Chapter 3

Biodiversity and Conservation

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The Importance of Biodiversity and the Current Challenges

The diversity of life within species, habitats, and ecosystems has provided a foundation for human civilizations throughout history and continues to support our contemporary social, economic, and industrial systems and structures. Apart from its intrinsic worth beyond anthropogenic concepts of value, this diversity is of critical importance to human welfare and its notional economic value is vast (Constanza *et al.* 1997). The economic value of biodiversity derives from the services provided to us, among many other things, in sinking carbon, purifying air and water, disposing of our waste, pollinating our crops; and providing food, medicines, and many other raw and naturally refined materials that we take for granted. There are many other indirect benefits. Thus the diversity of life also secures buffers against disease that threaten its own persistence and within a wider matrix operates as a balancing mechanism that secures the dynamic continuance of ecosystems and meta-life systems on Earth (Wilson 1992). Indeed, according to Lovelock, for so long as life has been flourishing on our planet, the Earth has been able to adapt to and withstand the worst of the perturbations that the solar system beyond our biosphere has deigned to inflict upon it (Lovelock 1995).

The importance of biodiversity for the persistence of life systems can often be lost in wider debates. Within the climate change debate discussions, by example, dialogues so often remain in the realm of emissions control or reduce into almost abstract terms such as "carbon" – a term that does not so easily connote the complexity of nature and the systems operating to protect life on Earth. As a result biodiversity protection receives less global attention and is a subsidiary priority to carbon emissions regulation (Gilbert 2010). Climate change is of course devastating to biodiversity (Pounds 1999; Walther *et al.* 2002; Opdam and Wascher 2004;

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Gregory *et al*. 2009) and even scientific approaches to measuring and monitoring the effects of climate change have been known to have a potentially devastating effect on species (Saraux *et al*. 2011). But climate change and biodiversity loss are closely related if not inextricably and irrevocably entangled. Indeed a vicious circle of reactions and feedbacks manifests when biodiversity begins to decline through the effects of rapid climate change, whereby both the processes of biodiversity decline and exacerbated climate change function together to create an increasing spiral of deleterious effects (Laurance and Williamson 2001; Hoegh-Guldberg *et al*. 2007). Thus the climate change debate cannot be divorced from the parallel discussions that relate to stemming the tide of one of the greatest extinction spasms the world has ever known. Moreover, when the position is clearly understood, no debate at any level in the world convened to seek to resolve complex issues relating to global development or even to resolve relentless waves of economic turbulence (as experienced at the time of writing in early 2012) can sensibly avoid integrating both climate change and biodiversity loss into strategic thinking. Unfortunately, this enlightened attitude is only rarely in evidence; the development of nature conservation law has often been a niche interest, and the subject has only recently become more mainstreamed into wider areas of governance and into wider dialogues.

The pace of development of international law is also slow and there have been very few developments in the last 20 years, consequently most conservation instruments were drafted prior to the more significant understanding of the relationship between biodiversity and climate change that we now have (Trouwborst 2009). Moreover, the challenges faced by biodiversity loss are complex, and effective regulatory systems need to reflect the sophistication of the complex systems that they seek to control (Johannsdottir *et al*. 2010; Underdal 2010). In addition, although conservation science has had significant influence over practical conservation, this has had little effect on international policy priorities (Robinson 2006), and the existing portfolio of instruments does not necessarily reflect conservation exigencies (Rands *et al*. 2010) as they are now understood or indeed the speed at which the problem of diminishing biodiversity is overtaking our ability to respond.

The slow development of international law and policy and its failure to keep pace with contemporary understanding of biodiversity preservation priorities is in sharp contrast to the rate of decline of biodiversity. Indeed, according to the official global institution dealing with biodiversity issues – UNEP – "the biodiversity loss is hundreds of times faster than previously in recorded history and the pace shows no indication of slowing down." This is evidenced by ecosystem loss (UNEP cites 35% of mangrove swamps and 20% of coral reefs as examples) and through extreme rates of species loss (between 150 and 200 species becoming extinct every 24 hours). This relentless rate of decline is caused by human action – habitat encroachment, changes of land use, overexploitation, trade and overuse of species, invasive species carried along human vectors, pollution, and, coming round again in the final part of the circle, climate change. Indeed, it is estimated that "approximately 20–30 per cent of plant and animal species assessed so far are likely to be at greater risk of extinction if increases in global average temperature exceed 1.5 to 2.5 Celsius" – a temperature rise that is now accepted as inevitable by most commentators (Millennium Ecosystem Assessment 2005; UNEP 2010).

