Introduction

**Robert V. Percival, Jolene Lin and
William Piermattei**

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From 30 June to 5 July 2012, the International Union for Conservation of Nature (IUCN) Academy of Environmental Law held its 10th Annual Colloquium at the University of Maryland Francis King Carey School of Law. The Colloquium was held just a week after the conclusion of the once-a-decade UN Conference on Sustainable Development, also known as the 'Rio+20' earth summit. At the Colloquium, 250 environmental law experts from 30 countries on six continents focused on the future of global environmental law in the wake of the Rio+20 gathering. This provided a unique opportunity for top scholars to discuss future directions for global environmental law and policy.

The Colloquium theme was broadly designed to stimulate presentations touching on all aspects of environmental law. It spawned more than 150 presentations spanning the full spectrum of topics in this rapidly growing field, as reflected in this publication. This book is organized into three parts: environmental governance frameworks, specific environmental challenges and assessment of various governance models.

ENVIRONMENTAL GOVERNANCE FRAMEWORKS

The first section addresses different frameworks or governing concepts that can be employed to address environmental problems. The volume begins with a chapter from Fulton, former General Counsel of the U.S. Environmental Protection Agency (EPA), and EPA attorney Wolfson that addresses the attributes needed to create effective environmental governance on a national level. These include clear and enforceable environmental standards, meaningful public engagement, government accountability and integrity, coordination between different levels of government and fair and

impartial dispute resolution. Fulton and Wolfson conclude that implementation of these elements on a national level can provide the institutions needed for international environmental cooperation and governance. The authors then provide recommendations for working within existing international institutions to promote the development of robust national environmental governance enabling nations to become true partners in sharing information and developing global initiatives.

Next, May and Daly analyse the 'outcome document' from the Rio+20 conference. Called *The Future We Want*, this document stresses the importance of providing citizens with the rights to have access to environmental information and to participate in environmental decision-making and dispute resolution. May and Daly assert that providing constitutional guarantees for these rights to information, participation and adjudication will help ensure an environmentally sustainable future. They maintain that constitutional guarantees of access to information, citizen participation in decision-making and access to dispute resolution are all vital rights already recognized by many international instruments and multilateral environmental agreements. The authors survey numerous countries and note the increasing acceptance of these procedural rights as crucial elements of environmental governance. They conclude that, not only do these procedural rights improve environmental governance, but they also support the rule of law, institutional development and competence, increased public participation in governance, government accountability and better vertical integration of local, state and federal government institutions. In sum, protecting procedural rights strengthens the elements that Fulton and Wolfson identify as necessary to strengthen environmental governance. May and Daly provide one vision for achieving the Fulton and Wolfson blueprint.

Moving from general concepts to specific application, Manzano analyses the inclusion of the 'rights of nature' in the Ecuadorian Constitution. One might assume that including the rights of nature in the Constitution would strengthen environmental governance and improve environmental outcomes, but Manzano comes to a very different conclusion. He argues that equating the 'rights of nature' with the 'rights of man' ultimately leads to the subjugation of environmental rights to economic rights that invariably trump the rights of nature. In the tradition of Western constitutional democracy, rights are typically held by individuals and in this tradition a rights-based approach works when those rights are tethered to individual responsibility. Manzano maintains that providing rights to nature has been shown in several court cases not to be protective at all, but rather provides only the veneer of environmental protection

while ultimately allowing the judiciary to find that the scales of justice invariably tip toward protecting people, not ecosystems.

The last chapter in this section analyses the importance of public participation in Chinese environmental governance. Zhao traces the development of public participation in China over the past two decades with the rise of NGOs and the uniquely Chinese entity the ‘GONGO’ or Government Organized Non-Government Organization. Zhao asserts the importance of increased public participation in environmental governance has helped move Chinese local government toward enforcing and realizing the sustainable development goals set by the national government. One example is the Institute of Public and Environmental Affairs (IPE), which promotes public access to environmental information through publishing databases of water and air pollution. Working with the Natural Resources Defense Council, the IPE also evaluates and ranks how well 113 municipal governments in China are implementing the country’s Open Information Act. This work has led local Chinese governments to work with IPE to improve their ranking and to inform citizens of how to use information to make their voices stronger in the public realm. However, Zhao notes that many NGOs are not registered and thus are vulnerable to government crackdowns that ultimately limit their effectiveness. Zhao concludes that GONGOs have been more effective in China because they have the imprimatur of the government and therefore have better access to information and more autonomy to operate.

