*, tied to the preventive measures that were planned. They were, as stipulated in the case, to the “highest and the most appropriate international standards of pollution control” was to be used for the mills. The obligation under the 1975 Statute was a general preventative obligation. To rely upon the principles of state responsibility does however not prevent environmental damage, and as Argentina argued, financial compensation will not make good the harmful environmental consequences of the activities. The case furthermore illustrates that biological damage is part of the concept of environmental damage.

If, on the other hand, clear treaty provisions outlining the preventative obligation, are not available, then the act in question would be considered legal under international law. Usually, the general preventative principle in the latter part of Rio Principle 2 – the responsibility of states for ensuring that activities to locate within their jurisdiction or under their control do not cause environmental damage to

⁶³⁰ *Ibid.*

⁶³¹ Italics added.

⁶³² *Gabčíkovo-Nagymaros Case*, para. 112.

other states or in areas beyond limits of national jurisdiction – is of little help to biodiversity. Its underlying state v. state transboundary pollution scenario thus only provides false security. The principles of state responsibility will not necessarily be triggered, since no wrongful act can be demonstrated by the state that has suffered. This would be expected in a permissive legal system and under the principle of rule of law.

Furthermore, even though clear cut treaty provisions, outlining the duties, are available, they are of course subject to interpretation as was the case in the *Pulp Mills Case*, where the arguing parties, *inter alia*, disagreed on interpretation of the 1975 Statute.⁶³³ In this respect it is of interest to pay attention to one of the principles of international law relating to the interpretation of treaties, whereby they are to be interpreted in favour of the sovereign rights of states and their sovereignty as such.⁶³⁴

No matter the responsibility in the *Cosmos 954* the case is of interest when the concept of environmental damage is placed in focus. Thus, a clean up operation in order to minimise land contamination can be viewed as part of environmental damage, as well as being supporting biodiversity. The same goes for the land rehabilitation of the damaged lands in Nauru, *cf.* the *Phosphate Case*. These two cases, however, do not reflect disputes relating to international or transboundary damage, the responsibility was not enacted by a state that had suffered due to actions or omissions of one state having negative effects in another state. The former relates to, presumably, technical malfunctions, and the latter, mistakes in international governance.

There are many interesting issues in the *Gabčíkovo-Nagymaros Case*, particularly the one illustrating how difficult it is to argue that new customary rules reflecting precautionary thinking have emerged in international law and become part of the preventative obligation of Rio Principle 2, as Hungary attempted. On the other hand, the burden of proof in demonstrating a state of necessity was perhaps unreasonably high, and did not reflect any environmental thinking. The fact that environmental damage may be triggered by relatively innocent actions, which, as time goes by, they may eventually evolve into significant environmental effects, is ignored. Thus, the concept of

⁶³³ That part of the case is at the time of writing not concluded.

⁶³⁴ See further Brownlie 2008, p. 635.

environmental degradation seems to be unknown to international law affecting the environment.

In contrast to the views of many scholars specialising in international environmental law, public international law does only recognise a customary status for some international principles relating to the environment. A Cassese's view on the issue is interesting. He argues that only some customary rules have been established in the field of international environmental law. First, the general obligation to protect and preserve the marine environment, second, the right of coastal states to conserve and manage resources and to preserve the marine environment and finally, the right of the same states to take measures to preserve marine biological resources, to protect the marine environment from pollution.⁶³⁵ To argue a breach of alleged customary rule in the environmental field and to rely upon state responsibility has thus turned out to be quite difficult.

When it comes to reparation for injury that constitutes biological damage, it may be impossible to re-establish the situation completely, even though the breach is compensated for by means of monetary payments. The reason is, of course, the nature of biodiversity and the necessary prerequisites that need to be present in the environment to ensure its further evolution. Although international case law recognises pure environmental damage, it does not hold many usable examples upon which further conclusions on the content of such damage could be drawn or the threshold of damage set. Finally, it can be concluded that the principles of state responsibility are relevant when it comes to biological damage, but other measures, preventative ones, are likely to deliver better results.

In attempting to provide an answer to the question proposed at the beginning of this sub-section, it would be a methodological failure to argue the irrelevance of the principles of state responsibility. But to conclude that the principles further ecological sustainability or safeguard biodiversity in any practical way would also be to provide a false sense of ecological security. However, their very existence and general acceptance and the fact that they may be turned to in international litigation, undoubtedly provides some preventative effect and should encourage states, to take reasonable preventive measures.

⁶³⁵ Cassese 2005, pp. 488-491.

8.2.5 Some concluding comments

In this section I outlined three important and principles of the default of international law, namely the sovereign right of states to use their natural resources, the preventative obligation of states to prevent transboundary harm, and finally the principle of state responsibility. Although international case law does not have a great deal to say in the environmental field, particularly in the field of international biodiversity law, it can nonetheless be concluded that in the absence of a clear preventative obligation, these three principles provide only a minimum of security for the realisation of ecological sustainability and the 2010 target and are of little support when it comes to safeguarding biological diversity, presently and in the future.

8.3 Further discussions and problematising

At the beginning of the chapter I introduced the proposition that the three principles diminished, rather than support ecological sustainability and the realisation of the 2010 target. Furthermore, in chapter 3 the action-reaction model was introduced. The thrust of the action-reaction relationship lies in how it illustrates in a simple way how the actions and activities of the actors, (the left side of the model), influence or have an effect on natural systems, including ecosystems and their functions, (the right side of the model). Furthermore, the left side can be controlled by regulating the behaviour of states. This is today usually done by agreeing upon preventative duties in international treaties.

However, the right-hand side only reacts passively to the actions and the activities in line with the laws of nature, which cannot be regulated by the left side. The actions and activities which have these effects can be controlled by, *inter aila*, agreeing upon binding treaty obligations. Finally, the reversed arrow, B-A, that carries the information on the environmental situation, is to illustrate the feed-back factor, and the necessity of adapting the left side to the environmental conditions present on the right side.

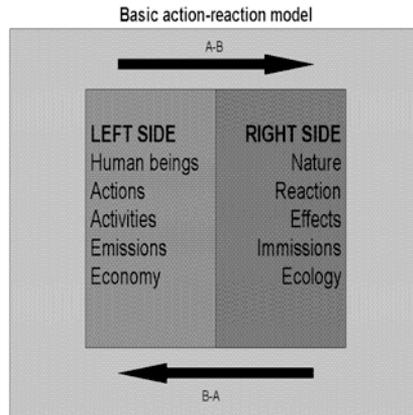


Figure 28

As outlined in the opening chapter of this study, the international community has responded to the situation on the right-hand side by, *inter alia*, agreeing upon the objective of stopping and reversing biodiversity loss at all levels by 2010. Also previously outlined was the fact that rich and relatively stable biodiversity is one of the fundamentals of ecological sustainability and the future of human existence. New treaties that are meant to safeguard and manage biodiversity are therefore fundamental instruments in this respect. I also pointed out in chapter 1, where biodiversity in nature and the HIPPO were placed in focus, that the current state of biodiversity is a reaction to several interactive anthropogenic impacts. Also in the same chapter I found out that the core problem, as far as the deteriorating state of biodiversity is concerned, is the continuing extinction of species, and the fact that the extinction rate is accelerating. Some natural scientists argue that the rate is around 100 times faster than the natural average.

I will now combine these issues and test the three principles. My hypothesis is that the three principles are diminishing rather than supporting ecological sustainability and the realisation of the 2010 target.

The principle of the sovereign right of states to utilise their own natural resources is typically “right-based” but not “effective-based”. The main emphasis is on the *right* of the state to utilise the resources in its own interests. That would be the left side of figure 28. As a rule, states can freely exercise this right when making their environmental

and developmental interests operational at the national level. Moreover, under the principle states can legally (rule of law) under international law misuse or even destroy their own biodiversity, as long as they do not activate their international responsibility by failing to apply the general preventative principle included in the obligation to prevent environmental damage.

When the right-based principle is now tied to the principle of the general obligation of states to prevent environmental damage, which is also situated on the left side of the model, the principle can be exercised freely since the obligation to prevent environmental damage does not have any clear or inherent environmental or ecological limits. In other words, the obligation does not have any direct ties to the right side of the model. This is, *inter alia*, due to a general lack of quality standards in international law and of generally accepted methods of measure ecological or possible ecological damage. When time is taken into account, states can legally, under the international legal system, undertake actions and operations within their jurisdiction, which may have or *eventually* result in significant and adverse ecological effects. The present state of biodiversity is most likely a consequence of actions and activities that are legal, since states have the right to act as they do.

Moreover, it has turned out to be difficult to demonstrate and bring forward arguments that will convince the ICJ that particular actions or activities will *eventually* result in environmental damage, including significant biological damage. This is partly due to the onus that has been placed upon states to come up with strong evidence when they argue for provisional measures in order to prevent environmental damage, and also partly because the ICJ does not seemingly recognise the core of the precautionary principle or the concept of environmental degradation. Again time is a factor working against the realisation of ecological sustainability and the 2010 target.

To conclude, when the model above is theorised, the principles that have been the prime subject of this chapter become somewhat dislocated from the right side of the model. Thus they do not support ecological sustainability and the 2010 target. In my view they are rather counteracting the realisation. Finally, in my view these principles are the ruling principles of the default of the international legal

system affecting biodiversity in nature as far as the scope of this study is concerned.

8.4 Concluding remarks

The objective of this chapter was to facilitate the understanding of three principles of international law that have, and are, shaping the possibilities for reaching and maintaining ecological sustainability and the 2010 target. The very same principles are also principles of the default of international law. In the absence of a clear preventative obligation, as well as criteria to establish how the significance of the consequences can be legally demonstrated, states can to the largest extent utilise their natural resources without limitations.

The above analysis also demonstrated that if states are considered to have breached an international obligation, that wrongful act may have legal consequences and trigger the principle of state responsibility. The measure is however of little use for ecological sustainability or biodiversity, since it is only applies when environmental damage has occurred, and monetary payments can only partially restore the former natural situation.

When the principles were linked to the basic action-reaction model, I concluded that they did not have any direct tie to the right-hand side of the model, and were thus dislocated from ecological sustainability. Consequently, these principles are in my view not supportive of ecological sustainability nor do they serve as to prevent biodiversity losses.

9. International biodiversity law

9.1 Introduction

“We live in and by the law. It makes us what we are: citizens and employees and doctors and spouses and people who own things. ... We are subjects of law’s empire, liegemen to its methods and ideals, bound in spirit while we debate what we must therefore do.

What sense does this make? How can the law command when the law books are silent or unclear or ambiguous?”⁶³⁶

This chapter aims to facilitate the understanding of international biodiversity regulation and its legal prerequisites. As viewed by this study, international biodiversity law as such consists of loosely connected treaties that make up two international control systems.⁶³⁷ The chapter’s main purpose is thus to provide particular fundamental information on these systems – sometimes referred to as the biodiversity cluster⁶³⁸ – that is necessary to understand the significance of the default. The analysis is partially descriptive and partially problem-orientated.

As I outlined in chapter 1, the concept of biodiversity comprises more than species and stocks of species, since it also embraces the *variety* of species, within species (genetic diversity), and of ecosystems. Thus, to place the main emphasis on the regulating of particular species will only ever constitute a partial response to the rationale behind the concept.

Chapter 1 outlined the principal causes for biodiversity’s deterioration. They are several and interacting, as the HIPPO reflect. Presently,

⁶³⁶ Dworkin 1998, p. vii.

⁶³⁷ See for comparison, K. Kokko who refers to biodiversity law as to being including new terms many of which are part of the CBD, the birds’ directive, the habitat directive, as well as being presenting the major Finnish nature conservation acts. The basic term of biodiversity law is the three-layered concept of biological diversity. See further: Kokko 2004, p. 157 *et seq.*

⁶³⁸ The term *biodiversity cluster* does not contain the biodiversity law that would be considered part of the law of the sea. However, oceanic biodiversity will be included in the analysis below.

the biggest threats to land-based biodiversity are thought to relate to habitat fragmentation, and increasingly, to climate change. Oceanic biodiversity has long been exposed to over-harvesting patterns – fish stocks and particular marine mammals – but is gradually also being threatened by pollution, climate change and rising temperatures.

Also tackled in chapter 1 was the problem of the size of the human population. Latest estimates indicate that it is not expected to stabilise until the latter part of this century, and estimated to reach 9.3 billion by the year 2050. If this forecast becomes reality, and business goes on as usual, it is not unreasonable to expect increasing environmental pressure and the carrying capacity of the world will almost certainly be even more dangerously threatened.

In chapter 8, I draw attention to the fact that in spite of Rio Principle 2, states can seemingly freely and legally under international law destroy their own biodiversity. The same applies when it comes to the necessary conditions for biodiversity's survival, as long as the consequences from there do not transcend states borders or otherwise significantly damage the interests of other states.

Thus I will argue below that particular human actions, utilisation of particular stocks and species, habitat reduction, and land-use planning in general, are still, as a rule, being carried out by states and deemed legal under the international legal system without due care and attention being given to ecological limits in line with the core of ecological sustainability. Furthermore, that this does not support the realisation of the 2010 target. Theorised from a legal point of view, the reason partially lies in how international biodiversity law is structured and in the soft character of the international commitments in this field of international law. Further, that international biodiversity law is in a way a hostage to an old paradigm that has not adapted to changing reality or to the increasing pressure of biodiversity and its prerequisites. Sufficient to point out is Article 3 of the CBD stipulating:

“States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”

When international biodiversity regulation becomes the central focus, the above-mentioned issues necessitate an understanding of where biodiversity is located, of jurisdictions of states, and of the basic prerequisites for the development of international biodiversity law. Consequently, section 9.2 gives an attention to the location of biodiversity and the corresponding international control. Section 9.3 provides a particular approach to international biodiversity law where the basic global regimes relating to biodiversity will be approached as a loosely connected international control systems. Since most if not all of the regimes have already been described and commented on by many researchers, I will use some examples to underpin the points that will be made.⁶³⁹ The main emphasis will be placed on two international control systems, the UNCLOS and the CBD. Thereafter, in section 9.4, I will further problematise the findings of sections 9.2-9.3, by linking them to the study's overall objectives. Finally, some concluding remarks will be set forth in section 9.5.

9.2 Location – land or sea sets the fundamentals

9.2.1 General information

Biodiversity and its components, basically species and ecosystems, are habitually regulated and controlled as either being land-based (often including the territorial waters and the EEZ) or sea-based. Some international regimes are in the gray zone, so to speak, since

⁶³⁹ See e.g. Lyster 1985 where international biodiversity law until 1985 is discussed; several articles on the different aspects of the CBD in *Biodiversity and International Law*, Simone, B. ed., IOS Press, Amsterdam 1992, and de Klemm, C, and Shine, C. in *Biological Diversity Conservation and the Law. Legal Mechanisms for Conserving Species and Ecosystems*, IUCN Environmental Policy and Law Paper No. 29, IUCN 1993; biodiversity law, *inter alia*, in relation to human rights in *Biodiversity & Human Rights. The International Rules for the Protection of Biodiversity*, Louka, E., Transnational Publishers 2002; a collection of articles in *Biodiversity, Conservation, Law + Livelihoods. Bridging the North-South Divide*, Jeffery, M. I., Firestone, J. and Bubna-Litic, K. eds. Cambridge University Press 2008; *Protection of Global Biodiversity. Converging Strategies*, Guruswamy L. D. and McNeely, J. A. eds. Durham and London 1998, and also a comprehensive coverage in *The Law of Biodiversity and Ecosystem Management*, by Nagle, J. C. and Ruhl, J. B. Foundation Press, New York, 2002. Finally, several accessible overviews are also available, see *inter alia*, Sands 2003, pp. 499-617; Louka 2006, pp. 244-342, and in Churchill/Lowe 1999, *inter alia*, pp. 279-321.

they cover both land- and sea-based species, such as the CITES and the Bonn Convention. On the other hand, these regimes do not have any effects either on the particular jurisdictions or on the rights and duties established by the UNCLOS.⁶⁴⁰

The dichotomy, as a general rule, is nonetheless present in international biodiversity regulation. For example, Article 22 of the CBD particularly sets out the general relationship for these two regimes. Article 22 stipulates that the CBD is not to have any effects on rights and duties under the law of the sea, or on any other existing international regime unless the latter should cause a serious damage or threat to biodiversity, *cf.* Article 22(1).⁶⁴¹

On the other hand, the CBD lacks all information on how the rule is to be relied upon when evaluating whether the application of regimes that came into force prior to December 29, 1993⁶⁴² is causing serious damage.⁶⁴³ It seems likely, however, that only in the event of foreseeable, serious damage or threat to biodiversity, could a state argue that paragraph 1 would be applicable.

However, the very existence of this principle should, at least theoretically, have an influence on how new regimes are being structured, thus contributing to more coherent instruments with regard to the use of terms and the basic preventative and management principles.

The next two sub-sections provide some of the ruling fundamentals in the international regulation of biodiversity as viewed through two basic controlling systems.