Whereas extinction is a natural phenomenon, the current rate of decline is far greater than the replenishment rate of adaptation and evolution, and, therefore,

planetary homeostasis (Lovelock 1995) is challenged to the extreme. This challenge has the potential to affect the foundations of biodiversity on our planet in the same manner as previous events in the remote past when one of a number of rare "mass extinctions" occurred that irrevocably and drastically altered the course of the development of life on Earth. For humans the threat of such a mass extinction also represents a severe challenge to our cultures, societies, and economic structures since they are irretrievably embedded in and founded on the matrix and diversity of life on Earth.

The Initial Global Regulatory Response

The idea of creating an instrument designed to protect biological diversity for its own sake rather than endangered or threatened species and habitats – and linking such preservation firmly to climate change and development issues – is a relatively novel and recently developed concept. Prior to the signature of the Convention on Biological Diversity (CBD) in 1992, a number of international conventions and regional instruments had been negotiated which rarely cross-reference one another, only in a few cases deploy consistent and similar terminology, and otherwise have little relationship except where they occasionally overlap in jurisdictions. Instruments such as the Convention on the Conservation of Migratory Species of Wild Animals 1979 (Bonn) and the Convention on the Conservation of European Wildlife and Natural Habitats 1979 (Berne) cover, in part, similar subject matter and, because of their focus on protecting endangered and threatened species and habitats, require parallel and relatively similar legal approaches. And yet they use quite different language, have different levels of detail in provisions, and do not refer to each other. This failure to use consistent language can result in different legal interpretations, inconsistent implementation, and different approaches to protection. This may be best evidenced practically by examining the defenses to illegal taking of species described in Article 9 of Berne and Article II(5) of Bonn, which bear virtually no relationship to each other even where they deal with similar topics. Thus in Berne the defense dealing with reintroduction allows the taking of endangered species where it is for the purpose of "repopulation, reintroduction and for the necessary breeding" and the parallel provision in Bonn permits taking where it is for the purpose of "enhancing the propagation or survival of the affected species." There is also a relatively haphazard approach in the coverage of nature conservation issues by international law irrespective of the importance of the subject matter. The International Whaling Commission established by the International Convention for the Regulation of Whaling (1946) deals exclusively with cetacean species and there is no real parallel in other instruments dealing with the predicament of the many other key marine species that are on the brink of extinction. Moreover the Commission was established to maintain the "orderly development" of the whaling industry and, therefore, was not founded on anything like a contemporary conservation ethic and has been forced to adapt and transmute, through its long history, to deal more with wider and more familiar contemporary issues (Harrop 2003b). The approach to regulation within an instrument can also vary widely from convention to convention. The Convention on International Trade in Endangered Species of Wild Fauna and Flora 1973 (CITES), dealing with international trade, is a comprehensive, detailed, highly focused "lawyer's" legal instrument. It contains technical legal provisions that are largely capable of

being transmuted into national law with relative ease and with effective consistency throughout its member-states. Some hard-law instruments, and the CBD is certainly one (the detail will be examined later), are so vaguely drafted and hedge-bound with qualifications that the countries implementing them can operate under widely different policy, law, and interpretations of these conventions' provisions. Some other instruments have very simple, widely drafted, and often weak terms creating limited obligations. The Convention on Wetlands of International Importance, especially as Waterfowl Habitat (1971) (Ramsar) deals with an issue that is just as important as the concerns of CITES. Whereas trade is a key driver of extinction, and hence the importance of CITES, many of the world's most sensitive, biodiverse, and important habitats are wetlands, and that fact lends great importance to Ramsar. However, the convention only requires states to register – and thus substantially protect – one wetland (Article 2(4)), and there are even circumstances where that state can delete the potential site from the list (Article 4(2)). Other criticisms of Ramsar focus on the convention's generalist approach towards the protection of crucial havens of biodiversity in wetland areas, with little detailed provision for states to implement and enforce (de Klemm and Shine 1993).