In sum, the first part of the volume outlines prerequisites for effective environmental governance (Fulton and Wolf), how to promote them through constitutional mechanisms (May and Daly and Manzano) and how one of the prerequisites (public participation) has affected environmental results in China. Ultimately, the institutions and laws needed for environmental governance will depend on local and regional needs. What are the environmental challenges to be addressed in specific national and regional contexts?

ENVIRONMENTAL CHALLENGES: A WORLD TOUR

The next section addresses the myriad of environmental challenges facing the world today. The survey begins in the Middle East with the most basic element required for life – water. Kornfeld discusses the looming problem of water deficit in the Middle East, focusing on two water systems: the Tigris-Euphrates and the watershed encompassing Israel and Palestine. Water is in increasingly short supply in the Middle East and climate change is likely to exacerbate an already difficult situation.

Courts have found access to potable water to be a right of the people, but consumption is outpacing supply in this volatile region. In both case studies, Kornfeld concludes that solutions to the water scarcity problem will require cooperation among Palestine and Israel as well as Turkey, Syria and Iraq. Ultimately, these countries will need to dramatically alter their water use, particularly in agriculture, which consumes nearly 80 per cent of the region's water.

Next we move to food security in Ethiopia. Bekele Tekle addresses the importance of agriculture in Ethiopia where 80 per cent of its citizens farm. Under Ethiopian law, land and natural resources are owned by the people collectively and the government has the power to lease land. Foreign agriculture exporters have moved in and obtained large land concessions for the export market, often at the expense of Ethiopian farmers and their historical claims to their ancestors' lands. Further exacerbating the displacement of up to 1.5 million traditional Ethiopian farmers are the land lease terms, which include surface and subsurface water rights that allow leases to monopolize water. While these lease agreements incorporate environmental laws and regulations, there is little follow-up to ensure adherence to environmental standards, Environmental Impact Assessment (EIA) requirements are often waived and there is no avenue for public participation or consultation. As arable land and water resources are increasingly monopolized by exporters, local food production suffers, which destabilizes food security and environmental safeguards simultaneously.

Telesetsky's chapter focuses on a different type of food security: ocean governance. Telesetsky points out that the world's oceans are over-fished with fishing fleets often bringing in ten times their catch limits. Put simply, illegal fishing is rampant and current governing instruments are inadequate. Telesetsky notes that the 'patchwork' of international, multi-lateral and bilateral agreements divide authority among many national actors who often do not enforce these agreements against private actors. Despite institutional inadequacy to address rapidly diminishing ocean fisheries, no institutional changes came out of Rio +20. Telesetsky summarized the Rio +20 *The Future We Want* outcome document as 'The Status Quo We Have'. Telesetsky proposes a new ocean governance model, outside of the UN framework, focused on increased communication between various state, regional and international regulatory bodies that actively engage the fishing industry to accept and support enforcement because it is in their long-term economic self-interest to do so.

Shifting from the conservation of food and water to the conservation of species, Williams, Kennedy and Craig focus on Australian biodiversity,

specifically the tension between local economic self-interest and national laws protecting threatened species. Despite laws passed in 1995 and 1999 to protect threatened species, Australia's threatened species list continues to grow, in part because many of the threatened species' habitats are not protected. The authors assert that Australian threatened species laws are often 'lost in translation' when applied (or not) at the local level because states control natural resource and land use decisions. As an example, the authors analyse the plight of the Giant Barred frog, an endangered species whose habitat watershed includes an old antimony mine that is slated to be re-opened despite the fact that no studies have analysed the impact of re-opening this mine. Instead, the Australian government is currently 'streamlining' and 'removing red tape' from environmental assessments, essentially fast-tracking development. The authors show that the Australian government's quest to remove legal duplication and redundancies essentially eliminates the checks and balances needed to assure that environmental impacts are adequately addressed.

Moving from mining to oil extraction, Ako analyses Nigeria's natural resource laws governing oil production. Ako persuasively argues that the structure of Nigerian law is a key driver of conflict in the Niger delta, particularly natural resource laws protecting oil companies at the expense of indigenous people. According to Nigerian law, oil resources belong to the state, which then contracts with oil companies to develop the resources (similar to the Ethiopian land use model Bekele Tekle discussed earlier). Ako asserts that the EIA process, the primary means of public involvement, is not effective and does not allow for meaningful public participation. Inadequate or unavailable remedies further exacerbate conflict. Finally, current government programmes are too costly and cannot be part of long-term solutions to the conflict between indigenous people and oil development. However, Ako notes several recent developments offer a measure of hope. The return to constitutional governance means that litigants can now have their disputes resolved by impartial courts rather than by the government-controlled Land Use Allocation Committee. Second, Nigeria's 2009 reform of procedural rules removes standing impediments to the initiation of public interest suits. Finally, the United Nations Indigenous People's Partnership also has increased indigenous participation in resolving disputes.