9.2.2 Land-based biodiversity

Land-based biodiversity falls exclusively under the control of sovereign states. This right is, of course, based upon one of the fundamental principles of international law, namely that states have an exclusive right to utilise and control biodiversity that is located on their territory or otherwise under their control.⁶⁴⁴ Furthermore, land-based

⁶⁴⁰ See further CITES' Article XIV(6) on the connection to the law of the sea, and also Article XII of the Bonn Convention.

⁶⁴¹ See further on *lex posterior, lex specialis* and Article 60 of the Vienna Convention, in international environmental law conflicts: Wolfrum/Matz 2003, pp. 151-159, and their conclusion that Article 60 provides only marginal assistance when conflicts of treaties in this field of international law are solved, since it all comes down to interpretation.

⁶⁴² The date when the CBD entered into force.

⁶⁴³ Jóhannsdóttir 2007a, pp. 283-284.

⁶⁴⁴ See further the Rio Declaration's principle 2.

biodiversity is as a rule regulated by national legislation and is enforced by national authorities. If, however, a state is not land-locked, then the fundamental principles of the UNCLOS come into play. The same principle applies to biodiversity located within territorial seas,⁶⁴⁵ the EEZ⁶⁴⁶ and the continental shelf.⁶⁴⁷ All come exclusively under the responsibility and control of the respective coastal state. The conservation duties and the right to utilisation are subject to the regulation of the respective states taking into account the necessary cooperation with neighbouring coastal states, or other interested states, when biological resources travel between jurisdictions. The cooperation of states is also in line with international regulation, such as the relevant principles of the UNCLOS, the CBD, CITES, the Ramsar Convention, Bonn Convention, etc., or decisions taken by international or regional organisations.⁶⁴⁸

9.2.3 Sea-based biodiversity

On the other hand the sea area beyond the EEZ, or the high seas, is traditionally regarded as *res communis* or an area where all states have utilisation rights, regardless of whether they are coastal states or not.⁶⁴⁹ Current utilisation⁶⁵⁰ – basically fishing and hunting of particular marine mammals – is thus in principle open to all states, however, within defined constraints.⁶⁵¹ Other utilisation of the high seas is possible, such as the utilisation of plants and micro-organisms. Presently, however, this form of utilisation is not considered economically feasible.⁶⁵² The conservation responsibility however, rests upon all states.⁶⁵³ The flag state bears the prime controlling duties, basically

⁶⁴⁵ UNCLOS, Article 2.

⁶⁴⁶ *Ibid.* Articles 55-56.

⁶⁴⁷ *Ibid.* Article 77.

⁶⁴⁸ For example, permissible whaling, and sometimes fishing quotas, are decided by international and regional organizations or concluded by particular agreements concluded by the states that habitually utilise particular stocks and species.

⁶⁴⁹ UNCLOS, Article 87.

⁶⁵⁰ See also Bonney 2006, pp. 44-46.

⁶⁵¹ See further UNCLOS' Part VII on the High Seas, particularly articles 86-87, 116, 118-120; *cf.* Article 65; the Straddling Fish Stocks Agreement, particularly Article 3, and 5-6; and finally the International Convention for the Regulation of Whaling from 1946, 161 UNTS 72, cited as the Whaling Convention, applicable to "all waters", Article 1(2).

⁶⁵² See further on these issues Bonney 2006, pp. 44-46.

⁶⁵³ UNCLOS, Articles 116-117, and the Straddling Fish Stocks Agreement, Articles 5-7.

the legislative and enforcement duties,⁶⁵⁴ and sometimes the conservation and management measures are decided upon by international or regional bodies.⁶⁵⁵

In the Area, which is the sea-bed and ocean floor and its subsoil beyond the limits of states' jurisdiction,⁶⁵⁶ in principle the area beyond the outer limits of the continental shelf, no state has any sovereign rights.⁶⁵⁷ The conservation of the Area and the utilisation of minerals therein are subject to a particular legal framework provided by Part XI of UNCLOS⁶⁵⁸ where the Sea Bed Authority⁶⁵⁹ is the active controlling body.⁶⁶⁰ Based upon the nationality of the entities engaging in mining activities in the Area, parties to the UNCLOS bear the responsibility of complying with the regulatory framework provided by Part XI.⁶⁶¹

The Area and its mineral resources have been declared part of the *common heritage of mankind*,⁶⁶² thus excluding other resources from the notion.⁶⁶³ Part XI does not hold any particular provisions relating to biological resources situated within the Area, nor does it regulate their legal status. These would basically be sedentary species, plants, small animals and micro-organisms. They are therefore not part of the common heritage of mankind concept⁶⁶⁴ and thus subject to the general rules of international law. And since utilisation is not prohibited, all states have a right to utilise the Area in this respect. S. A. Bonney has however, with convincing reasoning, suggested that the

⁶⁵⁴ UNCLOS, Articles 91-92 and 94, Article IX of the Whaling Convention and the Straddling Fish Stocks Agreement, Articles 118-119.

⁶⁵⁵ See further on these issues: *inter alia*, the UNCLOS, Articles 91-92, 94, and 116-119, the Straddling Fish Stocks Agreement, Articles 5-7 and 118-119, and the Whaling Convention, in particular its Articles I(2), V, and IX.

⁶⁵⁶ UNCLOS, Article 1(1)(1).

⁶⁵⁷ *Ibid.* Article 137.

⁶⁵⁸ See also: Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, 33 ILM 1309 (1994), that does not alter the basic principles relating to the utilisation of the Area, but rather facilitates decision-making and safeguards the interest of the states that had begun mining before the UNCLOS entered into force. See further on this issue: Churchill/Lowe, pp. 236-238.

⁶⁵⁹ UNCLOS, Article 137(2).

⁶⁶⁰ *Ibid.*

⁶⁶¹ *Ibid.* Article 139.

⁶⁶² *Ibid.* Article 136. See also coverage of the basic principles and organs of the Area provided by Churchill/Lowe 1999, pp. 238-248.

⁶⁶³ UNCLOS Article 136, *cf.* its Article 133.

⁶⁶⁴ For an overview of the concept and its distributive function, see *e.g.* Churchill/Lowe 1999, pp. 238-239, and 252-253.

conservation and utilisation of biological resources should be subject to the same rules as minerals.⁶⁶⁵ This would be an optimal legal situation. In my view, however, it lacks the necessary legal foundation if one sets the principles of the default of international law into perspective, as well as the ancient principle of the freedom of the high seas. All in all, the conservation and utilisation of biological resources situated in the Area is subject to the respective flag state's regulation, if any. Otherwise, they are only subject to the principles of the default of international law.

The high seas have for centuries been regarded as common property – *res communis* – and their biological resources open for utilisation by states and by no state exclusively. For a long period, regulation, or rather the lack thereof, was based upon the notion that these resources were inexhaustible, a notion which has turned out to be false and dangerous to the future of sea-based biodiversity. In this respect it is of interest to view official statistics, in this case published by FAO. World fisheries (marine) have been stable for some years, around 85 million tonnes per year, but have grown considerably from 1950, when the total was 20 million tonnes.⁶⁶⁶ On the overall state of oceanic fish stocks the same source reports that

“Over the past 10 – 15 years, the proportion of overexploited and depleted stocks has remained unchanged, after showing a marked increase during the 1970s and 1980s. It is estimated that in 2005, as in recent years, around one-quarter of the stock groups monitored by FAO were underexploited or moderately exploited and could perhaps produce more, whereas about half of the stocks were fully exploited and therefore producing catches that were at, or close to, their maximum sustainable limits, with no room for further expansions. The remaining stocks were either over exploited, depleted or recovering from depletion and thus were yielding less than their maximum potential owing to excess fishing pressure. The situation seems more serious for certain fishery resources that are exploited solely or partially in the high seas and, in particular, for straddling stocks and for highly migratory oceanic sharks. This confirms earlier observations that the maximum wild capture fishery potential from the world's oceans has probably been reached and reinforces the calls for more cautious and effective fisheries management to rebuild depleted stocks and prevent the decline of those being exploited at or close to their maximum potential.”⁶⁶⁷

⁶⁶⁵ See further Bonney 2006, pp. 43-91.

⁶⁶⁶ The State of World Fisheries and Aquaculture 2006, particularly p. 3, table 1, and figure 3, p. 6.

⁶⁶⁷ *Ibid.* p. 7.

The legitimisation of new jurisdictions under the UNCLOS and recent high seas regulation under the Straddling Fish Stocks Agreement have as yet only partially managed to change this situation. However, direct utilisation of components of biodiversity has been channelled into particular fields of co-operation, and preventive duties have been agreed upon as well as conservation and management schemes.⁶⁶⁸

9.2.3.1 Bering Fur Seal Arbitration (1893)

The fundamental conservation and management principles, including how the enforcement of sea-based regulation should be conducted, date back to the nineteenth century when the environmental circumstances were fundamentally different, as was the demand for sea based biological resources. This brings me to the *Bering Fur Seal Arbitration*. The findings of the arbitrators in this case did indeed shape the development and application of fisheries laws – including the utilisation of marine mammals – basically until UNCLOS and even beyond. At the core of the dispute was a disagreement between the US and Great Britain relating to the utilisation of fur seals. One of the questions addressed to the arbitrators was whether the US had the right “of protection or property in the fur seals”⁶⁶⁹ when the species was situated outside their territorial waters (at that time the territorial sea limit was three miles and the concept of EEZ had not been established). In other words, the problem concerned the question of the possible extraterritorial application of US conservation law.

Even though the US regarded itself as a trustee of the fur seal stock and based their arguments on established common law and civil law practice as well as referring to the common interest of mankind, it failed in its attempt to convince the panel that the state had a right to protect fur seals when they were situated outside US jurisdiction. The arbitrators went further. They responded to Great Britain’s recommendation that particular conservation measures, which, in fact were to lay the foundation for the development of all sea-based utilisation of biological resources, would be described. Among them were classical management measures, such as the establishment of prohibited zones, closed seasons, fishing gear, licensing systems, catch records,

⁶⁶⁸ See further sections 9.3.4.1- 9.3.4.2.

⁶⁶⁹ Article 1 of a Treaty between Great Britain and the United States for Submitting to Arbitration the Questions Relating to the Seal Fisheries in the Bering Sea, Washington February 29, 1892. 176 CTS 447, 8 IPE 3874.

and exchange of data. The blueprint was the North Sea Fisheries Convention of 1882. The panel also recommended that the states involved should rely upon their national legal systems in implementing the conservation measures as well as for their enforcement.

9.2.4 Discussion

Although the control systems described are fundamentally different, both rely upon national measures for their successful implementation. The land-based one, founded on the principle of the exclusive right to regulate, control and utilise, and the other on freedom and equal right to utilise and international and regional co-operation in the utilisation of often shared natural resources. Thus, if national legislation is absent or otherwise fails to cover these issues, the basic principle would be that utilisation of biodiversity and its components, is allowed and accepted by international law. Moreover, the basic principles derived from the *Bering Fur Seal Arbitration* laid a foundation that is still in place today. The arbitrators were clear on the issue that one state could not legally, under international law, apply their national conservation legislation – an extraterritorial application of law – outside their own jurisdiction.⁶⁷⁰

I thus conclude that the general controlling system for biodiversity is too fragmented to be able to support ecological sustainability and the 2010 target. The international response has been to increase treaty making in this respect in order to outline further preventative measures that, eventually, need to be implemented and made operational through national legal systems and national enforcement mechanisms.

Figure 29 metaphorically underlines the location of land- and sea-based biodiversity, as well as their approximate portions. The figure also underscores the fact that each coastal state's sovereign rights ex-

⁶⁷⁰ See also the decision of the GATT panel in *Restrictions on Imports of Tuna*. Report of the Panel. (DS29/R), 16 June 1994. ILM 839 (1994), cited as the *Tuna-Dolphin II*, that does not alter this fundamental principle as such but the Panel stated that Article XX of the GATT had been construed in such a way as not to make a distinction on the basis of whether the natural resource in question, had been caught within or outside the jurisdiction of the party applying trade restrictions, and thus accepting the extra-territorial scope of Article XX *per se*. On the other hand, that legal fact did not allow the state to regulate the conduct of any nationals other than their own. *Ibid.* paras. 5.11-5.41.

tend to the sea area, the EEZ (the overlapping area) in line with the basic principles of the UNCLOS.

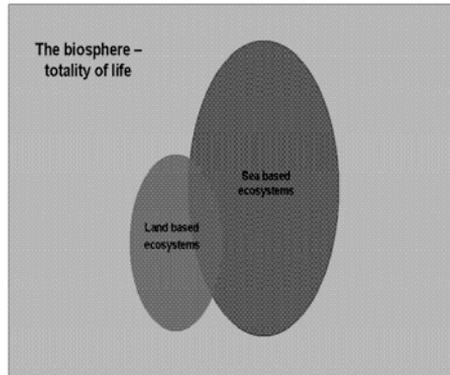


Figure 29

9.3 International control systems

9.3.1 Introduction

As concluded in chapter 8, the international reaction to the adequateness of the basic principles of international law to safeguard biodiversity has been to increase the emphasis on several kinds of preventative obligations. Thus growing concerns for biodiversity and its future have not been excluded from the increasing codification of international law affecting the environment. The international community acknowledges that the deteriorating state of biodiversity is an international concern and has given biodiversity increasing attention, which is *inter alia*, reflected in the CBD, particularly in its preamble where the parties affirm “that the conservation of biological diversity is a common concern of humankind”.

The legal effects of the statement are on the other hand negligible, since it only represents an aspiration. All the same it does reflect valid international concerns and a value judgment.⁶⁷¹ From a policy point of view, the passage indicates an acceptance of the vulnerability of biodiversity’s future, something that cannot be regarded as a private

⁶⁷¹ Jóhannsdóttir 2007a, p. 278.

matter for individual states to decide upon. At the same time it is lacking in any sense of an international obligation which would serve to safeguard biodiversity presently and in the future. Safeguarding biodiversity as such should however be an issue that no state should be neglecting to manage and conserve.

The term *conservation* is sometimes causing problems. I view the term as a collective term which includes the various management measures and methods that states rely upon for the control and sustainable using of biodiversity. Some of these measures reflect components of the precautionary approach. On the other hand, it is difficult to legally underpin a accepted duty, or a customary rule, when it comes to states' responsibilities in the conservation of biodiversity, at least this is difficult on the basis of the CBD. The main reason lies in the vagueness and in the open character of individual provisions of the treaty.⁶⁷² Some even go so far as arguing that the CBD is lacking all binding obligations as well as being supporting the sovereign right of states over their biological resources.⁶⁷³

As time has gone by, international biodiversity law has developed. This has partially been due to the abilities of the various species to travel from one place to another,⁶⁷⁴ or to their being deemed to be an irreplaceable part of local or regional natural systems,⁶⁷⁵ or to their habitats being seen as belonging to the natural heritage of the world.⁶⁷⁶ In this respect, international biodiversity law has entered a new phase where ecosystems, their functions, interrelationships and interdependencies are acknowledged and given attention.⁶⁷⁷ There is after all a natural and trans-boundary ecological flow requiring conservation, a flow that crosses all state borders and jurisdictions. How biodiversity is used in one state or in areas beyond state jurisdictions can have an effect on the global environment, and ecological effects can of course be local, regional or global, as well as transcending all artificial borders.

⁶⁷² See further: *ibid.* pp. 269-289.

⁶⁷³ Le Prestre 2002, p. 8.

⁶⁷⁴ Cf. the preamble of the Ramsar Convention regarding migratory birds.

⁶⁷⁵ See CITES, preamble.

⁶⁷⁶ Cf. the preamble of the World Heritage Convention, which states "that deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world"

⁶⁷⁷ Cf. the CBD and the Straddling Fish Stocks Agreement both acknowledging the importance of ecosystems.

The figure below, figure 30, is to illustrate how biodiversity is affected by various influences on the one hand, and on the other, how ecological effects stem from biodiversity as such. Thus, the oblong form in the middle represents any definable ecosystem and its components. The many As represent the ecological effects stemming from ecosystems. B is to illustrate the effects of pollution on ecosystems including its diminishment of their quality and quantity. C is used to illustrate that climate change and its negative ecological effects. D reflects the growing pressure on habitats and ecosystems due to the size of the human population. E represents direct utilisation of individual stocks and species, and F stands for diminishing natural habitats and their fragmentation.⁶⁷⁸ Finally, H and G indicate quality and quantity standards.⁶⁷⁹

Viewed as a whole, the model would be on the right side of the basic action-reaction model, since ecosystems and their components only react to human conducts and activities. Since the two controlling systems outlined in section 9.2 are to a large extent right and duty oriented, they would belong to the left side of the action-reaction model.

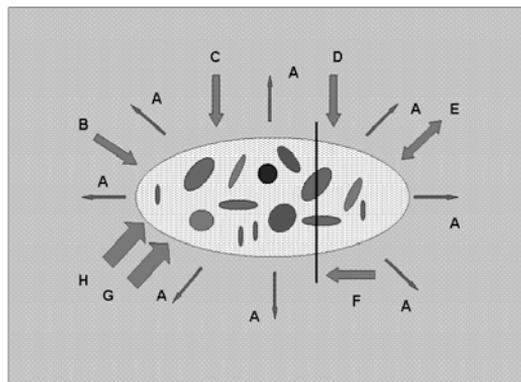


Figure 30

⁶⁷⁸ See further chapter 1.