No doubt there are many reasons for this disparate approach to the design of instruments aimed at biodiversity protection and for the seemingly ad hoc manner in which legislation has evolved. Certainly it may be difficult to engage the attention of politicians and opportunities may have to be grasped when available by the NGOs who occasionally manage to move them into action through their lobbying. However, bearing in mind the short event horizon of politicians (who may expect only a few years in office) and their unwillingness to risk losing votes by compromising the sovereignty of their nations to secure elusive benefits that may not be realizable for a number of generations into the future, it is a miracle that any international instruments to conserve nature exist at all.

One exceptional event which did capture the attention of politicians around the world was the United Nations Conference on Environment and Development in 1992. This conference certainly lived up to its alternate name as the "Earth Summit" in terms of its pageant, apparent visionary nature, and its ability to capture the attention of world leaders. Indeed, in time it may prove to have been the pinnacle of efforts at the global governance level to face up to and assume responsibility for the negative human impact on global life-supporting systems. The summit produced two hard-law instruments: the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity (CBD). Bearing in mind the relentless deforestation taking place particularly in tropical rainforests around the world, it had been hoped by some that a third legal instrument would also have resulted in dealing with the international protection of forests but this was not to be (McConnell 1996). Instead the Forest Principles were agreed, but these were embedded in a soft-law instrument whose name, Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests, made it abundantly clear that no nation would be bound to implement them.

Of course when we reach the pinnacle we have no choice but to descend. Although the Earth Summit, by agreeing to promulgate a convention dealing with climate change on the one hand and biodiversity protection on the other, seemed to have

fully appreciated the inseparable nature of the emissions problem and the biodiversity destruction challenge, it may be that since that date we have steadily followed a descending path. Moreover, in terms of the CBD, which is the central subject of this chapter, its wide-ranging and comprehensive but framework stipulations are necessarily lacking in detail and its 20-year history has now demonstrated that those provisions have not been built upon in the manner originally intended.

The rest of this chapter explores the road from Rio until it reaches Nagoya, where at the close of 2010, the CBD set out its strategy for the future. In so doing this analysis also evaluates the nature of this path and attempts to measure its effectiveness.

The Convention on Biological Diversity

The CBD dealt with such a wide range of subject matter that its text is a reflection of extensive compromise. However, it did seek to move on from the approach of previous negotiations of predecessor instruments, whereby texts were dominated by the perspective of "Northern" developed states (for example CITES is generally regarded as representing Northern consumer interests rather than "Southern" producer interests: Hutton and Dickson 2000) by reflecting all global interests and political philosophies through dealing directly with the "North–South" divide. The CBD does deal, to an extent, with aspects of equity between the developed and the then-developing world, requiring, *inter alia*, informed consent and equitable sharing arrangements prior to access to genetic resources. Nevertheless, whether the convention succeeded in reconciling the disparate parts of the globe is measurable only to a degree, and the different stances between biodiversity-range states (usually at the time developing countries) and consumers (the major developed countries) resulted in extensive compromise and contributed to the failure of the USA to ratify the convention – arguably one of the most serious obstacles to the CBD's effectiveness (McConnell 1996; Falkner 2001).

The CBD is a very different instrument from all that preceded it in the field of the conservation of nature. Its general terms could be said to embrace all the subject matter of the existing international legal portfolio and yet there is no reference to specific instruments in its text (beyond a general reference to "the law of the sea" in Article 22), nor was the opportunity taken to coordinate and corral the work of the already existing conservation institutions and convention activities. It was certainly a revolutionary instrument in many ways. Among others it contemplates the full relationship that humans have had with the natural world throughout history (see e.g. Article 8(j)); it does not focus on merely endangered species and habitats but on the whole matrix of species, habitats, and ecosystems, including the non-living environment in which they subsist (Article 2), and it seeks to engage with almost every aspect of international biodiversity conservation in the context of a developing world.