Parrod moves the discussion from environmental justice in the Niger delta to global environmental justice and climate change. Parrod focuses on the Kyoto Protocol Clean Development Mechanism (CDM) that assists developing countries to offset developed nations' greenhouse gas (GHG) emissions while supporting sustainable development through market-based incentives. However, because the CDM is a market-based

programme, the least developed countries are at a competitive disadvantage as the programme favours countries with strong financial and governmental institutions. The vast majority of the nearly 5000 CDM projects are concentrated in the most developed of developing countries: China, India and Brazil. Poorer countries are often left with projects of questionable value. These structural problems with the CDM are exacerbated by weak procedural mechanisms. 'Sustainable development' (the purported benefits the host country receives) is not defined. EIAs lack adequate guidelines, and provide no guarantees of public involvement. Parrod provides several recommendations to address these problems, including: developing sustainable development criteria, creating an EIA procedure that guarantees public participation, providing incentives for smaller projects in the least developed countries and reducing credits for larger projects by linking carbon reduction credits to the cost of abatement.

The challenges we face in global environmental governance are widely dispersed, but typically coalesce around providing the necessities (water, food, energy) to a growing population of consumers. These challenges are being addressed in a myriad of ways around the world with varying degrees of success. The next section of the book focuses on different governance models at the international, national and local levels.

GOVERNANCE MODELS: LOOKING TO THE FUTURE

Nicola Lugaresi begins with a provocative look at the concept of sustainable development in environmental governance at the international, regional and national level using the regulation of water as a case study. Lugaresi has found that the term 'sustainable development' is just that, a term that is alternatively used by 'force of habit' in international instruments, or as a vague label in Italian law, or as a hybrid goal and parameter to promote economic and social progress in the European Union (EU). On the international level, Lugaresi analyses sustainable development in the context of Rio +20 and concludes that the move toward 'sustainable development' has failed to lead to environmental governance changes. Rather, sustainable development has been used as a concept through which aspirational statements are restated, re-recognized and reaffirmed leading to nothing concrete. In Italy, the term is 'an empty box' without implementation mechanisms. The EU has been most effective in linking sustainable development to environmental governance through market-based mechanisms and developing metrics to

measure progress. Lugaresi concludes that in order for 'sustainable development' to become more than a conceptual aspiration, it must evolve into more specific principles of international law, constitutional law and administrative law.

Next, Chen and Maes analyse climate change governance in China, focusing on two mechanisms: cap and trade and a carbon tax. The authors note that a carbon tax system is a much simpler, more straightforward and less costly instrument, but that it is not linked to any particular level of environmental protection. Instead, China has developed a 'cap and trade' emissions control regimen. China has already identified industrial sector participants, established a registry system and public access to trading information, chosen the approach for calculating carbon emissions, developed monitoring and reporting requirements and verification procedures and established a trading platform. Though difficult to implement, a cap and trade system is linked directly to a targeted level of environmental protection, unlike a carbon tax. China's cap and trade system also provides greater opportunity for individuals and companies to participate in the process unlike the carbon tax system where government dominates by setting tax rates. The free market nature of cap and trade diminishes heavy-handed government involvement and provides participants access to dispute resolution through the administrative process as well as contract law. Finally, carbon trading requires public access to information about emissions and transactions and thus provides more transparency. The authors conclude that China should continue to develop its cap and trade system and delay implementing a carbon tax as such a tax could distort this nascent market.

Shifting from national climate change policy to local governance, Lin-Heng addresses the necessary components for effective environmental management of cities, drawing on case studies primarily from Southeast Asian cities. Cities differ markedly in size, stage of evolution, wealth and locale, which affect environmental priorities and policies. Echoing the requirements for effective environmental governance that Fulton and Wolfson analysed at the beginning of the book, Lin-Heng outlines the primary components for effective urban environmental management: sound institutions and administration, comprehensive land use planning, physical infrastructure to provide basic services and effective enforcement. Using Singapore as an example, Lin-Heng details city development decisions, the governing institutions involved, and the criteria used to evaluate development. Lin-Heng notes the importance of public participation in land use decisions particularly because they shape the communities where people live. One example of enforcement through public disclosure is Indonesia's PROPER Prokasih programme where

industries responsible for water pollution were consulted, agreed to sign voluntary non-binding agreements to reduce pollution and then were scored on their achievements with the results published by the government. This programme led to a 44 per cent decrease in water pollution emissions. Unfortunately, because there were weak institutions developed to support and continue these efforts, the gains in pollution control were lost with political change.