⁶⁷⁹ See further on these standards chapter 7 above.

9.3.2 Some early instruments

International concerns for the future of biodiversity, particularly concerns for particular habitats and species with high economic value, are not new. For example, Nagel and Ruhl report that in the year 1781 France and Basel concluded an agreement on the conservation of forests and game birds in their border areas.⁶⁸⁰ Several international agreements were concluded in the 19th and early 20th centuries relating to the issue, *e.g.* the regional fisheries management agreement between France and Great Britain in 1867,⁶⁸¹ and an agreement between the United States of America (US) and Great Britain in 1891 on the utilisation of fur seals.⁶⁸²

The first international convention on birds, Convention for the Protection of Birds Useful to Agriculture,⁶⁸³ was concluded in 1902. The Convention focused on some 150 bird species useful for agriculture, by regulating their killing, capturing and sale.⁶⁸⁴ The Convention was replaced in 1950 by the International Convention for the Protection of Birds⁶⁸⁵ due to its predecessor's regulatory shortcomings and the lack of interest among its signatories in fulfilling their obligations.⁶⁸⁶ This convention is still in force and has, *inter alia*, influenced the European legal landscape through its measures for the protection of birds, primarily through the birds' directive. The convention's global influence, however, can be considered negligible.⁶⁸⁷

A milestone regional convention, the Western Hemisphere Convention, was concluded in 1940, and is applicable to states of the Americas. Under the regime the parties are, *inter alia*, to protect defined areas, *i.e.* national parks, reserves and monument (habitats) in order to reach environmental objectives, and to regulate international trade in non-migratory and migratory species.⁶⁸⁸ Due to richness of

⁶⁸⁰ Nagel/Ruhl 2002, p. 870.

⁶⁸¹ Convention between France and Great Britain Relative to Fisheries (1867). 21 IPE 1.

⁶⁸² Agreement between the Government of the United States of America and the Government of Her Britannic Majesty for a Modus Vivendi in relation to Fur Seal Fisheries in the Bering Sea (1891). 8 IPE 3655.

⁶⁸³ 190 CTS 344.

⁶⁸⁴ Cf. Article II, III, V and Annex.

⁶⁸⁵ 638 UNTS 185.

⁶⁸⁶ See further on the 1902 convention and reasons for its failure, Lyster 1985, pp. 63-65.

⁶⁸⁷ Cf. Sands 2003, p. 601.

⁶⁸⁸ See further the Convention's Article II, III VII and *passim*.

the biodiversity and the global importance of the equatorial region of South America, the Western Hemisphere Convention played a proactive role in the conservation of the region. In 1985, S. Lyster concluded that the convention was, at the time of its conclusion, “well ahead of its time in terms of the concepts it exposes”⁶⁸⁹ and influential, as a regulatory instrument. Nevertheless, the Convention failed to deliver enhanced nature conservation, basically due to the inherent lack of the necessary regulatory framework for its effective implementation.⁶⁹⁰ It turned out to be a *sleeping treaty*, as Lyster puts it.⁶⁹¹

Due to the straddling and migratory patterns of sea-based fish stocks,⁶⁹² and the fact that many fish stocks are shared between two or more coastal states,⁶⁹³ international and regional cooperation of states has played an important role in managing these natural resources.⁶⁹⁴ Fishing activities have therefore been regulated on a regional basis in one way or another. One of the earliest treaties in this respect was the North Sea Fisheries Convention (1882), which provided the basic management principle of that time and made it applicable to fishing in the North Sea area. The convention turned out to be quite influential since the conclusion of the *Bering Fur Seal Arbitration* more or less implemented the convention’s basic principles. However, the decision’s outcome has had a decisive influence on the development on all utilisation of sea based-fish stocks and mammals until present days.

⁶⁸⁹ Lyster 1985, p. 97.

⁶⁹⁰ *Ibid.* pp. 97-98.

⁶⁹¹ *Ibid.* p. 111.

⁶⁹² Cf. the framework provided for in UNCLOS’ Article 64 and the Straddling Fish Stocks Agreement (1995).

⁶⁹³ UNCLOS Article 63(1) where a duty to co-ordinate conservation is stipulated. Interested states usually negotiate TACs (total allowable catch) for the target stocks. One such forum is the Iceland-Norway Fisheries Commission. See further on the management of shared stocks: Churchill/Lowe 1999, pp. 294-296.

⁶⁹⁴ There are currently several regional bodies engaged in managing high seas fisheries such as the Northwest Atlantic Fisheries Organization (NAFO) (1978), North-East Atlantic Fisheries Commission (NEAFC) (1980), the General Fisheries Council for the Mediterranean (1949), Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) (1980), etc. See further *e.g.* Churchill/Lowe 1999, pp. 296-305.

9.3.3 More recent instruments

9.3.3.1 Recent treaties

International legislating in the field of biodiversity has continued. Regimes, international as well as regional, protect or set out conservation and management schemes relating to individual species. These include such milestones as the International Convention for the Protection for Birds (1950), the International Plant Protection Convention (1951), the Convention for the Conservation of Salmon in the North Atlantic Ocean (1982),⁶⁹⁵ and the International Tropical Timber Agreement (1983).⁶⁹⁶ Habitats and ecosystems have been served by treaties such as the CRAMRA. Mixed treaties include the Western Hemisphere Convention (1940), the Convention on the Conservation of European Wildlife and Natural Habitats (1979),⁶⁹⁷ the ASEAN Agreement on the Conservation of Nature and Natural Resources (1985).⁶⁹⁸ Moreover, a treaty on transboundary movements of LMOs, such as the Cartagena Protocol (2000) has been accepted, and a treaty providing a framework for the protection of farmers' rights in relation to genetic resources, *cf.* the International Seed Treaty (2001).

9.3.3.2 Global treaties

There exist a small number of international treaties, most of which have been globally accepted, which have had decisive effects on the development of international biodiversity law. They have also provided the basic management schemes and fundamental principles and can thus they be viewed as forming international control systems for biodiversity. Below, I will be mainly, although not exclusively, rely upon examples from these regimes.

These regimes are:

- i) International Convention for the Regulation of Whaling (Whaling Convention) from 1946;
- ii) Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention) from 1971;

⁶⁹⁵ Cited as the Reykjavik Convention. OJ L 378 31.12.1982, p. 25.

⁶⁹⁶ 33 ILM 1014 (1994).

⁶⁹⁷ 1284 UNTS 209. Known as the Bern Convention.

⁶⁹⁸ 15 EPL 64 (1985). Usually cited as the ASEAN Convention.

- iii) Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) from 1973;
- iv) Convention on the Conservation on Migratory Species of Wild Animals (Bonn Convention) from 1979;
- v) United Nations Convention on the Law of the Sea (UNCLOS) from 1982;
- vi) Convention on Biological Diversity (CBD) from 1992; and
- vii) Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of 10 December 1982, Relating to the Conservation and management of Straddling Fish Stocks and Highly Migratory Fish Stocks (Straddling Fish Stocks Agreement) from 1995.

9.3.4 Further on international control systems

I will now theorise the two basic control systems for biodiversity and particularly the prerequisites and legal preconditions for conserving biodiversity. The main problem that I will be theorising is whether they are actually supporting ecological sustainability and the 2010 target.

9.3.4.1 Law of the sea as a control system

Several regimes belong to the law of the sea.⁶⁹⁹ However, the UNCLOS as such provides a particular fundamental regulatory frame, or international control system, that has been globally accepted. Other regimes relating to the sea are in one way or another curved into, or adjusted to this system. On the basis of weak sustainable development with marginal future-generational orientation,⁷⁰⁰ UNCLOS sets out a comprehensive legal order for each jurisdiction belt or the areas that it covers. This includes the territorial waters, the EEZ, the conti-

⁶⁹⁹ See *e.g.* the Straddling Fish Stocks Agreement, the Whaling Convention, and *e.g.* the Reykjavík Convention.

⁷⁰⁰ UNCLOS, preamble, where the states parties recognize “the desirability of establishing through this Convention, with due regard for the sovereignty of all States, a legal order for the seas and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilisation of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment”. Furthermore, the state parties bear in mind “that the achievement of these goals will contribute to the realization of a just and equitable international economic order which takes into account the interests and needs of mankind as a whole and, in particular, the special interests and needs of developing countries, whether coastal or land-locked”.

mental shelf, the high seas and the Area – that the UNCLOS defines in some details.⁷⁰¹ Besides providing a duty-oriented framework to prevent sea pollution from all sources,⁷⁰² the UNCLOS relies upon the standard of *optimum utilisation* of the living resources as a general standard. It applies to the utilisation of all living resources within the EEZ.⁷⁰³

UNCLOS relies upon the term *living resource* and also, in some instances, a form of ecological approach is applied. That is when the effects on associated species and species that depend upon harvested species are to be taken into consideration in decision-making.⁷⁰⁴ With few clear exceptions, UNCLOS' principles first and foremost cover fish stocks. The basic means for conserving them and ensuring their future is to determine TAC for each harvested fish stock within the EEZ, and states have a duty under the UNCLOS not to endanger the living resources by over-exploitation.⁷⁰⁵ When the same fish stocks and associated fish stocks occur within the EEZ of two or more coastal states, then the states must reach an agreement and coordinate their conservation measures.⁷⁰⁶ Similar principles also apply when fish stocks occur in the area beyond and adjacent to the EEZ.⁷⁰⁷ This is usually done by agreeing upon a TAC for harvested stocks. Similar requirements have been set out for the regulation of highly migratory species.⁷⁰⁸

Both straddling and highly migratory fish stocks are further regulated under the Straddling Fish Stocks Agreement, which uses a precautionary approach,⁷⁰⁹ applicable only to straddling fish stocks and highly migratory fish stocks⁷¹⁰ The TAC is based upon the best scientific evidence available to the coastal state taking the TAC decision.⁷¹¹

⁷⁰¹ See further: UNCLOS, *inter alia*, Articles 1-4, 55, 76 and 86.

⁷⁰² See further Part XII on the protection a preservation of the marine environment. This framework is further elaborated in regional treaties, such as in the OSPAR.

⁷⁰³ UNCLOS, Article 62.

⁷⁰⁴ *Ibid.* e.g. Article 61(3).

⁷⁰⁵ *Ibid.* Article 61(1),

⁷⁰⁶ Many regional and bilateral agreements are in force regulating further the cooperation of interested states, e.g. sharing biological resources.

⁷⁰⁷ UNCLOS, Article 63.

⁷⁰⁸ *Ibid.* Article 64.

⁷⁰⁹ Straddling Fish Stocks Agreement, Articles 5 and 6.

⁷¹⁰ Such as tuna, dolphins and particular sharks. See Annex I to the UNCLOS.

⁷¹¹ In practice the scientific advice is not always followed to the letter since social and economic considerations are often brought to the balancing of the competing interests. This is e.g. how TACs have been decided upon by the EC and, *inter alia*, Iceland.

The management measure is set out to *maintain* or *restore* the population of harvested species

“at levels which can produce the *maximum sustainable yield*,⁷¹² as qualified by relevant environmental and economic factors, including the economic needs of coastal fishing communities and the special requirements of developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards ...”

as stipulated in Article 61(2) of the UNCLOS. The term does therefore not reflect a purely ecological limitation as it also takes economic and social factors directly into account. Sedentary species occurring within the EEZ are only subject to the national regulations of the respective coastal states.⁷¹³ Finally, coastal states have the chance to define particular maritime areas within the EEZ in order to protect them, *inter alia*, for ecological reasons. In line with this the UNCLOS provides a particular procedure for the state to follow.⁷¹⁴

Although the main emphasis in UNCLOS is on the conservation and management of fish stocks, the regime nonetheless provides general principles for other components of biodiversity.⁷¹⁵ In line with this, the UNCLOS, on the basis of the principle of optimum utilisation⁷¹⁶ provides rules for the conservation and management of marine mammals.⁷¹⁷ But as is generally known, the most important international treaty in this respect is the Whaling Convention from 1946, which is applicable in “all waters”.⁷¹⁸ However, under the UNCLOS, states can unilaterally prohibit, limit or regulate the exploitation of marine mammals.

As far as whales are concerned, the management measures have been decided upon by states through international organisations.⁷¹⁹ Even though older than the UNCLOS, the Whaling Convention has *de facto* exercised a strict protective management approach with regard

⁷¹² Emphasis added.

⁷¹³ UNCLOS, Articles 68 and 56.

⁷¹⁴ See further: *ibid.* Article 211.

⁷¹⁵ See also the *Southern Bluefin Tuna Case* (New Zealand v. Japan and Australia v. Japan), Requests for provisional measures, 1999, cited as *the Southern Bluefin Tuna Case*, where the ITLOS concluded that Japan could not increase their fishing quota even though the purpose was labelled as scientific.

⁷¹⁶ UNCLOS Article 62(1).

⁷¹⁷ *Ibid.* Article 65 and also Article 120 applicable to the high seas.

⁷¹⁸ Whaling Convention, Article III.

⁷¹⁹ UNCLOS, Article 65.

to larger whales, which also allows for the possibility of exceptions.⁷²⁰ That it can do this is due to the active role of the International Whaling Commission (IWC) and its scientific backup.⁷²¹

Other marine mammals occurring within the EEZ, such as seals, if they are managed at all, usually do not enjoy much protection unless conservation measures have been particularly decided upon by states on a regional basis. Both anadromous (*inter alia*, salmon) and catadromous species (*inter alia*, eels) are only generally regulated by the UNCLOS' provisions.⁷²² The former are subject to the national regulation, "appropriate regulatory measures for fishing"⁷²³ of the state of origin and also subject to cooperative measures enacted by the coastal states in the region. The latter are primarily subject to the coastal states' regulatory measures. In the case of anadromous stocks, such as salmon, some regional treaties have advanced their preventive approaches in the management of the species by agreeing upon precautionary measures.⁷²⁴

When it comes to the high seas, the UNCLOS only indirectly regulates fishing, as the principle of the freedom of all states to fish on the high seas applies,⁷²⁵ which is, however, subject to TACs based upon best scientific evidence, other conservation measures, and international cooperation of states. Although not particularly mentioned in Part VII of the UNCLOS, the same thing, in principle, applies to whaling. However, the flag state has controlling duties over ships flying its flag.⁷²⁶ Within the Area, no particular rules apply to living resources. Thus, their utilisation is open and free for all states and only subject to national regulation if any, as concluded in section 9.2.3.⁷²⁷

⁷²⁰ The so-called Schedule sets the practical scope of the Whaling Convention and lists the species that are subject to conservation and protection. See further Article V of the Whaling Convention.

⁷²¹ See further: Whaling Convention, Article III.

⁷²² See further Articles 66-67 of UNCLOS.

⁷²³ *Ibid.* Article 66(1).

⁷²⁴ See further the Reykjavík Convention and also NASCO Agreement on Adoption of a Precautionary Approach. CNL(98). Report of the 15th Annual Meeting of the Council of NASCO.

⁷²⁵ Article 87, UNCLOS.

⁷²⁶ *Ibid.* Article 94(1), and Articles 116-119.

⁷²⁷ See further: *ibid.* Article 133(a) and (b) and *e.g.* Article 135.

The UNCLOS' operative provisions are right and duty oriented. States have particular rights and bear certain duties within each jurisdiction belt that the UNCLOS defines in some details.

UNCLOS does not conserve biodiversity as such, nor does it directly promote sustainable use of its components in so many words. On the other hand, the regime refers to *living resource* and also, in some instances, a form of an ecological approach is applied. Moreover, the regimes provide the minimum requirements for conserving and managing living resources, basically fish stocks, marine mammals, anadromous and catadromous species. Other components of biodiversity are not particularly subject to the standard, and thus internationally unregulated. In order to further the protection and management of the components to which UNCLOS is applicable, states parties usually enter into further cooperation and negotiation on how to manage and utilise particular species.

9.3.4.2 CBD as a control system

The CBD is widely accepted, global, and applicable to all biodiversity – and not to particular species only. The CBD is by many thought to reflect a framework convention.⁷²⁸ The CBD is also by some thought to be a failure and not being reflecting what is really needed to protect biodiversity.⁷²⁹

The term biodiversity is defined as “the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.”⁷³⁰ CBD's parties have particularly acknowledged the deteriorated state of biodiversity as the Hague Ministerial Declaration (2002) reflects by reconfirming

“the commitment to have instruments in place to stop and reverse the current alarming biodiversity loss at the global, regional, sub-regional and national levels by the year 2010;”⁷³¹

⁷²⁸ See, *inter alia*, Louka 2002, pp. 129-130.

⁷²⁹ See further the views of Guruswamy. He draws the attention to CBD's lack of an explicit commitment to protect biodiversity and also that it fails to include an extra-territorial dimension and states' duty to protect the global commons. Guruswamy 1998, pp. 353-355.