The objectives described in Article 1 comprise: "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." At first glance, the inclusion of such a wide-ranging and ostensibly contradictory set of objectives would appear to be courageous, especially if the convention succeeded in reconciling the

conflicts inherent in promoting use and conservation in one instrument. However, the width of the objectives reflected rather the existence of the conflict rather than its resolution and epitomized the type of compromise forced on the CBD text in negotiations between those who recognized the finite nature of the Earth's natural resources and those who sought development (McConnell 1996). The sheer scope of the objectives also forced the convention to display little detail in its text, but early commentators anticipated that this would be remedied by subsequent, subsidiary legal instruments (Sand 1993). In retrospect, since much of the scope of the CBD has not been dealt with in further international laws, the attempt to cover so many issues has resulted in a text that is spread too thin. Furthermore the CBD is imprecisely drafted and replete with obligations that have lost their edge through a profusion of qualifications littered throughout the text as a result of the many compromises made during the negotiation process (McConnell 1996). Consequently, states can accept its obligations without in many cases implementing laws and policies that have any real uniformity around the world (Harrop and Pritchard 2011) or by simply assuming that existing state laws more or less cover the CBD's scope. In this connection, whereas CITES is implemented by precise laws (in the EU through the current CITES regulation (EC 1996 and subsequent amendments and through resultant national laws), the CBD has been implemented less by new laws and more by policies that may or may not be backed up by normative measures (see for example the UK government's approach: DEFRA 2012).

The CBD contains a facility in Article 28 to create subsequent subsidiary instruments in the form of protocols, and early commentators assumed that the CBD would use this provision to develop the anticipated detailed laws that would build a solid structure over its framework (Glowka *et al.* 1994), but this process has been slow and only a small proportion of the CBD's provisions have been expanded into subsidiary instruments. Furthermore, some of these instruments duplicate existing provisions in the principal text, and may indeed perpetuate some of the damage done by qualifications negotiated into the CBD at its inception. The recently promulgated Nagoya Protocol (discussed later in this chapter) recites what is largely in place already in Articles 8(j), 10(c), and 15 in the parent convention and brings the number of CBD protocols to two (along with the Cartagena Protocol on Biosafety, which relates specifically to only one of the sub-clauses in Article 8) (Harrop 2011; on the Cartagena Protocol, see Chapter 6 in this volume).

Rather than work to produce comprehensive, detailed obligations in the form of protocols, and thereby fill in the many holes left in its framework of provisions, the CBD's recent strategy has veered towards setting voluntary targets for members. This trajectory suggests a softening rather than the anticipated hardening of the CBD's foundational text, and in order to appreciate the potential consequences of this softening approach an examination of both the inherent textual weaknesses of the CBD and the normative nature of the targets is required.

The CBD's Inherent Weaknesses

Instruments of international law are not coherent in quality and the CBD has been described as comprising of "'soft' diffuse obligations" (Braithwaite and Drahos 2000) that are not characteristic of clear law. This is inevitable in instances where

there are substantially different perspectives on the subject matter of an instrument – indeed international law can only be as strong as its creators – sovereign nation-states – wish it to be. However, in extreme cases this may result in a convention being reduced to a mere agreement to develop policy and maintain debate tantamount to a declaration of policy. In such circumstances, although such a result may be the best practical achievement (Abbott and Snidal 2000) the outcome may be disappointing in terms of the urgency of the subject matter, where, by example in the CBD's case, we are warned of dire consequences to us all if the rapid rate of biodiversity decline is not halted. However, where there is sufficient interest in a subject and where the international community is convinced that international rather than merely inward-facing national measures are essential, the community is perfectly capable of concluding a reasonably strong and coherent regime of law, at least from a positivist legal perspective. The WTO portfolio is a good example of such a regime and it was founded on general consensus that a strong regulatory system to facilitate open multilateral trade would expand and develop state economies and indeed would, according to the then Director-General of the WTO, "encourage and contribute to sustainable development, raise people's welfare, reduce poverty, and foster peace and stability" (WTO 2012).