From the management of cities, the book moves on to Daya-Winterbottom's analysis of New Zealand's Resource Management Act (RMA) of 1991, the principle statute governing New Zealand's environment. The primary purpose of this law is to promote the 'sustainable management' of natural resources by protecting biodiversity, maintaining water quality and recognizing Maori indigenous interests. Scholarly critique of the RMA has varied widely, but generally scholars agree that the RMA has fallen short of expectations. The RMA has had limited success in protecting biodiversity with most advances in land preservation coming from voluntary open-space covenants arising out of the Queen Elizabeth the Second National Trust Act of 1977. The RMA has had little success managing water quality due to a sluggish response to water quality threats. There has been more success at the local level, such as the Waikato region, which implemented mandatory best management practices and a successful nutrient cap and trade programme. The Maori have been included in the Waikato River Authority as well as the recently created Whanganui River Agreement that are tasked with improving water quality in their respective watersheds. While the RMA must consider Maori interests, Daya-Winterbottom notes that those interests are balanced against many other competing interests and, just as in the case of the 'rights of nature' discussed by Manzano, the scales of justice inevitably may tip toward majority interests and development.

The book next addresses ecosystem service payments in Brazil. Nusdeo and Campos analyse ecosystem service payments as an efficient and equitable model where private parties or public entities pay for environmental services such as carbon sequestration, biodiversity or watershed protection. Ecosystem services can be introduced into existing markets, such as carbon trading, or can be a public-private partnership where governments pay for environmental stewardship. Ecosystem service payments can provide a significant financial inducement to preserve rich ecosystems and also to help protect traditional customs and land use practices. The authors review two case studies of ecosystem payments in Brazil: the Mata Atlantica watershed project and an Amazon rainforest project. In the Mata Atlantica project, the ecosystem service payments are focused on landowners who employ best management practices to

protect the watershed. The Amazon project *Bolsa Floresta*, is a public-private partnership that pays families not to increase their cultivated area. It provides investments in community health, education, transportation and communication projects, and assists with commercialization of sustainably harvested products. Nusdeo and Campos conclude that both of the case studies present evidence that the projects are efficient (improved environmental results at low cost) and equitable (benefit the poor and promote sustainable development).

Schiano di Pepe moves the book from national to regional governance, analysing the European Union (EU) climate change governance efforts since the 1997 Kyoto Protocol. Schiano di Pepe asserts that the Kyoto Protocol was a significant achievement in multilateral environmental governance, reinforcing substantive goals (pledges to reduce greenhouse gases) and the differentiated responsibilities of developed and developing nations. Unfortunately, states did not enforce their Kyoto commitments with policies designed to achieve them and by the 2009 Copenhagen Accord, the world moved toward a unilateral approach of national pledges to reduce GHG emissions. Schiano di Pepe points out that the EU has been at the forefront of multilateral climate change governance, analysing European Parliament's 2009 'effort sharing' decision which set differentiated GHG reduction targets for EU members and extended the EU's emissions cap and trade system to new industries. An EU Court of Justice decision recently extended emission trading to non-EU entities, specifically the airline industry flying to and from the EU. These EU measures are forcing countries back to multilateral climate change negotiations.

The book concludes with a look toward the future of global environmental governance and the practicality of creating a World Environment Organisation (WEO). Goeteyn begins by analysing numerous scholarly proposals for a centralized, international WEO. The proposals coalesce around the premise that the United Nations Environment Programme (UNEP) is ineffective because it is under-funded, lacks authority and its decision-making is cumbersome and slow. Goeteyn analyses the hurdles to create a WEO within the UN per articles 57 and 63 of the UN charter. First, a multilateral treaty or 'constitution' must establish the organisation and then a relationship agreement with the UN must be established. Goeteyn then highlights the proposed functions of a WEO and concludes that it would not necessarily improve existing UN environmental functions. For example, currently, UNEP decisions are effectively vetted and potentially more efficient than adopting decisions by a specialised agency. Nor, under the existing legal structure, could the WEO be

expected to coordinate multilateral environmental agreements or capacity building efforts better than existing institutions.

This book is representative of the wide-ranging presentations at the IUCN Academy of Environmental Law's 10th Colloquium. The chapters provide expert analysis by leading environmental scholars on the latest environmental governance developments, initiatives and challenges from six continents. They capture, as keynote speaker Edith Weiss Brown noted, the 'kaleidoscopic' nature of Global Environmental Law at a Crossroads.