⁷³⁰ CBD, Article 2.

⁷³¹ The Hague Ministerial Declaration (2002), *inter alia* item 15(d). The parties have taken this further by the acceptance of CBD COP Decision VII/30 (2004) Strategic

The parties to the CBD are apparently not too optimistic that the 2010 target will actually be achieved. Thus, during the 2008 COP meeting, several new decisions were agreed upon. They include mechanisms for the implementation of the CBD and inputs to the process for revising the original Strategic Plan beyond 2010.⁷³² Furthermore, the parties have, *inter alia*, decided to work on a new multi-year programme for the period 2011-2022.⁷³³

The CBD's scope of application is (a) in the case of components of biodiversity, in areas within the limits of its national jurisdiction, and (b) in the case of processes and activities, regardless of where their effects occur, carried out under state jurisdiction or control, within the area of its national jurisdiction or beyond such limits.⁷³⁴

CBD's objectives are three:

- (1) the conservation of biodiversity,
- (2) sustainable use of its components, and
- (3) the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources.⁷³⁵

Concurrently, the CBD stipulates the sovereign right of states to exploit their own resources in line with their own environmental policies, as well as the states' responsibility for ensuring that activities that are carried out within their jurisdiction or control do not cause damage to the environment of other states or in areas beyond limits of national jurisdiction.⁷³⁶

The CBD builds upon several key principles and concepts, which the parties have elaborated further.

Plan: further evaluation of process, and CBD COP Decision VII/32 (2004) The Programme of work of the Convention and the Millennium Developmental Goals. Moreover, CBD COP Decision VIII/15 (2006) Framework for monitoring implementation of the achievement of the 2010 target and integration of targets into the thematic programmes of work; CBD COP Decision IX/8 (2008) Review of implementation of goals 2 and 3 of the Strategic Plan, and CBD COP Decision IX/9 (2008) Process for the revision of the Strategic Plan.

⁷³² CBD COP Decision IX/8 (2008).

⁷³³ CBD COP Decision IX/9 (2008).

⁷³⁴ CBD, Article 4.

⁷³⁵ *Ibid.* Article 1.

⁷³⁶ *Ibid.* Article 3.

Sustainable use

The first one is *sustainable use* that is given a general definition in the convention as

“the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biodiversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.”⁷³⁷

To further the realisation of this objective, several general objectives as well as sub-objectives for particular fields, are reflected in individual COP decisions.⁷³⁸

Ecosystem approach

The second concept or principle, not in so many words present in the operational text of the convention itself, is the *ecosystem approach*. The term *ecosystem* is defined in the CBD as the

“dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.”⁷³⁹

CBD’s parties have by enacting several decisions elaborated further on the concept and are being encouraged to implement these decisions. More accurately, an ecosystem approach is an integrative approach, or method, to natural resources, *i.e.* of land and water and as well as to biological resources. Moreover, it is an approach which supports the conservation and sustainable use in a fair manner.⁷⁴⁰

One of the key issues in applying the ecosystem approach is *adaptive management*. The core element is that the management is adaptable and able to adjust to new and enhanced information and uncer-

⁷³⁷ *Ibid.* Article 2.

⁷³⁸ See, *inter alia*, general objective setting present in CBD COP Decision VI/13 (2002) underlining the importance of conservation and utilisation of biodiversity and that the issue requires a comprehensive approach in all fields for all types of biodiversity. For particular field, see *e.g.* for agriculture, CBD COP Decision II/11 (1995). Finally, CBD COP Decision VII/12 (2004) on sustainable use and providing a more detailed approach with particular emphasis on Article 10 of the CBD on the sustainable use of component of biodiversity. The decision is accompanied with the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity that contains fourteen principles that provide an import foundation for planning and decision making.

⁷³⁹ CBD, Article 2.

⁷⁴⁰ See further CBD COP Decision V/6 (2000) and the wide-ranging CBD COP Decision VII/11 (2004) both on the ecosystem approach. By applying the approach the parties implement the three fundamental objectives of the CBD.

tain elements, since ecosystems are constantly changing. Otherwise the conservation methods would be of little use.⁷⁴¹

The ecosystem approach builds upon twelve principles, which all reflect an acceptance of the fact that all measures applied have to be adjusted to the nature of ecosystems and these measures include planning and new legislation.⁷⁴²

Precautionary principle

The CBD's text as such does not mention the precautionary principle. A reference to a precautionary approach is nevertheless found in the convention's preamble and is here labelled as the third fundamental principle. Its location obviously weakens the principle's legal effects. On the other hand, the parties obviously deem the principle of importance for the conservation of biodiversity, since many COP decisions refer to it and implement the approach, *inter alia*, in decisions relating to coastal and marine biodiversity and alien species.⁷⁴³ However, the best example is the acceptance of the Cartagena Protocol that directly refers to the version found in Principle 15 of the Rio Declaration.

Conservation

The fourth principle, or *conservation* of biodiversity, can be looked at as a general overarching principle basically reflected in the CBD's Articles 6-14. The measures are diverse but have the same objective; to halt the furtherance of biodiversity deterioration, to ensure that biodiversity can continue to thrive, and to restore biodiversity. The parties are to take these measures *as far as possible and appropriate*.⁷⁴⁴

General measures for conservation and sustainable use include national strategies, plans or programmes and the integration of conservation and sustainable use into the relevant sectoral or cross-sectoral plans, programmes and policies.⁷⁴⁵ Furthermore, the identification of components of biodiversity in relation to its conservation and sustainable use; monitoring them in relation to conservation and sustainable use and the identification of processes and categories that

⁷⁴¹ See further CBD COP Decision VII/11 (2004).

⁷⁴² See further, *inter alia*, Decision V/6 (2000), and VII/11 (2004) all bearing the title: Ecosystem approach. Biodiversity Handbook 2005, pp. 585-592 and 1075-1104.

⁷⁴³ See, *inter alia*, CBD COP Decision VI/23 (2002).

⁷⁴⁴ See, *inter alia*, Articles 7-8 and 10 of the CBD.

⁷⁴⁵ CBD, Article 6.

have or are likely to have significant adverse impacts on conservation and sustainable use, and maintaining, organising, dating and monitoring the activities.⁷⁴⁶

Conservation *in situ* plays a fundamental role in conserving biodiversity. Thus the parties are to establish a system of protected areas and guidelines for their selection and management; regulate or manage biological resources important for conservation both within and outside protected areas; promote the protection of ecosystems, habitats and the maintenance of viable populations of species in nature; promote sustainable development in areas adjacent to the protected ones; restore degraded ecosystems and promote the recovery of threatened species; regulate and control the risks involved with the use and release of LMOs; prevent the introduction of, or eradicate and control alien species that are threatening ecosystems, habitats or species; provide the conditions that are needed for the compatibility of present uses and for conservation with sustainable use; take account of and maintain the knowledge of indigenous and local communities; develop or maintain the necessary legislation and other regulatory provisions for the protection of threatened species and populations; regulate or manage processes which have an adverse effect on biodiversity, and finally, contribute financially to support *in situ* conservation in the developing countries.

Several measures need to be taken in order to use components of biodiversity in a sustainable manner. The CBD outlines a number of them. Included are integration of conservation and sustainable use of biological resources into national decision-making, the adoption of measures to avoid or minimise adverse impacts on biodiversity, the protection of customary uses that are compatible with the new approaches, and finally the encouragement of cooperation between the governmental authorities and the private sector.⁷⁴⁷

Economic incentives, research and training obviously play a part in reaching the three folded objectives of the CBD. In line with this, the parties are, *inter alia*, to establish scientific programmes and to further education and public awareness in order to conserve biodiversity and its sustainable use.⁷⁴⁸

⁷⁴⁶ *Ibid.* Article 7. See also Annex I to the convention providing a general frame on this issue.

⁷⁴⁷ *Ibid.* Article 10.

⁷⁴⁸ *Ibid.* Articles 11-13.

As in most recent international regimes in the environmental field, impact assessments and the duty of minimizing adverse impacts are given attention. In line with this, the CBD parties are to introduce the appropriate EIA procedures for proposed projects likely to have significant adverse effects on biodiversity, as well as SEA procedures in the case of programmes and policies likely to have such effects. Tied to impact assessments are cooperative duties, exchange of information, consultation and notification when activities are likely to have an adverse impact on the biodiversity of other states or in areas beyond state jurisdictions.⁷⁴⁹

The CBD addresses the problem of the relationship with other international conventions relating to biodiversity. According to Article 22 of the convention, the relationship is governed by two basic principles:

First the CBD does not have any effect on the rights and obligations of the contracting parties, derived from existing international agreements,⁷⁵⁰ with one exemption, *i.e.* if by exercising the rights and obligations that existing agreements hold the parties would cause a serious damage to or threat to biological diversity. If this legal situation arises, the CBD prevails.⁷⁵¹ In de Klemm's view this is not confined to environmental agreements.⁷⁵² How this rule is to be relied upon is on the other hand unclear.

Second, with respect to the marine environment the CBD shall be implemented consistently with the rights and obligations of states under the law of the sea.⁷⁵³ G. Ulfstein draws the attention to the fact that Article 22 refers to "law of the sea" but not to agreements in this field. In his view this includes the general customary and conventional legal frameworks, basically the UNCLOS, but is excluding particular fisheries agreements and conventions on marine pollution.⁷⁵⁴

⁷⁴⁹ *Ibid.* Article 14(1).

⁷⁵⁰ The date that marks the inter-temporal limits is December 29, 1993, the date when the CBD came into force.

⁷⁵¹ International agreements of relevance here are *e.g.* the Ramsar Convention, CITES and also particular agreements relating to international trade and intellectual property rights, such as the ones that have been agreed upon under the WTO umbrella.

⁷⁵² de Klemm/Shine 1993, pp. 24-25.

⁷⁵³ The agreements which are most relevance in this respect are the UNCLOS and the Straddling Fish Stocks Agreement.

⁷⁵⁴ See further on this issue: Ulfstein 2002, pp. 502-503.

Moreover, the exemption above does not seemingly apply to the law of the sea.⁷⁵⁵

In fulfilling its objectives to strengthen the conservation measures and in order to meet the 2010 target, the CBD COP has on several occasions taken decisions where the necessity of cooperation with other international regimes in the field of biodiversity has been stressed.⁷⁵⁶ Consequently, the CBD has entered into several cooperative arrangements with other conventions, particularly biodiversity-related conventions, the scientific community and relevant international organisations and, finally, stake holders groups.⁷⁵⁷

Particular emphasis has been placed on international cooperation by means of international treaties covering biodiversity issues which are considered by the CBD, by the Bonn Convention, CITES, the International Seed Treaty, the Ramsar Convention and the World Heritage Convention.⁷⁵⁸ In this respect, a memorandum of cooperation has been entered into with each of the treaties; joint working programmes have been established as well as a Biodiversity Liaison Group. Cooperative programmes have, *inter alia*, focused on migratory birds, exploitation of wild plants and animals, protected areas, wetlands and other issues concerning the conservation of biodiversity and in line with the scope of the cooperative regimes.⁷⁵⁹

9.3.4.3 Examples from EC law

Nature conservation, including habitat and species protection, has been an important component of EC environmental legislation since the late seventies.⁷⁶⁰ The ECJ has taken a strict view on these issues and the Member States have had to be very precise when incorporating both the birds and the habitat directives.⁷⁶¹ Furthermore when a

⁷⁵⁵ de Klemm/Shine 1993, pp. 24-25.

⁷⁵⁶ See further CBD COP Decision VII/6 (2004) Cooperation with other conventions and international organizations and initiatives.

⁷⁵⁷ See further on the CBD and its tools for conservation, e.g. Jeffery 2008, pp. 72-77.

⁷⁵⁸ The regime has as an objective the preservation of the world's cultural and natural heritage by means of listing them and placing them under international scrutiny.

⁷⁵⁹ See further: <http://www.cbd.int/cooperation/related-conventions/activities.shtml> and e.g. 2nd Memorandum of Cooperation with the Convention on Biological Diversity (2005), available on http://www.ramsar.org/cbd/key_cbd_mou_2005.htm.

⁷⁶⁰ The habitats' directive reflects international obligations in the field of biodiversity, including the CBD. See further: Verschuuren 2002, pp. 251-252.

See on the importance of the habitats' directive and models for the balancing of interests: Nollkaemper 1997, pp. 271-286.

⁷⁶¹ Verschuuren 2003, p. 307.

site has been formally protected in line with EC law, it has turned out to be difficult for states to reduce their size or otherwise diminishing their compatibility to the EC objectives.⁷⁶²

In this respect it is of interest to scrutinise how the ECJ construed the birds' directive in Case C-57/89, the *Leybucht Case*.⁷⁶³ According to the original text of Article 4(4) of the directive, the Member States, when habitat areas (special protection area, SPA) had been protected in line with Article 4(1), were under the obligation to take appropriate steps to avoid their deterioration, including the avoidance of any disturbances affecting birds. The Commission claimed that dyke-building operations in the Leybucht ran counter the protection of birds in line with Article 4(1) and was damaging their habitat. It furthermore claimed that the costal defence measures (the strengthening of a dyke) were only acceptable where human life was threatened.⁷⁶⁴ The central question in the case was if, or whether, and under what conditions, a Member States could reduce the size of a SPA.⁷⁶⁵ The ECJ observed that even though the Member States

“have a certain discretion with regard to the choice of the territories which are most suitable for classification as [SPAs] ..., they do not have the same discretion ... in modifying or reducing the extent of the areas, since they have themselves acknowledged in their declarations that those areas contain the most suitable environments for the species ... If that were not so, the Member states could unilaterally escape from the obligations imposed on them by Article 4(4) ...”⁷⁶⁶

Furthermore the ECJ observed that grounds for reducing the size

“must correspond to a general interest which is superior to the general interest represented by the ecological objective of the directive. In that context the interests referred to in Article 2 of the directive, namely economic and recreational requirements, do not enter into consideration.”⁷⁶⁷

The ECJ continued and stated that

⁷⁶² See further an overview over selected ECJ case law concerning the birds' directive and the habitats directive. *Ibid.* pp. 312-210. See also an analysis of the habitats directive on its tenth anniversary; cf. Diaz 2001, pp. 287-295.

⁷⁶³ Case C-57/89, *Commission v. Germany*, [1991] ECR I-883. Case C-57/89, referred to as the *Leybucht Case*.

⁷⁶⁴ *The Leybucht Case*, paras. 7 and 8.

⁷⁶⁵ *Ibid.* para. 18.

⁷⁶⁶ *Ibid.* para. 20.

⁷⁶⁷ *Ibid.* para. 22.

“the reason put forward ... the danger of flooding and the protection of the coast constitute sufficiently serious reasons to justify the dyke works and the strengthening of coastal structures as long as those measures are confined to a strict minimum and involve only the smallest possible reduction of the [SPA]”⁷⁶⁸

However, the ECJ rejected that a particular part of the project could be justified on the same grounds. That part aimed to facilitate fishing vessels an access to a particular harbour in the area.⁷⁶⁹

In J. Verschuuren’s view the decision of the Court was considered too strict.⁷⁷⁰ However, the text of the first sentence of Article 4(4) was replaced with Article 7 of the habitats directive. Article 7(4) acknowledges, first, that imperative reasons of overriding public interests, including social or economic ones, can justify an acceptance of negative implications for special area of conservation, and second, if the site is hosting a priority habitat type and or species, then justification relating to human health or public safety, or other imperative reasons of overriding public interest could be accepted.

9.3.4.4 Examples of some narrower control systems

The Ramsar Convention

The Ramsar Convention is widely accepted as an avenue for international cooperation on wetlands⁷⁷¹ and birds ecologically dependent on them.⁷⁷² The contracting parties are aware of the ecological functions of wetlands as regulators of water and their importance as habitats for waterfowl. Migrating waterfowl are considered an international resource under the regime.⁷⁷³

The regime relies upon one basic conservation method, namely the formal designation of defined wetland areas. The parties are to designate wetlands within their territory to be included in the List of Wetlands of International Importance (the List⁷⁷⁴).⁷⁷⁵ The boundaries of each wetland have to be precisely described and delimited on a

⁷⁶⁸ *Ibid.* para. 23.

⁷⁶⁹ *Ibid.* para. 24.

⁷⁷⁰ Verschuuren 2003, p. 310.

⁷⁷¹ “areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters”, Ramsar Convention, Article 1(2).

⁷⁷² *Ibid.* Article 1(2).

⁷⁷³ *Ibid.* preamble.