Beyond its "soft" obligations, the CBD also reflects a low level of priority extended to biodiversity conservation by the international community and positively provides for other conventions to overrule it. Thus, Article 22 specifically subjugates its provisions to other international rights and obligations "except where the exercise of those rights and obligations would cause a serious damage or threat to biological diversity." The latter provision may appear to be a useful escape clause but, bearing in mind the complexity of ecosystems and the longitudinal studies often required to prove any hypothesis relating to ecosystem dynamics, it would be highly ineffective where evidence was required to prove an impending and "serious damage or threat to biological diversity" within an immediate and pragmatic dispute between two conflicting areas of international law (Glowka *et al.* 1994). By contrast, the provisions of the World Trade Organization texts function within a closed circle and contain no provisions to compromise the fulfillment of its clear and unequivocal objectives. Indeed the WTO is an international organization managing an "integrated and distinctive legal order" (Lamy 2006) and even operates its own dispute resolution mechanism where it embraces not just the evaluation of trade measures but also their relative impact on nature conservation. In doing so it involves neither NGOs nor international conservation governance institutions in its proceedings (see the *Shrimp–Turtle* case: WTO 1998). Moreover, in order to deal with the interface between trade and existing multilateral environmental agreements, rather than subjugating its authority to these MEAs, the WTO unilaterally assumed the jurisdiction to examine the relationship within its internal Committee on Trade and Environment (WTO 1994a, 1994b, 1994c) and within the remit of the Doha Declaration. Therefore, the WTO is willing to balance its relationship with other international law on its own terms, under control, and without compromising its independent and unassailable legal position. This is in sharp contrast to the CBD's approach to its relationship with other international laws.

Most of the articles of the CBD use terms that have insufficient clarity. Purported obligations may be construed, with little ingenuity, to be optional. Notably, clauses

lack the use of auxiliary verbs such as "shall" or "will," which in other agreements serve to reinforce obligations. Similarly, where the obligations are expressed clearly a secondary clause or phrase, such as "subject to national law," "subject to patent law," "as far as possible," effectively destroys both the impact of clarity and weakens the obligation. Whereas reasonable qualification is found in well-drafted and effective law it must remain in the realms of clear limits and it is usually possible to deduce these limits for such qualification from the context and by following ordinary rules of legal construction. In the CBD's context the qualifications go beyond this and can be susceptible to many interpretations. These "obligations" are not for the most part measurable in terms of enactment, implementation, or enforcement, and even subsidiary, soft material generated has been severely criticized for its lack of indicators to facilitate monitoring of impact (Walpole *et al.* 2009).

Article 8(j) deals with a crucial subject and was revolutionary at the time. It provides a useful example of the CBD's approach to drafting. The article endeavors to acknowledge, in terms of legal obligations, the crucial role of traditional practices in conservation, but is hampered from the very beginning of its text by a phrase that makes each member-state's obligations "subject to its national legislation." This is such a wide qualification that it is conceivable that national legislation already enacted that opposes generally accepted norms of human rights could frustrate any implementation of this sub-article. It is also peculiar that a supposed *hard*-law instrument should be expressed to be subject to the very state law that it necessarily must alter to achieve its objectives. Moreover, Article 8(j) also contains an obligation to *respect* traditional conservation practices. The word "respect" presents some unusual problems in terms of monitoring implementation of international law (Harrop 2003a). How, practically, could such an obligation be implemented and enforced in a coherent manner? The word "respect" may be understood on the streets but does not make a useful phrase in the statute books. Designing legislation to enforce "respect" poses extreme challenges even to the most imaginative of legal draftsmen and, if the idea of "respect" is left to be expanded upon by legislators, it is likely that implementation would not only be inconsistent but also incoherent.

It is also interesting to note that deficiencies in drafting and textual design can also be inherited by the CBD's offspring in the form of protocols. Thus the Nagoya Protocol, which in part extends and develops the framework encapsulated in Article 8(j), perpetuates the parent article's weaknesses by, on occasion, using the same language as deployed in the article (Harrop 2011).

The CBD's Regulatory Development

As has been stated already the CBD's strategy was anticipated, as evidenced by observations of experts at the outset, to be expanded through subsidiary protocols which would build substance on the framework provisions within the convention text. Had this happened in a substantial manner the lack of precision and abundant qualifications in the provisions of the CBD could easily have been overlooked as the optimum political achievement at the time of the Earth Summit and thus seen retrospectively as a work in progress. However, in the 20 years since its inception, two CBD protocols have been concluded and together they deal with the subject matter of one full clause and one sub-clause (Article 15 and Article 8(j)) in the

case of the Nagoya Protocol and one sub-clause (Article 8(h)) in the case of the Cartagena Protocol. This has hardly made a dent in the objectives of the CBD expressed in Article 1. Moreover, in terms of the priorities that we face today within the scope of the CBD, it could also be said that the needs to control the use of genetically modified organisms (the subject matter of the Cartagena Protocol) and the need to deal with equitable access and benefit sharing (dealt with in the Nagoya Protocol) are not subjects of the utmost priority when we are faced with rapidly diminishing biodiversity on a global scale and resultant critical feedbacks that are themselves exacerbating climate change. The subject matter of these protocols is not placed amongst the key priorities in relevant literature in the field of biodiversity conservation (Sutherland *et al.* 2009).