⁷⁷⁴ An updated List, is available on <http://www.ramsar.org/index.html>

⁷⁷⁵ Ramsar Convention, Article 2(1).

map which may also include the surrounding wetland environments.⁷⁷⁶ Wetlands eligible for listing must fulfil particular criteria and be selected on account of their international significance in terms of ecology, botany, zoology, limnology or hydrology.⁷⁷⁷

The convention particularly stipulates that the inclusion of a wetland on the List does not prejudice the exclusive sovereign rights of the states where the respective wetland is situated.⁷⁷⁸ When states become parties to the Ramsar Convention they have to designate at least one wetland for inclusion in the List⁷⁷⁹ and can add wetlands to the List and extend the boundaries of already included ones.⁷⁸⁰ Only in exceptional cases can the boundaries of an already listed wetland be changed, or as stipulated in article 2(5)

“because of its urgent national interest, [a state can] delete or restrict the boundaries of wetlands already included by it in the List and shall, at the earliest possible time, inform the organisation or government responsible for the continuing bureau duties ...”⁷⁸¹

This commitment must be interpreted narrowly; contracting state parties cannot, under the Ramsar regime, justify deletion or restriction of the already established boundaries of a wetland only for reasons of economic gain. Moreover, when such measures are deemed necessary, the lost wetland resources should be compensated for as far as possible, that is the party should create additional nature reserves for wetland dependent birds either in the same area or elsewhere.⁷⁸²

Ramsar offers a soft approach on migratory stocks of birds whereby the parties are to *consider* their international responsibilities for their conservation, management and wise use in relation to desig-

⁷⁷⁶ *Ibid.* Article 2(1).

⁷⁷⁷ *Ibid.* Article 2(2). See furthermore: Information Sheet on Ramsar Wetlands (RIS) 2006-2008 version and its Annex I on Ramsar Classification on System for Wetland Type. Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX. 21 and IX. 22 of the 9th Conference of the Contracting Parties (2005). The 9th Meeting of the Conference of the Contracting Parties – Report of the Conference.

⁷⁷⁸ Ramsar Convention, Article 2(3).

⁷⁷⁹ *Ibid.* Article 2(4).

⁷⁸⁰ *Ibid.* Article 2(5).

⁷⁸¹ *Ibid.*

⁷⁸² Ramsar Convention, Article 4(2).

nation on the List. However if the boundaries of wetlands are altered⁷⁸³ the parties should endeavour through management to increase the populations on appropriate wetlands.⁷⁸⁴ Finally, the parties are to promote the establishment of nature reserves on wetlands whether or not listed⁷⁸⁵ and formulate and implement their planning so as to promote the conservation and wise use⁷⁸⁶ of wetlands that have been included in the List situated within their territory.⁷⁸⁷

The contracting parties have a duty to inform the organisation without delay of ecological changes on listed wetlands that have occurred, are taking place or are likely to take place as a result of technological developments, pollution or other human interference.⁷⁸⁸ In order to create pressure on parties who have designated wetlands on the List whose ecological character has already changed, is changing or likely to do so, the site may be listed on the Montreux Record. When a site is placed on the Montreux Record the state in question must take swift and effective action to prevent or remedy ecological change on the respective wetland.⁷⁸⁹

Furthermore, the contracting parties are to encourage research, information exchange and publications on wetlands and their biodiversity⁷⁹⁰ and promote training of competent personnel.⁷⁹¹ Finally, contracting parties have a duty to consult with each other when implementing the convention's obligations, particularly in territories where a water system is shared by two or more of them, and to coordinate the policies on shared wetlands and their biodiversity.⁷⁹²

A key element in wetland management is the concept of *wise use*, a concept which has been reviewed over time and nowadays is defined as

⁷⁸³ *Ibid.* Article 2(6).

⁷⁸⁴ *Ibid.* Article 4(4).

⁷⁸⁵ *Ibid.* Article 4(1).

⁷⁸⁶ See further: Ramsar Handbook¹ 2007, pp. 1-30.

⁷⁸⁷ Ramsar Convention, Article 3(1).

⁷⁸⁸ *Ibid.* Article 3(2).

⁷⁸⁹ *Ibid.*

⁷⁹⁰ *Ibid.* Article 4(4).

⁷⁹¹ *Ibid.* Article 4(5).

⁷⁹² *Ibid.* Article 5(1).

“the maintenance of [wetlands] ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development.”⁷⁹³

Furthermore, a sophisticated conceptual framework for wise use of wetlands based upon the new definition reflects a broad approach to sustainable development policies. The new approach describes the term *ecosystem* “as the complex of living communities (including human communities) and non-living environment (Ecosystem Components) interacting (through Ecological Processes) as a functional unit which provides *inter alia* a variety of benefits to people (Ecosystem Services).”⁷⁹⁴ The framework emphasises 14 key areas for the future of wetlands by highlighting *e.g.* cross-sectoral decision-making and an integrated river basin approach.⁷⁹⁵

To summarize the Ramsar Convention: It applies to wetlands that have been included in the List and which are situated within the territory of its contracting parties. Its objective is to conserve and manage wetlands in a sustainable manner and in line with the conceptual framework of the *wise use* principle which acknowledges the international importance of wetlands for the many species of birds that depend on them. The concept of *wise use* has been recently redefined and is presently part of the broader definition of the ecosystem approach.

The Bonn Convention

Rather differently oriented is the Bonn Convention. It targets several migratory species, including mammals, birds, reptiles and fish, and is meant to enhance their conservation. A migratory species is basically an entire population or a geographically separate part or significant proportion thereof that cyclically and predictably crosses one or more national jurisdictional boundary.⁷⁹⁶

The Bonn Convention does not hold an Article stating its objective, but from its preamble it is clear that the convention is biodiversity

⁷⁹³ Item 22. Resolution IX. 1, Annex A. The 8th Meeting of the Conference of the Contracting Parties to the Ramsar Convention – Report of the Conference. Ramsar Convention Manual 2006, section 4.2.

⁷⁹⁴ Ramsar Handbook¹ 2007, item 6, p. 5.

⁷⁹⁵ *Ibid.* p. 7, 12 and *passim*. See also on the how the Ramsar has adjusted to developments in international biodiversity law, Bridgewater 2008, pp. 100-106.

⁷⁹⁶ The Bonn Convention, Article I.

oriented. It states that “wild animals in their innumerable forms are an irreplaceable part of the earth’s natural system which must be conserved for the good of mankind;”⁷⁹⁷ and “that each generation of man holds the resources of the earth for future generations and has an obligation to ensure that this legacy is conserved and, where utilised, is used wisely.”⁷⁹⁸ Moreover, the contracting parties are conscious “of the ever-growing value of wild animals from environmental, ecological, genetic, scientific, aesthetic, recreational, cultural, educational, social and economic points of view.”⁷⁹⁹

The operative structure of the Bonn Convention consists of three basics. First, it defines some fundamental terms; the conservation status of a migratory species, which is worked out on the basis of “the sum of the influences acting on the migratory species that may affect its long-term distribution and abundance”;⁸⁰⁰ second, and even more importantly, a definition on when the conservation status will be taken as favourable and that is when “(1) population dynamics data indicate that the migratory species is maintaining itself on a long-term basis as a viable component of its ecosystems; (2) the range of the migratory species is neither currently being reduced, or is likely to be reduced, on a long-term basis; (3) there is, and will be in the foreseeable future, sufficient habitat to maintain the population of the migratory species on a long-term basis; and (4) the distribution and abundance of the migratory species approach historic coverage and levels to the extent that potentially suitable ecosystems exist and to the extent consistent with wise wildlife management;”⁸⁰¹ and finally, it defines a standard for measuring when the conservation status is unfavourable and that is when any of the conditions for a favourable status is not met.⁸⁰²

On the basis of reliable evidence, including the best scientific evidence available, *endangered species* are listed in Appendix I.⁸⁰³ The same method is used when a species is removed from the list by the COP if the same evidence as above indicates that the species is no

⁷⁹⁷ *Ibid.* first preambular paragraph.

⁷⁹⁸ *Ibid.* second preambular paragraph.

⁷⁹⁹ *Ibid.* third preambular paragraph.

⁸⁰⁰ *Ibid.* Article I(1)(b).

⁸⁰¹ *Ibid.* Article I(1)(c)(1)-(4).

⁸⁰² *Ibid.* Article I(1)(d).

⁸⁰³ *Ibid.* Article III(1).

longer endangered.⁸⁰⁴ The effects of the listing are that the so-called “range states” of a particular migratory species, that is the states into whose jurisdiction the migratory species enters, are bound to take particular action. They shall endeavour to take certain conservative, preventive and restorative measures in order to protect the species habitats, as well as to prevent and remove adverse effects from activities that may inhibit the migration of the species, and finally, to put a stop to, reduce or control endangering factors relating to exotic species.⁸⁰⁵ Moreover, the range states shall prohibit the taking (that is taking, hunting, fishing, capturing, harassing, deliberate killing) of the listed migratory species.⁸⁰⁶ The prohibition is subject to particular exceptions that need to be notified.⁸⁰⁷ Finally, the COP may recommend that range states take further measures considered appropriate to benefit a species.⁸⁰⁸

By introducing Appendix II, that contains a listing of migratory species that have (1) an *unfavourable conservation status* and require international agreements for their conservation and management, and (2) species that have a conservation status which would significantly benefit from further international cooperation by an international agreement, a particular quality standard for biodiversity is established and that builds upon scientific evaluation.⁸⁰⁹

In order to ensure the effectiveness of the agreements, the Convention contains particular guidelines and in some instances detailed criteria for their structure, whose main purpose is to ensure the restoration of the migratory species to a favourable conservation status.⁸¹⁰

On the basis of the Bonn Convention several agreements have been concluded, *inter alia* covering particular species, such as seals, bats, cetaceans and birds.

The Bonn Convention provides a professional framework within which to evaluate and protect species from an ecological point of view. Moreover, the terms favourable or unfavourable conservation status provide one form of quality standard that is based upon scien-

⁸⁰⁴ *Ibid.* Article III(3).

⁸⁰⁵ *Ibid.* Article III(4).

⁸⁰⁶ *Ibid.* Article III(5).

⁸⁰⁷ *Ibid.* Article III(7).

⁸⁰⁸ *Ibid.* Article III(6).

⁸⁰⁹ *Ibid.* Article IV(1) and Article IV(2)-(5).

⁸¹⁰ *Ibid.* Article V.

tific information. Apart from the fact that the treaty has not enjoyed wide acceptance, its main weakness is that it does not emphasise habitat protection, since its operational component concentrates on individual species. Thus, even though a species may be considered endangered, and thus listed in Appendix I, if its conservation status or the necessary habitats are being diminished or their quality reduced, the targeting of individual species may not enhance ecological sustainability or the realisation of the 2010 target.

International trade – the CITES

The CITES on the other hand constitutes an independent trade related control system for particular species. CITES applies to international trade – that is to exports, re-exports, imports and introduction from the sea⁸¹¹ – in species that have been given the status of being *endangered*. The CITES lacks an objective, but from its preamble it is clear that it is *biodiversity* oriented since the contracting parties recognise

“that wild fauna and flora in their many beautiful and varied forms are an irreplaceable part of the natural systems on the earth which must be protected for this and the generations to come.”⁸¹²

Moreover, the CITES is set out as a co-operative mechanism “for the protection of certain species of wild fauna and flora against over-exploitation through international trade.”⁸¹³ On the basis of scientific advice, CITES relies upon a listing method, and the scope of application is determined by the content of three independent lists of appendixes as follows:

- (1) Appendix I includes listing of species that are threatened with extinction, and trade in these species must be subject to strict regulation as not to endanger them further, and trade may only be authorised in exceptional circumstances.⁸¹⁴
- (2) Appendix II includes listing of species that are not necessarily presently threatened with extinction, but may become so unless trade is subject to

⁸¹¹ CITES, Article I(c).

⁸¹² *Ibid.* first preambular paragraph.

⁸¹³ *Ibid.* fourth preambular paragraph.

⁸¹⁴ *Ibid.* Article II(1).

strict regulation and the species otherwise brought under effective control.⁸¹⁵

- (3) Appendix III is meant to include all species that any CITES party identifies as being subject to regulation within its jurisdiction and requiring trade restrictions.⁸¹⁶

In line with individual CITES provisions,⁸¹⁷ international trade is subject to national permit systems and requirements of particular scientific documentation.⁸¹⁸ The respective national authorities are responsible for these measures,⁸¹⁹ thus making international trade in listed species illegal unless the necessary permits have been issued⁸²⁰ or when particular reservations have been made by individual contracting parties. In principle, international trade with endangered species between parties and non-parties is subject to the same permit mechanism.⁸²¹

As the treaty outlines, no general reservations can be made to the CITES. However, any state has the right to make a specific reservation with regard to (a) any species included in appendix I, II or III, or (b) any part or derivatives specified in relation to a species included in appendix III.⁸²² As usual in international law affecting the environment, the enforcement of CITES' obligations is left to the individual contracting parties through their national legislation.

Thus, it depends upon the national legislation of the respective contracting parties whether or not that part of the regime becomes effective. International statistics indicate that CITES has not really managed to neither prevent the taking of endangered species nor prevent more species from becoming endangered. Moreover, smuggling in endangered species has turned out to be a lucrative business, thus further diminishing possible protection of these species in their natural habitats.⁸²³ In order to avoid legal confusion, CITES takes a stand on the legal relationship with the law of the sea, basically UN-

⁸¹⁵ *Ibid.* Article II(2).

⁸¹⁶ *Ibid.* Article II(3).

⁸¹⁷ *Ibid.* Articles III-V.

⁸¹⁸ *Ibid.* Article VI, VI and VI.

⁸¹⁹ *Ibid.* Article IX laying the duty upon each party to designate the management and scientific authorities at the national level.

⁸²⁰ *Ibid.* Article II(4) and also Article VIII.

⁸²¹ *Ibid.* Article X.

⁸²² *Ibid.* in line with its Article XXIII(2).

⁸²³ See further, *e.g.* Louka 2006, pp. 314-316.

CLOS, where the basic rule is that CITES commitments do not have any effects on the nature and extent of coastal and flag state jurisdiction.⁸²⁴

The international trading mechanism offered by CITES is of little value for safeguarding biological diversity in nature, presently and in the future, *unless* it is backed up by effective environmental legislation at the national level and particularly by profound habitat conservation and wildlife management. Usually, international trade in endangered species or in the species that CITES is trying to prevent and limit trading in takes place *after* the species have been removed from their natural habitats and then the biodiversity damage has already taken place. Moreover, the individual members of the species are often dead when the trade eventually takes place. So from the point of view of ecological sustainability and the realisation of the 2010 target, the mechanism is of very limited value. On the other hand, a strict international regime, which makes international trade in endangered species difficult may have some preventive effects and discourage the taking of species from their natural habitats in the first place.

* * *

The three regimes now described (the Ramsar Convention, the Bonn Convention and CITES) all cover particular parts of biodiversity, that is wetlands, birds dependant on them, or species which have been particularly listed as endangered or otherwise critical. Thus, if particularly defined wetlands have not been accepted as Ramsar sites, or particular species not declared endangered and not listed by either CITES or the Bonn Convention, these regimes do not provide biodiversity in nature with much protection nor ensure its proper management.

9.3.4.5 Concluding remarks

It follows from the characteristics of the UNCLOS that all other regimes relating to the law of the sea, including the Straddling Fish Stocks Agreement and the Whaling Convention, explicitly or implic-

⁸²⁴ CITES, Article XIV(6)

itly build upon, reflect or elaborate further UNCLOS' basic principles, namely the right to utilise living resources and the duty not to endanger them. The management terms include that economic and social conditions can be balanced against these principles. UNCLOS forms a particular international control system for managing and conserving sea-based species. This system has a particular hierarchy, with the UNCLOS principles throne at the top.

Secondly and rather differently developed is the CBD, which provides a broad frame for the conservation and sustainable use of all biodiversity. Its operational text falls short when it comes to the laying down strict principles for sustaining and managing biodiversity. The principles are not absolute and the management and conservatory measures are to be enacted by the parties as far as possible in a way that is compatible with their individual conditions.

The parties to the CBD have nonetheless been active and have agreed upon several important COP decisions. Apart from sustainable use, which is part of the CBD's operative text, COP decisions reflect, *inter alia*, an ecosystem approach, adaptive management and a precautionary approach. The CBD has been influential and is further extended by the cooperative arrangements with other important international treaties in this field.

9.4 Problematizing and further discussions

Once again I will be using the action-reaction model to theorise how the two fundamental control systems function for ecological sustainability and the realisation of the 2010 target. The thrust of the action-reaction relationship is how it illustrates how the different actions and activities, the left side, influence or have an effect on natural systems, including biodiversity and ecosystems and their functions, the right side. Furthermore, the left side can be controlled by regulating the behaviour of states by agreeing upon preventative duties in international treaties. In most cases, these duties have to be made legally operational within national legal systems to have the intended effects. As a fact of nature, the right side only reacts passively to the actions and the activities in line with the laws of nature, which cannot be regulated by the left side. The reversed arrow, B-A, is to illustrate the feed-back factor, including the information on the right side that need

to be transported in order to be able to adjust the left side accordingly. That has been done to a certain extent by, *inter alia*, strengthening the cooperation between several international regimes. Furthermore, by elaborating and agreeing upon particular decisions within existing regimes, decisions that, eventually, have to be reflected in substantive rules that actually influence behaviour.

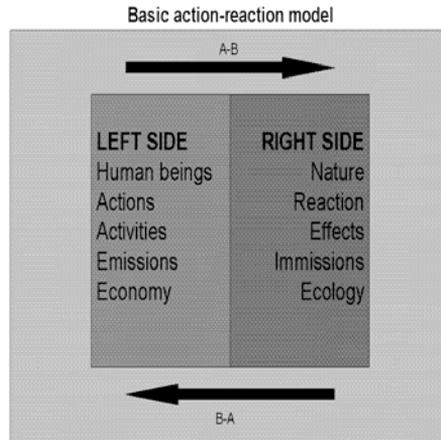


Figure 31

If I highlight the left site, for which the controlling systems have been elaborated, then their fundamentals have not been properly adjusted to the situation on the right side. Both of the fundamental systems covered above, as a general rule reflect right and duty based obligations with a weak reflection of quality or quantity standards for biodiversity and the realisation of the 2010 target. Also as a general rule, both systems seem to allow, at least to a certain extent, the balancing of economic and social interests, thus reflecting a soft sustainability approach.

9.5 Concluding remarks

As I outlined at the beginning, the aim of this chapter was to provide fundamental information on, and facilitate the understanding of, international biodiversity law and its legal prerequisites. The basic argument related to the lack of constraints within the international legal

system, and the soft character of international biodiversity law. Section 9.2 tackled how the location of species makes regulation subject to two fundamental controlling systems. Although different, both systems rely upon national measures, legislation and enforcement mechanisms. In sections 9.3.4.1-9.3.4.2, I looked at international biodiversity law from the perspective of the UNCLOS, or the law of the sea as a control system, on the one hand, and the CBD as a control system, on the other.

In spite of the dangers that the future of biodiversity faces and the objective of halting biodiversity losses by 2010, the two international control systems have been developed to match particular legal reality – right and duty based regulation – rather than to respond to an ecological reality or support ecological sustainability.

Both of these control systems are designed to fit into an international legal model that partially established itself in the late nineteenth century and partially in the mid twentieth century. Moreover, these two systems represent examples of weak sustainability (at best) and thus allow economic and social conditions to be balanced against ecological ones. States have a sovereign right to utilise their biological resources and an obligation to prevent the utilisation from damaging the interests of others. Finally, both of these controlling systems are permissive in the sense that if they do not clearly state what is not allowed, then the principles of the default of international law becomes the ruling system. It is therefore concluded that utilisation of particular stocks and species, habitat reduction and land-use in general can legally be exercised without these being fully within ecological limits.

10. International trade and biodiversity

10.1 Introduction

"Why all the fuss? How much difference does it make? In other words, how altered would the Forest Service's planning process and decision making outcomes be for the national forests if it (1) had to apply conservation biology; (2) had to adopt more indicator species; and (3) had to conduct population surveys to evaluate indicator species viability?"⁸²⁵

Negative environmental aspects resulting from international trade and trade liberalization are thought to relate to how the international trading system promotes, rather than demotes, unsustainable use of the environment and particularly certain natural resources, as it seeks, first and foremost to promote economic growth. Thus, unless environmental safeguards are explicitly inbuilt into international trade regulations, free trade principles can be expected to increase rather than decrease environmental degradation.⁸²⁶

The free trade followers usually argue that there is little empirical evidence to support the idea of a direct link between international trade and environmental impacts, and that only a fraction of ecologically sensitive goods are actually subject to international trade. The causes, as the followers of free trade argue, of environmental degradation are usually tied to different kinds of market failures, *inter alia* failure to fully internalise external environmental costs and improper valuation of ecosystems, or inventory failures, such as subsidies and trade barriers.⁸²⁷

On the other hand several indirect environmental impacts related to free trade have been identified, including production methods and transportation mode.⁸²⁸

⁸²⁵ Nagle/Ruhl 2002, p. 430.

⁸²⁶ See *e.g.* Matsushita/Schoenbaum/Mavroidis 2003, pp. 444-447.

⁸²⁷ *Ibid.*

⁸²⁸ Downes 1999, pp. 19-20.

The WTO legal framework is both diverse and complex. In this study the WTO is viewed as a particular sub-system of the international order, or a controlling program, with potential environmental impacts. There are several agreements that fall under the WTO umbrella. However, only a fraction will be given attention below. The aim, first and foremost, is to provide information on the overriding character of the WTO's free trade principles and particularly on those of the GATT.

10.2 Main features

10.2.1 Overall objectives

The WTO establishes a multilateral trading system that builds upon reciprocity and mutual trading arrangements. WTO was established in 1994 and began to operate on January 1st 1995 in line with Article 1 of the Marrakesh Agreement Establishing the World Trade Organization.⁸²⁹

The WTO's overall objective is reflected in the agreement's first preambular paragraph where the parties recognise

“that their relations in the field of trade and economic endeavour should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment⁸³⁰ and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development.”⁸³¹

Although the WTO Agreement contains a reference to sustainable development and the WTO claims that sustainable development and the protection and preservation of the environment are fundamental WTO goals, implementation of the new policies as well as of new environmental principles, such as the precautionary principle – usually accepted to be one of the principles necessary for successful im-

⁸²⁹ 33 ILM 1125 (1994). Often referred to as the WTO Agreement and sometimes the WTO Charter, see e.g. Jackson 2006, p. 104.

⁸³⁰ Emphasis added.

⁸³¹ WTO Agreement, first preambular paragraph.

plementation of sustainable development – are still on the drawing table, so to speak.

Following the Decision on Trade and the Environment⁸³² in 1994 the Committee on Trade and the Environment (CTE) was established. Its task, *inter alia*, was to tackle the relationship between trade and the environment in order to support sustainable development and investigate whether it was necessary to change the international trading system with regard to these issues.

10.2.2 Adjusting to changing reality

It was however during the Doha Round⁸³³ where the current frame for further work in this field was established, *cf.* the Ministerial Declaration adopted on November 14th 2001,⁸³⁴ which states, *inter alia*,

“... that under WTO rules no country should be prevented from taking measures for the protection of human, animal or plant life or health, or of the environment at the levels it considers appropriate, subject to the requirement that they 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, and are otherwise in accordance with the provisions of the WTO Agreements.”⁸³⁵

Furthermore, the Ministerial Declaration welcomed WTO’s continued cooperation with UNEP as well as other environmental and developmental IGOs in following up the Johannesburg emphasis. The Johannesburg Declaration explicitly referred to the Doha Ministerial Conference as one component of several that were needed for the reaching of sustainable development.⁸³⁶ Furthermore, the Johannesburg Plan of Implementation emphasised on several occasions the importance of the work done within the WTO in relation to implementation of sustainable development policies.⁸³⁷

⁸³² Decision on Trade and Environment, GATT Doc. MTN.TNC/W/141, March 29, 1994.

⁸³³ The Doha Round was finally suspended in 2006 and again in 2008.

⁸³⁴ Ministerial Declaration (Doha) WT/MIN(01)DEC/1. See also Ministerial Declaration (Hong Kong) WT/MIN(05)DEC, reaffirming what was set out in Doha, including para. 31, in relation to the environment and sustainable development.

⁸³⁵ WT/MIN(01)DEC/1. para. 6.

⁸³⁶ Johannesburg Declaration, item 9.

⁸³⁷ See further: Johannesburg Plan of Implementation, *inter alia*, item 31(f), 44(r), 48 and 51. Item 48 reads:

The Declaration's work program contains a particular section on trade and the environment where negotiations on several environmental issues were agreed to.⁸³⁸ Included are negotiations on the following tasks:

- (i) the relationship between the existing WTO rules and trade obligations in multilateral environmental agreements (MEAs),
- (ii) procedures for information exchange between MEA secretariats and the WTO committees, and
- (iii) the reduction or elimination of tariff barriers on environmental goods as well as services.

It was the task of the CTE to pursue this work.⁸³⁹ Since then several contributing events have been organized within the WTO, such as the WTO Symposium on Trade and Sustainable Development that took place in 2005. They have been meant to facilitate the understanding and implementation of sustainable development policies within the WTO. And the work continues.

No substantive changes have been made on the WTO regulatory frame as such, but recent adjudication within the WTO indicates that environmental concerns are being more appreciated than before, though the fundamental legal framework remains unchanged.⁸⁴⁰

A component of this development is how the Appellate Body has approached the WTO Agreement's preamble. In the *Shrimp-Turtle Case*⁸⁴¹ when construing Article XX(g) of the GATT the Appellate body observed:

"Implementing the outcomes of the Doha Ministerial Conference by the members of the World Trade Organization, further strengthen trade-related technical assistance and capacity-building and ensure the meaningful, effective and full participation of developing countries in multilateral trade negotiations by placing their needs and interests at the heart of the work programme of the World Trade Organization."

⁸³⁸ WT/MIN(01)DEC/1, paras. 31-33.

⁸³⁹ See further *ibid.* particular paras. 31-32.

⁸⁴⁰ See further below.

⁸⁴¹ United States – Import Prohibition of Certain Shrimp and Shrimp Products. AB-1998-4. Report of the Appellate Body. WT/DS58/AB/R, October 12, 1998, cited as *the Shrimp-Turtle Case*.

“[T]he words of Article XX(g), “exhaustible natural resources”, were actually crafted more than 50 years ago. They must be read by a treaty interpreter in the light of contemporary concerns of the community of nations about the protection and conservation of the environment. While Article XX was not modified in the Uruguay Round, the preamble attached to the *WTO Agreement* shows that the signatories to that Agreement were, in 1994, fully aware of the importance and legitimacy of environmental protection as a goal of national and international policy. The preamble of the *WTO Agreement* – which informs not only the GATT 1994, but also the other covered agreements – explicitly acknowledges “the objective of *sustainable development*”.”⁸⁴²

10.2.3 Exclusive legal system

All agreements annexed to the WTO Agreement form a unity of law or an independent international legal order – WTO law if one prefers – that is binding upon all WTO members.⁸⁴³ Included in the WTO Agreement’s Annex 1A are both the General Agreement on Tariffs and Trade⁸⁴⁴ from 1994 – originally from 1947 but readopted as part of the WTO Agreement in 1994 – and the Agreement on the Application of Sanitary and Phytosanitary Measures.⁸⁴⁵ The latter is related to health and safety measures that can create trade barriers, usually referred to as SPS measures, and is meant to complement the Agreement on Technical Barriers to Trade.⁸⁴⁶ As stipulated in the former, in Article 1, it is applicable to all sanitary and phytosanitary measures that can, directly or indirectly, affect international trade, and the measures should be applied according to its provisions.

Pursuant to its Article 2, WTO members can take sanitary and phytosanitary measures for the protection of human, animal or plant life or health, only to the extent compatible to the agreement. Furthermore, such measures should as a rule be based upon scientific principles and not maintained without such evidence. The measures should not be applied arbitrarily or in an unjustifiably discriminating way. Finally, sanitary or phytosanitary measures that are in conformity with the Agreement are to be presumed to be in accordance with the obligations of the members under the provisions of the GATT 1994,

⁸⁴² *Ibid.* para. 129.

⁸⁴³ See further: Matsushita/Schoenbaum/Mavroidis 2003, pp. 7-8.

⁸⁴⁴ Known as the GATT 1994 to be legally distinguished from the GATT 1947. See further WTO Agreement, Article II(4).

⁸⁴⁵ See further the listing of other agreements under the WTO umbrella provided in Matsushita/Schoenbaum/Mavroidis 2003, p. 7 *ff.*

⁸⁴⁶ TBT Agreement. *Ibid.* pp. 132-133.

which relate to the use of such measures, and in particular the provisions of Article XX(b) of GATT 1994. Annex 1A furthermore contains the General Interpretive Note⁸⁴⁷ that provides a rule of interpretation: if conflicts should arise between the provisions of GATT 1994 and another Annex 1A Agreement, the latter should prevail.⁸⁴⁸

10.2.4 Member based legal order

As previously mentioned, the WTO is a member based legal system, thus its laws are exclusively binding on WTO members, and only applicable in their transactions which fall under the material scope of the WTO regime as such.⁸⁴⁹ Although sustainable development and optimal use of the world's resources is mentioned in the WTO Agreement's preamble, none of the WTO founding sources particularly targets the conservation of biodiversity in nature – except in relation to SPS measures mentioned above – but, as will be outlined below, the conservation of biodiversity is nonetheless affected by WTO law. Apart from the WTO as such, providing “the common institutional framework for the conduct of trade relations among its Members in matters related to the agreements and associated legal instruments included in the Annexes”,⁸⁵⁰ the organization's main role is to facilitate the implementation, administration and operation of the WTO Agreement;⁸⁵¹ provide a forum for negotiations;⁸⁵² administer the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU)⁸⁵³ and the Trade Policy Review Mechanism.⁸⁵⁴

⁸⁴⁷ General Interpretive Note to Annex 1A stipulating: “In the event of conflict between a provision of the General Agreement on Tariffs and Trade 1994 and a provision of another agreement in Annex 1A to the Agreement Establishing the World Trade Organization ..., the provision of the other agreement shall prevail to the extent of the conflict.”

⁸⁴⁸ See further: Matsushita/Schoenbaum/Mavroidis 2003, pp. 133-134.

⁸⁴⁹ As of May 16th 2008, the WTO had 152 members, including entities such as the European Communities.

⁸⁵⁰ Article II(1) of the WTO Agreement.

⁸⁵¹ *Ibid.* Article III(1).

⁸⁵² *Ibid.* Article III(2).

⁸⁵³ Referred to as the Dispute Settlement Understanding or DSU, annexed to the WTO Agreement.

⁸⁵⁴ Usually referred to as the TPRM. See further Annex 3 to the WTO Agreement.

10.2.5 WTO's governing bodies

The WTO has two governing bodies, the Ministerial Conference that is composed of representatives of all of the members,⁸⁵⁵ and the General Council, also composed of all of the members.⁸⁵⁶ The former is the supreme authority of the WTO while the latter serves as a chief decision making and policy entity when the former is not in session.⁸⁵⁷ Furthermore, several specialised councils and committees work on a wide variety of issues relating to the operation of the WTO.⁸⁵⁸ On the basis of the GATT⁸⁵⁹ and in line with the DSU, a Dispute Settlement Body (DSB)⁸⁶⁰ has been established and the new system became operational on January 1st 1995.⁸⁶¹ The settlement mechanism functions as an international trade court. It has a compulsory jurisdiction and applies legal rules. Furthermore, its decisions are binding on the contending parties, and it has power to impose sanctions if necessary.⁸⁶²

10.2.6 Dispute settlement system

The dispute settlement system is "a central element in providing security and predictability to the multilateral trading system"⁸⁶³ and WTO members recognize that the system serves to preserve the members' rights and obligations under the WTO agreements.⁸⁶⁴

DSU institutions are three:

- (i) the panels that are established by the DSB;⁸⁶⁵
- (ii) the standing Appellate Body that reviews panel rulings,⁸⁶⁶ and

⁸⁵⁵ See further Article IV(1) of the WTO Agreement.

⁸⁵⁶ *Ibid.* Article IV(2).

⁸⁵⁷ See further Matsushita/Schoenbaum/Mavroidis 2003, pp. 9-11, outlining WTO/GATT structure as well providing an overview of the specific agreements for each field of application.

⁸⁵⁸ See further *ibid.* pp. 9-11.

⁸⁵⁹ See further GATT Article XXII and XXIII.

⁸⁶⁰ WTO members also have a possible alternative, or an expeditious arbitration, see further Article 25 of the DSU.

⁸⁶¹ Before the establishment of the WTO there was a dispute settlement system present based upon the GATT, basically panel decisions (panel reports) that needed the Council's acceptance. The system was to a certain extent ineffective due to the fact that the reports were not always accepted by the Council. See on the previous practices: Matsushita/Schoenbaum/Mavroidis 2003, pp. 19-21.

⁸⁶² See further on these issues: Matsushita/Schoenbaum/Mavroidis 2003, pp. 18-51.

⁸⁶³ Article 2(2) of the DSU.

⁸⁶⁴ *Ibid.*

⁸⁶⁵ *Ibid.* Article 2 and also Articles 6-16.

⁸⁶⁶ *Ibid.* Article 17.

- (iii) the DSB that adopts both panel reports⁸⁶⁷ and the reports of the Appellate body.⁸⁶⁸

When the DSB has accepted both the panel's report and the one by the Appellate Body, the decision is legally binding upon the contending parties. On the other hand, they are not binding when it comes to interpreting WTO agreements, nor are they binding on other WTO members.⁸⁶⁹

10.2.7 Core obligations

The core of the WTO's obligations and the cooperation of the members are meant to ensure international free trade. Thus the members commit themselves to providing other members with favourable treatment when trading in goods and services, the main purpose being to lower tariffs by limiting tariff charges in line with the Schedules of Concessions.⁸⁷⁰ The basic obligations are more or less based upon principles present in the GATT. In a nutshell: (a) restrictions are set on tariffs and quotas;⁸⁷¹ (b) the most-favoured-nation principle applies;⁸⁷² and (c) the national treatment principle also.⁸⁷³

10.2.8 GATTs Article XX

Under particular circumstances, GATT Article XX can be invoked by a member in order to limit or restrict one or several of the free trade principles.⁸⁷⁴ In some instances, environmental concerns have been used as a basis to restrict importations from another member by referring to GATT Article XX (b) and/or (g). In other words: individual parties can claim that trade restrictions are justifiable, *inter alia*, if they aim to enhance environmental conservation at the national level.