Although perhaps not the highest priorities in the face of issues causing biodiversity decline, the two protocols are necessarily steps forward in building the detail on the CBD's framework. The Cartagena Protocol is dealt with in Chapter 6 in this volume, but it is appropriate to briefly describe the Nagoya Protocol, promulgated late in 2010 (*Nagoya Protocol on Access to Genetic Resources* 2010).

The protocol focuses on the CBD's objective dealing with "the fair and equitable sharing of the benefits arising out of the utilization of genetic resources" and promotes the preservation of traditional conservation practices (thereby putting detail on the bones of Articles 8(j) and 10(c) in the parent convention as well as extending the provisions in Article 15 of the CBD dealing with "prior informed consent" and access to genetic resources). In terms of conservation value, fulfillment of these objectives should promote stakeholder involvement in conservation initiatives, create local incentives to conserve ecosystems and their components, and provide biodiversity benefits that accrue through preserving long-evolved traditional knowledge.

As has been already mentioned the protocol mirrors the qualities (in part including deficiencies) of the parent convention. This is clear not only in the textual approach but also in respect of specific terms. Thus the protocol, in similar manner to the CBD, subjects its terms to all other international law except where there is a "serious damage or threat to biological diversity."

The protocol deals with some aspects of criticism of the CBD. Thus the access to genetic resource and benefit-sharing provisions in the parent text applied between states but did not directly protect local people's rights in such resources nor guarantee that they would share in any benefits ensuing from the resources' exploitation. The protocol remedies this by directly referring to these local rights in a number of provisions and in a number of different ways. Nevertheless drafting weaknesses derived from the parent text are perpetuated and the new provisions may therefore be implemented in widely differing ways depending on the state's perspective on the matter (Harrop 2011).

A new and useful mechanism, established in Article 11 of the protocol, is the new *Access and Benefit-Sharing Clearing House*. This creates a focal point for sharing key information deriving from the operation of the protocol such as, *inter alia*, measures implementing the protocol text, access permits, model contractual clauses for access, and benefit sharing.

Finally, Article 18 of the Nagoya Protocol requires states to encourage *non-parties* to comply with its provisions. The stipulation provides a diplomatic approach to securing support from parties, such as the USA, which has not ratified the CBD or the Nagoya Protocol.

The CBD's Strategic Deployment of Targets

Since 2002 the CBD has followed a strategy that does not appear to have been envisaged at its inception but may be its only alternative, bearing in mind its legal weaknesses and the lack of willingness of the global community to assume further obligations. This strategy has transformed its identity, from a law-making instrument to an institution whereby it sets voluntary time-bound targets for its members. This approach is a growing trend in some areas of international policy and regulation and can be shown in some instances to have had effective impact (Jolly 2003).

The first set of targets developed by the CBD (endorsed at the World Summit on Sustainable Development in 2002) were designed to achieve a "significant reduction of the current rate of biodiversity at the global, regional, and national level" by 2010 (CBD 2002a). This principal target was heavily criticized for its lack of specificity and measurability.

The targets derived from CBD COP 6 Decision VI/26 (Strategic Plan for the Convention on Biological Diversity) and that decision expressly recognized that the implementation of the convention had been "impeded by many obstacles." These included specifically a "lack of political will"; "legal/juridical impediments"; "lack of appropriate policies and laws"; and a number of other factors described in the appendix to that decision. Bearing in mind these impediments and the clear understanding expressed in the appendix, it is notable that the targets deriving from the strategic plan still failed to create obligations to set precise, implementable objectives. Indeed, the targets did not improve the lack of precision in the mother text but instead perpetuated the problem and in some cases prescribed a lower standard. In other cases targets merely repeated, in paraphrase, existing CBD provisions. A number of commentators raised substantial concerns about the failings of these targets (see generally: Walpole *et al*. 2009; Harrop and Pritchard 2011), and indeed when the strategic plan of the CBD came to be renegotiated in 2010 the Convention's Director-General described the outcome of the targets set in 2002 as a "total disaster" (Vidal 2010).

It is useful to analyze some aspects of the targets in more detail. The umbrella "2010 Biodiversity Target" resembled more a policy aspiration than an instrument designed to fulfill the objectives of a legal instrument. It lacked specificity, and since it described a global aspiration it provided no guidance for implementation by individual states, since biodiversity, species, and ecosystems do not respect boundaries and in many cases a state could not determine how its individual actions would have supported the target. Indeed, apart from its setting of a deadline (2010), it added little if anything to the already generalized and heavily qualified obligations within the parent convention.

In subsequent decisions of the CBD (COP 7 Decision VII/30 and COP 8 Decision VIII/15) further work was done to elaborate the general target through subsidiary goals. However, these subsidiary targets provided little more detail (and in many cases less detail) than had already been set out in the CBD text. For example: targets 2:1 and 2:2 (see CBD 2002b) aimed to "restore, maintain, or reduce the decline of population species" and to improve the status "of threatened species." However, both of these aspirations are already present in Article 8(f). This article similarly describes the restoration of "degraded ecosystems" and the promotion of "the

recovery of threatened species, *inter alia*, through the development and implementation of plans and management strategies." The article is more specific than the target, however, in identifying that planning instruments should also be implemented. Other sub-targets are expressed with less precision than in the original text of the parent convention. Thus targets 9:1 and 9:2, dealing with the goal to "maintain sociocultural diversity of indigenous and local communities," sets out summaries of rather more complex and thus more normatively challenging requirements in a number of articles in the CBD including: Article 8(j) (preserving traditional knowledge and benefit sharing), Article 10(c) (protection of customary use of biological resources), and Article 15 (access to genetic resources). Sub-target 4:3 appears to duplicate, in albeit extremely general terms, other international law. Its aim is for "no species of wild flora or fauna [to be] endangered by international trade." The subject of wildlife trade is not specifically dealt with in the CBD text but is dealt with extensively and in much more detail, as already indicated, in the text of CITES. And yet the rather trite statement in the sub-target does not acknowledge the existence of CITES. Bearing in mind the need to create coherent strategies across conservation conventions in order to strongly respond to the challenges we face (Heller and Zavaleta 2009), this omission was certainly disappointing.

Despite the time and resources allocated to this elaboration of the basic 2010 CBD target, the convention was forced to acknowledge that few countries succeeded in establishing national targets "and even fewer have had time to implement them" (UNEP-CBD 2009). In response to this poor performance, the CBD's strategic plan was drastically revised in Nagoya, Japan at the end of 2010 (CBD 2011). The negotiations produced the Aichi Biodiversity Targets (CBD 2011), which are more sophisticated than the predecessor targets and have been in part designed in response to the extensive criticism of the previous CBD goals (Harrop 2011; Harrop and Pritchard 2011). There is now much more precision in the text of the targets but some of the problems remain. Thus the percentages of the Earth that are to be protected appear to be arbitrary and do not assist selection of crucial habitats nor do they set priorities in regions or between habitats. Again, because these percentages are set at the global level they give little guidance to individual states about how a coordinated and thus more effective approach can be made. Similarly some of the detailed targets continue to duplicate the text within the CBD (Harrop 2011). Nevertheless there are many improvements and time is needed for the CBD to develop the detail and to maintain some sort of pressure on states to engage with detailed design. However, the most difficult challenge to the CBD may be its diminishing authority to drive this process.

The CBD's Identity and the Direction of International Biodiversity Preservation Law

The first paragraph of the CBD's new Strategic Plan seeks to

> promote effective implementation of the Convention through a strategic approach comprising a shared vision, a mission, strategic goals and targets that will inspire broad-based action by all Parties and stakeholders.