⁸⁶⁷ *Ibid.* Article 2 and 16.

⁸⁶⁸ *Ibid.* Article 2 and also Article 17(14).

⁸⁶⁹ See further on the DSU, Matsushita/Schoenbaum/Mavroidis 2003, pp. 18-51, and particularly p. 25 on interpretation and the effects on other WTO members.

⁸⁷⁰ In line with Article II of the GATT.

⁸⁷¹ See further: Matsushita/Schoenbaum/Mavroidis 2003, pp. 111-142.

⁸⁷² *Ibid.* pp. 143-154.

⁸⁷³ *Ibid.* pp. 155-180.

⁸⁷⁴ Other concerns, that will not particularly be covered here, can also be brought to the table. See further on Article XX coverage by Matsushita/Schoenbaum/Mavroidis 2003, pp. 176-177, and *passim*.

I will now take a closer look at Article XX. Its title is *General Exceptions*. The relevant text of Article XX reads as follows:

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

...

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

...

(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption;”

Article XX has been invoked on several occasions in relation to environmental conservation and the utilisation of natural resources. However, how has Article XX been interpreted?

10.2.8.1 Tuna-Dolphin I

In *Tuna-Dolphin I*⁸⁷⁵ Mexico asked the Panel to examine US restrictions on the importation of tuna in the light of the relevant provisions of the GATT. On the basis of the US Marine Mammal Protection Act (MMPA), the importation of yellowfin tuna and light meat tuna products containing yellowfin tuna, were prohibited into the US until the importer was in a position to declare that no yellowfin tuna or yellowfin tuna products had been harvested with “purse-seine” nets in the Eastern Tropical Pacific Ocean by, *inter alia*, Mexican vessels. When such nets are used for tuna fishing, other oceanic creatures, such as dolphins, may also be unintentionally killed by the harvesting method. Mexico asked the Panel to find that the US embargo, which was based upon particular provisions of the MMPA, was inconsistent, *inter alia*, with the general principle of elimination of quantitative restrictions under GATT Article XI as well as being contrary to Article XIII.

The US on the other hand asked the Panel to reject Mexico’s complaints and argued that the measures taken on the basis of the MMPA were fully compatible with GATT’s obligations and if not, they

⁸⁷⁵ United States – Restrictions on Imports of Tuna. Report of the Panel (DS21/R – 39S/155) 3 September 1991. 30 ILM 1594 (1991). Cited as *Tuna-Dolphin I*.

would fall under Article XX. They furthermore argued that the measures argued for by them were necessary to protect the lives and health of dolphins, an exhaustible natural resource, for which no other alternative measure had been available. Eventually the Panel rejected all of the US arguments and came to the conclusion that the importation prohibition on certain yellowfin tuna and certain yellowfin tuna products ran contrary to Article XI(1) and could not be justified on the basis of either Article XX(b) or (g) as the US had argued. The US did not manage to justify the invocation of the Article in relation to the measures taken on the basis of the MMPA and the Panel rejected an extra territorial application of Article XX.⁸⁷⁶

10.2.8.2 Tuna-Dolphin II

In *Tuna-Dolphin II*, the European Economic Community (EEC), and, at a later stage, the Netherlands, after requesting consultation with the US, asked the Panel to examine whether certain restrictions on importation of tuna products into the US amounted to quantitative restrictions as prohibited by GATT. The US, on the other hand, *inter alia*, argued that the measures taken on the basis of the MMPA were within the scope of GATT Article XX. The US also introduced interesting arguments that had not been as clear in the *Tuna-Dolphin I*, or

“that the dispute was of great significance since it represented a challenge under the General Agreement to the ability of sovereign nations to adopt and enforce measures to safeguard resources in the global commons, in which all countries had a shared interest.”⁸⁷⁷

Moreover, that

“in becoming contracting parties to the General Agreement, countries did not agree to surrender their ability to take affective action to protect the environment, including the global commons. In drafting the General Agreement, the contracting parties created a set of obligations that permitted safeguarding the global environment, in particular through the provisions of Article XX. Their efforts and intent should be recognized as so permitting. Accordingly, the United States maintained that its measures to conserve a unique global commons resource, dolphins, were compatible with the General Agreement.”⁸⁷⁸

⁸⁷⁶ *Ibid.* pp. 1-40.

⁸⁷⁷ *Tuna-Dolphin II*, para. 3.9.

⁸⁷⁸ *Ibid.* para. 3.10.

Furthermore, the US maintained

“that the issues involved ... would become even more important over time, in light of the fact that environmental issues were increasingly recognized as global in nature, including transboundary effects on the global environment. More and more, actions in one part of the world would have significance for other parts of the world. In this respect, this dispute was not a typical trade dispute.”⁸⁷⁹

The Panel’s findings were in all major respects similar to its findings in *Tuna-Dolphin I*, and the two possible environmental exemptions of Article XX, could not be invoked. However, the case in general was better argued by both the parties and the Panel.

The EEC and the Netherlands argued that Article XX could not be invoked in the case since the natural resource was located outside of US jurisdiction.⁸⁸⁰ However, the US advocated for the extraterritorial applicability of their measures and based their arguments on the fact that Article XX had no territorial or jurisdictional limitations. Moreover, the US particularly referred to the fundamental obligation of states to ensure that activities within their jurisdiction or under their control would not cause damage to the environment of other states as well as in areas beyond national jurisdiction, *cf.* Principle 21 of the Stockholm Declaration, and claimed that their actions were consistent with the principle.⁸⁸¹

True to the standard narrow interpretation technique of Article XX⁸⁸² – which aims to protect the fundamental free trade principles of the GATT – the Panel however pointed out that Article XX had been construed previously without a distinction being made between whether the natural resource had been caught within or outside the jurisdiction of the party applying the restrictions, and thus the extra-territorial scope of the article was accepted.⁸⁸³ Furthermore, under general international law, states were free to regulate the conduct of their own nationals with regard to natural resources located outside their jurisdiction.⁸⁸⁴ Finally the Panel, in its concluding observations

⁸⁷⁹ *Ibid.* para. 3.11.

⁸⁸⁰ *Ibid.* see, *inter alia*, paras. 3.35-3.37

⁸⁸¹ See further, *ibid.* paras. 3.15-3.18.

⁸⁸² P. van den Bossche on the other hand argues that Article XX should be construed narrowly, but that the Appellate Body has developed a method of balancing the general rule and the exception. See further: van den Bossche 2008, p. 618.

⁸⁸³ See also, *ibid.* p. 619.

⁸⁸⁴ See further *Tuna-Dolphin II*, paras. 5.11-5.41.

stated “that the objective of sustainable development, which includes the protection and preservation of the environment, has been widely recognized by the contracting parties to the General Agreement.”⁸⁸⁵

10.2.9 The interpretation of Article XX

There are other interesting cases available under the WTO concerning clashes between the WTO/GATT’s free trade principles and environmental concerns, cases that have had more of a profound legal status, but the *Tuna-Dolphin* cases were not accepted by the contracting parties, as was the practice before the DSU came into being with the establishment of the WTO. Furthermore, as previously outlined, the Panel’s decisions are only binding on the contending parties, and thus would not bind further Panels or the new Appellate Body. Nonetheless the *Tuna-Dolphin* cases are usually considered to have been *the* cases that represented “the first tentative steps of the multi-lateral trading system to come to terms with protection of the environment”⁸⁸⁶ as Matsushita, Schoenbaum and Mavroidis argue.

However, as time has gone by, the interpretation of Article XX has developed.⁸⁸⁷ Both the *Reformulated Gasoline Case*⁸⁸⁸ and the *Shrimp-Turtle Case* are evidently significant, when questions relating to the conservation of biodiversity in nature are placed in the focus.

10.2.9.1 Reformulated Gasoline Case

In the *Reformulated Gasoline Case* the US appealed against the Panel Report arguing that the Panel had erred in its interpretation of Article XX(g) and its chapeau, when holding that the baseline establishment rules of the Gasoline Rule could not be justified. Venezuela and later on Brazil had initially brought the case before the Panel arguing that US implementation of its domestic legislation ran counter to GATT obligations (less favourable treatment than nationals). The Panel concluded that baseline establishment methods contained in Part 80 of Title 40 of the Code of Federal Regulations were not consistent with

⁸⁸⁵ *Ibid.* para. 5.42.

⁸⁸⁶ Matsushita/Schoenbaum/Mavroidis 2003, p. 451.

⁸⁸⁷ *Ibid.* p. 453, they point out that the *Tuna-Dolphin* cases would now meet the Article XX(g) test.

⁸⁸⁸ United States – Standards for Reformulated and Conventional Gasoline. AB-1996-1. Report of the Appellate Body. WT/DS2/AB/R, 29 April 1996. Cited as the *Reformulated Gasoline Case*.

Article III(4) of the GATT and could not be justified by Article XX.⁸⁸⁹ The US legislation in question was the Clean Air Act of 1990 (CAA) and a regulation enacted by the Environmental Protection Agency (EPA) pursuant to the CAA. The regulation's aim is to control toxic and other pollution caused by the combustion of gasoline manufactured in or imported into the US, referred to as *Regulation of Fuels and Fuel Additives – Standards for Reformulated and Conventional Gasoline*, Part 80 of Title 40 of the Code of Federal Regulations, commonly referred to as the Gasoline Rule. To ensure that pollution from gasoline combustion did not exceed 1990 levels, and that pollutants in major population centres were reduced, two gasoline programs were established by the CAA. The first concerned the setting up of ozone nonattainment areas, which consisted of nine large metropolitan areas and additional areas. All gasoline sold to consumers in the nonattainment areas needed to be reformulated and the sale of conventional gasoline was prohibited. Thus, reformulated gasoline needed to fulfil certain compositional requirements, and the oxygen content as well as the emission of volatile organic compounds (VOCs) and nitrogen oxides (NOx) was set particular limits. The second program concerned conventional gasoline that could be sold to consumers in other areas of the US. But to prevent pollutants extracted from the reformulated gasoline being dumped into the conventional one, the CAA required that conventional gasoline sold by domestic refiners, blenders and importers in the US should remain as clean as the 1990 baseline level.

The EPA was responsible for implementing both the programs that applied to gasoline sold by domestic refiners, blenders and importers. Compliance with the standard was measured by a comparison between the emissions from the conventional gasoline sold by domestic refiners, blenders and importers and emissions from a 1990 baseline. The EPA adopted the Gasoline Rule that relied upon the use of the 1990 baseline as a means of determining compliance with the CAA. The Gasoline Rule provided three methods for the establishment of the 1990 baseline. However, if importers could not establish a 1990 baseline, they became subject to a statutory baseline.⁸⁹⁰

⁸⁸⁹ *Ibid.* para. 8.1.

⁸⁹⁰ *The Reformulated Gasoline Case*, pp. 4-6.

The Appellate Body reinterpreted Article XX,⁸⁹¹ *inter alia*, in the light of whether the US measures related to the conservation of clean air as an exhaustible natural resource, as the Panel had done, but found that this had not been done to their liking as far as the interpretation method was concerned. They stated, *inter alia*,

“The chapeau of Article XX makes it clear that it is the “measures” which are to be examined under Article XX(g), and not the legal finding of “less favourable treatment.””⁸⁹²

After the Appellate Body had demonstrated that the baseline establishment rules of the Gasoline rule fell under the terms of Article XX(g), then the chapeau of Article XX was examined by applying the two-tiered method in order to find out whether the US measures were arbitrary and unjustifiably discriminating between the countries, and were disguising restrictions on international trade.⁸⁹³ The Appellate body stated that

“[t]here was more than one alternative course of action available to the [US] in promulgating regulations implementing the CAA. These included the imposition of statutory baselines without differentiation as between domestic and imported gasoline. This approach, if properly implemented, could have avoided any discrimination at all. Among the other options open to the [US] was to make available individual baselines to foreign refiners as well as domestic refiners. The [US] has put forward a series of reasons why either of these courses was not, in its view, realistically open to it and why, instead, it had to devise and apply the baseline establishment rules contained in the Gasoline Rule.

In explaining why individual baselines for foreign refiners had not been put in place, the [US] laid heavy stress upon the difficulties which the EPA would have had to face. These difficulties related to anticipated administrative problems that individual baselines for foreign refiners would have generated. ...”⁸⁹⁴

“... according to the [US], imported gasoline was relegated to the more exacting statutory baseline requirement because of ... difficulties of verification and enforcement. ... verification and enforcement of the Gasoline Rule’s requirements for imported gasoline are “much easier when the statutory baseline is used” and that there would be a “dramatic difference” in the burden of administering requirements for imported gasoline if individual baselines were allowed.”⁸⁹⁵

⁸⁹¹ See further, *ibid.* pp. 12-27.

⁸⁹² *Ibid.* p. 15.

⁸⁹³ *Ibid.* pp. 20-27.

⁸⁹⁴ *Ibid.* p. 23.

⁸⁹⁵ *Ibid.* p. 25.

Furthermore, as stated in the Appellate Body's Report

"... established techniques for checking, verification, assessment and enforcement of data relating to imported goods, techniques which in many contexts are accepted as adequate to permit international trade – trade between territorial sovereigns – to go on and grow. The [US] must have been aware that for these established techniques and procedures to work, cooperative arrangements with both foreign refiners and the foreign governments concerned would have been necessary and appropriate. [The Appellate Body maintained that] the EPA could have adapted, for purposes of establishing individual refinery baselines for foreign refiners, procedures for verification of information found in U.S. antidumping laws, [but the US] said that "in the absence of refinery cooperation and the possible absence of foreign government cooperation as well", it was unlikely that the EPA auditors would be able to conduct the on-site audit reviews necessary to establish even the overall quality of refineries' 1990 gasoline. From this statement, there arises a strong implication, it appears to the Appellate Body, that the [US] had not pursued the possibility of entering into cooperative arrangements with the governments of Venezuela and Brazil or, if it had, not to the point where it encountered governments that were unwilling to cooperate."⁸⁹⁶

Finally the Appellate Body concluded by stating that Article III(4) had been violated since

"the baseline establishment rules in the Gasoline Rule, in their application, constitute "unjustifiable discrimination" and a "disguised restriction on international trade ... that the baseline establishment rules, although within the terms of Article XX(g), are not entitled to the justifying protection afforded by Article XX as a whole."⁸⁹⁷

10.2.9.2 The Shrimp-Turtle Case

In many areas of the world, where shrimp trawling takes place, there is likelihood that the trawling will interfere with sea turtles and increase their mortality rate. Sea turtles are species that have been placed on Appendix I of the CITES, which lists species threatened with extinction. The Panel's decision in the *Shrimp-Turtle Case* was appealed to the Appellate Body by the US because that country was dissatisfied with the Panel's interpretation of Article XX as well as with the Panel's interpretation technique in general. The core of the dispute concerned the question of whether an importation ban could be founded on the harvesting methods that did not fulfil US stan-

⁸⁹⁶ *Ibid.* pp. 25-26.

⁸⁹⁷ *Ibid.* p. 27.

dards under the Endangered Species Act (ESA) and regulations issued pursuant to the ESA, Section 609, or the Turtle Excluder Device (TEDs) method. Section 609 required the use of approved TEDs at all times and in all areas where there was likelihood that shrimp trawling would interfere with sea turtles. The importation ban did not apply if the harvesting nations had acquired US certification for the harvesting method used and demonstrated that the method was compatible with US standards. In practice, however, the exemption from the import ban from non-certified countries remained unavailable. Furthermore, also included in Section 609, US authorities were to initiate negotiations for bilateral or multilateral agreements with other nations for the protection and conservation of sea turtles. These negotiations did not take place.

India, Malaysia, Pakistan and Thailand who had initiated the proceedings before the Panel argued, *inter alia*, that the importation ban imposed by the US violated GATT Article XI(1) and that Article XX was not applicable to the measures taken pursuant to Section 609. The Panel's findings were in their favour. The US appealed to the Appellate Body. In this case, the US argued, *inter alia*, that the Panel had erred in its interpretation of Article XX and the importation ban could be justified. The Appellate Body clarified several important issues in relation to the application of Article XX by outlining in some detail the proper interpretative analysis, applicable when evaluating whether the measures prescribed under Section 609, and how they were actually applied, constituted unjustifiable discrimination between the member states. From the Appellate Body's finding it is clear that the interpretative analysis is two-tiered. First, it must be demonstrated whether the conditions of Article XX(g) have been fulfilled.⁸⁹⁸ If not, then Article XX(b) is examined.⁸⁹⁹ Second, if the measures pass the first tier, Article XX(g) and or Article XX(b), then the chapeau of Article XX comes into play. The critical point then is whether the measure taken, results in arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or constitute a disguised restriction on international trade.⁹⁰⁰

⁸⁹⁸ *Shrimp-Turtle Case*, paras. 125-145.