The crucial word that sets the scene is "inspire." This describes the transformed identity of the CBD, not so much as a normative instrument of international law, which may be implemented into law and policy and enforced through pragmatic governance measures, but as a visionary institution from which inspiration may be gained. Although commentators (Abbott and Snidal 2000) have observed how multilateral environmental objectives have been implemented through a varied level of instruments through hard law to soft policy, the CBD appears to have gone one step further. The softening trajectory (Harrop and Pritchard 2011) of the CBD from a hard-law instrument to a mere political inspirer of policy, promoting a vision through rousing rhetoric, appears to be sealed by the new strategic plan and its targets. Questions about the nature of international law and how it may be categorized philosophically (see, e.g., Weil 1983 and Koskenniemi and Leino 2002) have been asked for some time but in this instance a new phenomenon is occurring which may alter the direction of the discourse. We are already aware that the text of the CBD is deficient in its normative quality, and in this regard, as Weil points out, "the capacity of the international legal order to attain the objectives it was set up for will largely depend on the quality of its constituent norms" (Weil 1983). However within the text of the strategic plan there is a distinct avoidance of legal requirements – indeed the plan patently evades the imposition of obligations. Thus paragraph 3, which closes the door firmly on the plan's potential normative function, simply "urges" parties to adhere to it and consequently leaves the success of the convention to both hope and chance in the face of more immediate political expediencies.

Sections V and VI of the Annex to the Strategic Plan specifically focus on implementation and support mechanisms for the plan and it is here that we must search for remnants of normative capacity. This part of the plan responds to criticism of the previous targets whereby it was argued that for targets to function effectively they need to be supported by a "suite of tools" including, among others, specific economic and legal components (Cawardine *et al.* 2009). Section 13 describes the plan as a "flexible framework for the establishment of national and regional targets and national biodiversity strategies" but falls short of prescribing legal obligations. However, the plan does seek to raise the profile of the predicament and importance of biodiversity in a dynamic manner, thus Section 16 seeks to broaden political support by "working to ensure that Heads of State and Government and the parliamentarians of all Parties understand the value of biodiversity and ecosystem services." There are also a number of references to the crucial need to *mainstream* biodiversity issues throughout national, regional, and global governance mechanisms. In tune with the rest of the plan, the language used is aspirational and not prescriptive.

The CBD, coupled with its subsidiary agreements and strategic documents, remains legally weak and imposes largely diffuse obligations on its parties. In leading the planet to this state of affairs the global community may well be inhibited by a short political event horizon that pushes these fundamental problems onto the burden of future generations; however, there are occasional glimmers of an international conscience and within the new strategic plan an understanding of pressing needs becomes discernible.

The CBD's history describes a steady download slide, not just from hard to soft law but also on to a third category whereby, through the expression of mere aspiration, it is becoming little more than a source of exhortation, inspiration, and vision.

Nevertheless, these qualities comprise a component of leadership and, in agreeing to the relevant terms within the strategic plan, there is a suggestion that the international community recognizes that such leadership is required. However, bearing in mind the current dire need for a strong global response to the relentless decline and dilution of biodiversity, much more is required to put inspiration into practice.

There are alternate governance models that may be appropriate, and the global community has to date accepted comparatively strong legal authority in other areas of global regulation such as in the multilateral trade regime, where the operations of a wide-ranging portfolio of agreements and their implementation of them is overseen by a single entity. Thus the CBD's targets could be in part delegated to other, relevant MEAs who would then work to the CBD's guidance within their special areas of expertise (trade, migratory species, marine conservation, wetland conservation, etc.) to fulfill them as priorities – adjusting their own strategies accordingly to correspond with a concerted and coordinated approach. There also appear to be the rudiments of recognition of the need for a unified international approach to conservation in the CBD strategic plan. Section 17 of its Annex seeks to promote partnerships and such relationships are expressed to include *other conventions*. This echoes and strengthens aspects of the provisions in the parent text of the strategic plan, which, among others, includes a statement that the plan "represents a useful flexible framework that is relevant to all biodiversity-related conventions." In addition, paragraph 17(c) of the principal text recognizes the need to create a "coherent implementation of biodiversity-related conventions and agreements."

The other aspect of leadership, deriving from the model described, involves overseeing national implementation. This requires appropriate links and networks. In this respect the CBD already links into all of its member-states very effectively through its Clearing House Mechanism established pursuant to CBD Article 18(3), whereby it operates as the center for the coordination and communication of all national actions plans and strategies that operate in response to the CBD's strategic plan. Indeed, this is one area where the CBD's provisions may be regarded as operating well. Nevertheless, without coordinated efforts to build on the effectiveness of its other provisions – which itself will require strong leadership – the CBD may ultimately be remembered only for its efficiency in gathering information to simply observe – rather than prevent – the relentless decline of biodiversity.

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