⁸⁹⁹ *Ibid.* para. 146.

⁹⁰⁰ GATT Agreement, Article XX.

In the *Shrimp-Turtle Case* the Appellate Body, *inter alia*, stated

“... we address now the issue of whether the *application* of the [US] measure, although the measure itself falls within the terms of Article XX(g), nevertheless constitutes “a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail” or “a disguised restriction on international trade”. We address, in other words, whether the application of this measure constitutes an abuse or misuse of the provisional justification made available by Article XX(g).⁹⁰¹

Moreover, as the Appellate Body stated:

“The actual *application* of the measure, through the implementation of the 1996 Guidelines and the regulatory practice of administrators, *requires* other WTO Members to adopt a regulatory program that is not merely comparable, but rather *essentially the same*, as that applied to the [US] shrimp trawl vessels. Thus, the effect of the application of Section 609 is to establish a rigid and unbending standard by which [US] officials determine whether or not countries will be certified, thus granting or refusing other countries the right to export shrimp to the [US]. Other specific policies and measures that an exporting country may have adopted for the protection and conservation of sea turtles are not taken into account, in practice, by the administrators making the comparability determination.”⁹⁰²

Furthermore:

“... the [US] did not permit imports of shrimp harvested by commercial shrimp trawl vessels using TEDs comparable in effectiveness to those required in the [US] if those shrimp originated in water of countries not certified under Section 609. In other words, *shrimp caught using methods identical to those employed in the [US]* have been excluded from the [US] market solely because they have been caught in waters of countries that have not been certified by the [US]. The resulting situation is difficult to reconcile with the declared policy objective of protecting and conserving sea turtles. This suggests to us that this measure, in its application, is more concerned with effectively influencing WTO Members to adopt essentially the same comprehensive regulatory regime as that applied by the [US] to its domestic shrimp trawlers, even though many of those Members may be differently situated. We believe that discrimination results not only when countries in which the same conditions prevail are differently treated, but also when the application of the measure at issue does not allow for any inquiry into the appropriateness of the regulatory program for the conditions prevailing in those exporting countries.”⁹⁰³

⁹⁰¹ *Shrimp-Turtle Case*, para. 160.

⁹⁰² *Ibid.* para. 163.

⁹⁰³ *Ibid.* para. 165.

Thus, as the Appellate Body stated

“[w]e find, accordingly, that the [US] measure is applied in a manner which amounts to a means not just of “unjustifiable discrimination”, but also of “arbitrary discrimination” between countries where the same conditions prevail, contrary to the requirements of the chapeau of Article XX.”⁹⁰⁴

The Appellate Body finally concluded that the US measures qualified for provisional justification under Article XX(g) although they failed to meet the requirements of the article’s chapeau and could thus not be justified.⁹⁰⁵

10.2.9.3 Fulfilling the criteria of Article XX

In reality, it has turned out to be quite difficult for WTO member states seeking to invoke Article XX(b) and/or Article XX(g), to fulfil the criteria of the article’s chapeau. The burden of proof has turned out to be quite heavy. Thus they have been refrained from maintain their national environmental policies by restricting importations on the basis of their national policy and legislation. Even though the interpretation of Article XX has developed, and does take into account the environmental reality, particular species as well as air have now been accepted as exhaustible natural resources, and, to a certain extent, extraterritorial application of national legislation accepted, GATT free trade principles still limit the member states freedom to enact and apply their own environmental policies unless they follow carefully the guidance of the Appellate Body as regards the substance of such measures. Otherwise the measures and/or their application may run contrary to one or more free trade principles of the GATT.⁹⁰⁶

⁹⁰⁴ *Ibid.* para. 184.

⁹⁰⁵ *Ibid.* para. 187. See also Howse 2002, p. 491 *ff*, explaining further the *Shrimp-Turtle Case*.

⁹⁰⁶ There are other interesting cases available concerning the clash between free trade principles and whether GATT Article XX can be invoked but they will not be particularly covered here since they are only marginally relevant for the study. See *inter alia*: European Communities – Measures Concerning Meat and Meat Products (Hormones). AB-1997-4. Report of the Appellate Body. WT/DS26/AB/R, known as the *Hormone Case*, and European Communities – Measures Affecting Asbestos and Asbestos-Containing Products. AB-2000-11. Report of the Appellate Body. WT/DS135/AB/R, usually referred to as the *Asbestos Case*.

10.3 Further discussions and problematising

The above analysis indicates that WTO members have to accept two kinds of restrictions if they become members of the WTO. They become limited in their possibilities and in their sovereign right to: (a) protect their own environment in line with their own policy and legislation, and, (b) contribute to global environmental conservation by applying the same. The only way to escape this limitation is to fulfil the rather strict test of the Appellate Body when Article XX is construed.

But what is the default law of the WTO when viewed as a controlling program?

In chapter 7, the standard mode of a legal system, or the default of a legal system was explained as being the legal situation when no particular treaty or other international regulatory instruments are available in a given legal situation. But when it comes to free trade principles under the WTO umbrella the situation is somewhat twisted. The general principle under international law would be that states are perfectly free to restrict or ban importation of goods harmful to their environment. However, when a state becomes party to the WTO, it commits itself to allowing for free trade, including the importation of goods that could possibly harm its environment or of goods that have been processed by methods harmful to the environment, including the global environment. Under particular circumstances, the member states have, at the least theoretically, the chance to legally restrict importation by invoking GATT Article XX that is if they manage to fulfil the criteria that have been developed by the Appellate Body.

10.4 Concluding remarks

There is little doubt that the WTO legal framework and the opportunities it allows for individual WTO member states to maintain or to introduce progressive national environmental policy and regulation can at least theoretically have an effect on the possibilities to reach and maintain ecological sustainability and the realisation of the 2010 target. After all the WTO cooperation as such does not have the objective to maximizing ecological sustainability although it is familiar

with sustainable development policies and accepts environmental conservation as a necessary ingredient of that. In spite of the WTO's preamble and its acceptance of the importance of the objective of sustainable development the text of the GATT has not been altered. The WTO/GATT trading system is thus viewed by the study as an independent control system that maximizes the economic pillar of ecological sustainability and is thus not supporting the realisation of ecological sustainability or the 2010 target.

Part III Conclusions

11. Final conclusions

The study's perspective

The legal operationalisation of ecological sustainability and the realisation of the 2010 target are issues that concern all levels of legal control. At the same time, there is not apparently any international consensus or an agreement on the core of the concept of sustainable development, nor is ecological sustainability particularly supported by international law or the international legal order as such. On the other hand, the Brundtland report clearly expresses mankind's need of a sufficient environment. The legal operationalisation of sustainable development seems to a large extent to have become a self serving journey where all actors claim that they are operationalising the objective of sustainable development.

International law affecting the environment, and any law for that matter, should play an active role in solving the current ecological dilemma. My results indicate that international law affecting the environment and the international legal order as such are forming a part of the current dilemma, including the problem of deteriorating biodiversity, and is thus halting, or at least not supporting the realisation of ecological sustainability or the 2010 target. This study does not solve this dilemma nor does it suggest concrete legal changes. However, it provides opportunities to understand some of the factors that are contributing to this situation, and why the international legal order may seem to fail in this respect.

In the study's opening chapter, I presented its fundamental hypothesis that some overriding fundamental principles of international law are either counteracting or otherwise diminishing the possible realisation of ecological sustainability and the 2010 target. In that light I elaborated the study's three main objectives: First, a particular theoretical framework to provide the theory of the significance of the

default with a foundation; second, I evaluated and discussed some fundamental principles of the international legal order and international biodiversity law in the light of the theory, and third, I evaluated and discussed the realisation of ecological sustainability and the 2010 target in the light of the theory. The theoretical framework was structured by choosing and developing a particular background, reflected in chapters 1-7, and the testing took place basically in chapters 8-10.

Environmental law methodology

The study's methodological approach, an adapted version of ELM, inspired, *inter alia*, by Westerlund, Decleris and Eckhoff and Sundby, provided the study with not only the tool for working on its objectives, ELM furthermore makes me more able to draw particular final conclusions.

Due to the nature of biodiversity, and particularly ecological functions, the fundamental rule of systemic theory, or that any controlling system needs to be as advanced as the object being controlled, provided the study with an indispensable premise. When the international legal order is viewed as an overarching control system, containing several multi-levelled, interacting, and sometimes overlapping international and national legal systems (control programmes), questions relating to whether the order actually works for biodiversity in nature seem inevitable.

What I found out

The international legal order is decentralised in all main aspects. When the order is viewed and evaluated by relying upon ELM, it becomes clear that it is composed of several international legal orders. They do not always operate on the same level. What they have in common is that each of them can affect biodiversity and the realisation of ecological sustainability. Furthermore, due to the structure of the order, there seems to be an unavoidable risk of implementation deficit. This can actually take place twice: first, within the international legal order or when international objectives are legally opera-

tionalised and reflected in treaty provisions, and second, when the legal operationalisation of international objectives and treaty obligations takes place within national legal systems. I have argued that each deficit lessens the possibility of the realisation of ecological sustainability and the 2010 target.

As already the study's title indicates the concept of the significance of the default and default law have played a particular role in the study. The core of the theory is that the default law is the law when no other law overrides it. This is basically due to rule of law. The international legal order is ruled by law but not by other means. Thus, disparities, uncertainties and lack of particular rules increase the likelihood that the default principles of the international legal order will become active and take over. Thus the significance of the default becomes a ruling paradigm. As I have argued, the default principles that were theorised in this study do not particularly favour biodiversity in nature or the advancement of ecological sustainability, rather the opposite.

Although the importance of regulation in the field of international biodiversity law has been recognised, and environmental interests have been accepted as fundamental interests of states, the fundamentals of the international legal order have not been particularly adapted to the complexity of the biodiversity problem. To the contrary, international biodiversity law has been carved into a legal order that had already taken on a particular shape under very different social circumstances, and long before the limits of biological resources were understood. In other words, recent international law follows a pre-sustainability paradigm.

The international response has basically manifested itself in new treaties, many of which contain further preventative duties, *inter alia*, in the field of biodiversity conservation and management. Increased treaty making in the field of biodiversity has only marginally offered the necessary changes. The reasons, as discussed in this study, are several:

First, international biodiversity law may theoretically be applicable to all biodiversity. In fact, however, it seems that only the treaties that target particular endangered species and particular ecosystems have any real effects. If biodiversity as such, or its individual components, are not particularly regulated, their utilisation normally becomes sub-

ject to the default principles of the international legal system. None of these explicitly prohibits states from destroying their own biodiversity or the conditions that are necessary for biodiversity to thrive. I argue that due to rule of law and the way in which the default of international law operates, this degradation can be caused legally under the international legal order.

Second, international biodiversity law is to a large extent soft. The structures of many treaty provisions, such as those of the CBD, are usually in the form of balancing norms which pave the way for individual parties to choose which components are to be balanced in their implementation. Furthermore, treaty parties are increasingly creating new international law by passing decisions which are, *inter alia*, meant to complement individual treaty provisions, or to further and adjust particular management concepts. This kind of decision making has, to a certain extent, an unclear legal status. Information on whether national legislatures are aware of these decisions and whether they actually regard them as being of importance when national law is structured is not available.

Third, international biodiversity law, that is subject to two basic control systems, basically the UNCLOS for sea based biodiversity and the CBD and associated regimes for land based, is to the largest extent right and duty oriented. When I theorised these characteristics with the assistance of the action-reaction model of ELM, I concluded that they had not been properly adjusted to the environmental side of the model (the right side). One of the factors here is a lack of quality standards and similar environment-related standards, and another one a lack of clear limitations on particular land uses. Moreover I concluded that both of the control systems allowed for, at least to a certain extent, the balancing of economic and social interests and were thus reflecting a soft sustainability approach. Consequently international biodiversity law can only be assigned to the reactors side of the action-reaction model in a marginal sense.

Final conclusions

This study has given a considerable strength to the hypothesis set forth in the opening chapter. In my view, the magnitude of the implications is drastic. This is true for biodiversity but, and for the same reasons, for sustainable development as well and the legal operationalisation of ecological sustainability. Understanding Earth as a biosphere comes out of elementary natural science. Understanding the biosphere as a gigantic ecosystem is nothing but elementary ecology. By approaching the international legal order as an overarching system, basic systemic thinking, including Ashby's law on requisite variety, ELM's basics and Decleris' views, we can hear the warning bells toll for present legal systems.

The understanding of defaults in legal systems only increases the understanding of a critical sustainability situation for mankind, where law, as I have argued, so far counteracts sustainability. This study focuses on international law defaults analysed with respect to biodiversity, but it also presents the double implementation problems and possible deficits which in the end illustrates even more how the tragedy of the commons can continue to have effects into the future. Considering this, and accepting that good research generates more questions than it solves, it is easy to understand from this study that unless the default impacts are not fully regarded, compensated for, or mitigated, law will support unsustainability rather than the opposite.

This brings the core ELM issues to the front: How could law be made sustainable?

I have mentioned that there seems to be no international agreement on the core of the concept of sustainable development. On the other hand, any natural scientist can tell that humans are biological organisms and that the inevitable conclusion, also drawn in the Brundtland report, is that nature is the basis for everything else – if sustainability is to be achieved. It seems that one core issue relates to the development of a hard and high-levelled legal principle of sustainable development reflecting the understanding of that ecological sustainability is the necessary fundament for such development. If a principle of sustainability, understood this way, would take over as default law, also in international law, the prospects for mankind – and the biodiversity that mankind necessarily will remain dependent upon –

would be much less negative than what this study of international law and biodiversity as of now indicates.

Summary

The study bears the title: *The significance of the default. A study in environmental law methodology with emphasis on ecological sustainability and international biodiversity law*. The study's basic objectives are three. First, to develop a theory framework to underpin the theory of the significance of the default; second, to evaluate and discuss particular principles of the international legal order and international biodiversity law, and finally third, to evaluate and discuss the realisation of ecological sustainability and the 2010 biodiversity target in the light of the theory.

The legal operationalisation of ecological sustainability concerns all levels of legal control. The ensuring of full biodiversity is an indispensable component of ecological sustainability. At the same time, biodiversity losses continue to be a serious problem in many regions of the world. The international community has responded to this dilemma by strengthening international biodiversity law as well as agreeing upon a particular biodiversity target, the 2010 target. The aim is to reduce biodiversity losses at all levels by the year 2010.

From a legal point of view this seems unproblematic. When, however, the international legal order is viewed as an overarching control system, composed of several multi-levelled and interacting international and national legal systems (controlling programs), that run in parallels, questions relating to whether the order actually works for biodiversity seem inevitable.

On the basis of environmental law methodology (ELM) and in the light of the role of law in relation to rule of law, the study highlights the significance of the default of the international legal system by theorising particular fundamental principles that are part of the default and international biodiversity law.

The study consists of three parts. Part I, *Theoretical background*; Part II, *The significance of the default*, and Part III, *Conclusions*.

Part I commences with a non-legal analysis of biodiversity and the threats it is currently facing. It furthermore provides the study with its theoretical framework and premises in which adaptation of ELM plays a decisive role. Thus the study's methodological approach builds upon ELM that has been adapted to serve international law research. An important component of this adaptation lies in the introduction of new models, such as that of the double deficit, to serve this particular study.

On the basis of the theoretical framework provided in chapters 1-7, the core element of the significance of the default, the theory of the default significance, is presented. Its point of departure is two types of laws: first, the default law, or the situation that prevails when there is no enacted law available in a particular legal system, and second, quality standards which prescribe the environmental situation, or the environmental goal, that is to be reached and maintained, not in law but in the environment.

In order to understand how the default law functions, the rule of law and how law actually functions, need to be clear. If treaty law in a particular field is not available then the default law of the respective legal system, becomes relevant. The same thing happens if the treaty law is not clear enough, or if it consists of passive law or empty law.

International biodiversity law seldom involves quality standards, which, as is outlined in the study, prescribe the environmental situation. The main characteristic of international biodiversity law is its right and duty orientation and its soft and open ended character. This increases the likelihood that the default law will become effective which, as argued, does not particularly support ecological sustainability or the realisation of the 2010 target.

Part II of the study tests the significance of the default. The first step is to analyse two fundamental principles of international law, both of which are enshrined in Principle 2 of the Rio Declaration. The principles are: the sovereign right of states to utilise their natural resources, and second, their duty to prevent damage to the environment of other states or to areas beyond their own jurisdiction. The third principle, that of state responsibility, is also theorised since a breach of the general preventative duty may trigger the principle. The second step is to theorise international biodiversity law by applying the theory of the significance of the default. The bulk of international

biodiversity law is viewed by the study as constituting two basic control systems. Finally, chapter 10 theorises particular features of WTO/GATT law, also by relying upon the theory.

The last part of the study, Part III, that consists of one chapter, chapter 11, presents the study's final findings. They are basically that the effects of the international default are significant and thus diminishing the possible realisation of ecological sustainability and the 2010 biodiversity target.

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