This issue sees a slightly modified format for the e-journal: for this issue only the editors took the decision to bring out a shortened version of the journal. Some colleagues and contributors may be aware that e-Journal editor Gay Morgan sadly lost her partner, Al, to a brain tumour after a difficult fight over the course of putting together this issue. Issue 8 is dedicated to both their bravery. This is also the last issue which will be edited by Michaela Lau - she has moved to a new institution and we wish her every success in her new position.

As of this Issue, Dr. Opi Outhwaite has taken on the role of co-editor, after serving as Managing Editor for the past two years. She will be joined by Professor Shawkat Alam as acting co-editor.

Despite the shorter than usual issue the editors are pleased to present, in what has become a trademark characteristic of the Journal, an amalgamation of contributions that stretch far and wide within the broad field of environmental law. The Editorial Team hopes that the contributions in this issue may serve as a repository for the exchange of ideas and potential legal and policy responses in an ever-changing and more and more complex world.

As is customary, this issue includes several Country and Region Reports. These reports cover both developed and developing countries and present an array of topics of interest and importance in those jurisdictions. Two Country Reports, from China and Kenya, focus on forestry related issues, while several others, including the reports from the Bahamas, Austria and New Zealand canvass recent case law on a variety of topics related to environmental law. The Reports for the Czech Republic and the USA provide general updates on the overall state of environmental law in those jurisdictions. The Report from the US, in particular, paints a worrying picture for the state of the environment in this vast country, and by association, for the remainder of the world.

The Reports from three developing countries, namely Bangladesh, Nigeria and South Africa, attest to the fact that environmental law in those countries continues to grow and develop. The Report from Bangladesh focuses on the concept of Ecologically Critical Areas, and the long-

awaited enactment of Rules that underpin the establishment of such conservation areas in that country. The Nigerian report provides insights regarding the development of GMO legislation in that jurisdiction and the Report from South Africa reviews the country's efforts to establish a Marine Spatial Planning law, a topic which featured in Issue 7 as well. Finally, one region Report, from the EU, focuses on developments in EU law regarding air quality – a topic which otherwise did not feature greatly in this issue of the Journal.

This issue also features two Teaching Articles, one of which provides valuable background information on the IUCN Academy of Environmental Law's 'Training the Teachers" programme. This programme seeks to enhance the capacity of environmental law teachers, particularly in developing countries and the article highlights the important role that the Academy plays in supporting the next generation of environmental lawyers and their teachers. The other Teaching Article considers the value and type of training that is, and could be, offered at Environmental Law Clinics (ELCs). These clinics, as goes for all types of legal education, need to respond to the changed environment within which our law graduates have to survive and make their mark. The Article provides some thoughts on how the ELC model might be taken to new levels.

The issue concludes with a Book Review by Paloniitty. The reviewed book on EU Agricutural Law was greatly anticipated by scholars in the field and Paloniitty provides both a clear overview of the contents of the book and candid assessment of its value and contribution to this important sub-theme within environmental law.

We trust our Readers will find the contributions both thought-provoking and informative and we thank both our contributors and the Editorial Team for their efforts in publishing another issue of the Journal!

Michaela Young, Gay Morgan & Opi Outhwaite

ACCESS AND BENEFIT SHARING COLLABORATIONS: THE ACADEMIC CONFERENCE AS INTERMEDIARY FOR INSTITUTIONAL RELATIONSHIP-BUILDING*

Evanson Chege Kamau**, Jae-Hyup Lee***, John Leitner****, Jisuk Woo*****

Introduction

The complexities and scientific importance of marine biological research create an imperative for international collaboration. That understanding provided the fundamental and animating purpose for the Access and Benefit Sharing of Marine Biological Resources in the Asia-Pacific Region Conference (the "Conference"),[1] hosted by the Center for Energy and Environmental Law and Policy of the Seoul National University School of Law on September 11, 2015.

The Conference was attended by a broad audience from South Korea, Indonesia, Vietnam, Micronesia, the Philippines and Germany. The speakers and discussants possessed diverse professional backgrounds, the majority being scientists and lawyers. As the title of the Conference indicates, the Conference was intended to establish an ambitious collaborative research network, the Asia-Pacific Marine Biology Research Law and Policy Network (the "Network"), in order to provide a vehicle for advancing the scientific and social goals that

* This article was supported by the Asia-Pacific Law Institute of Seoul National University in 2017. The authors wish to thank the Korea Institute of Ocean Science and Technology for co-hosting the conference.

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[1] The full title of the Conference was "Access and Benefit Sharing of Marine Biological Resources in the Asia-Pacific Region Conference: Toward a law and policy network for access and benefit sharing (ABS) of the marine biological resources in the Asia-Pacific region."

underlie access and benefit sharing ("ABS"). By their execution of a Memorandum of Understanding, six institutions[2] became the charter members of the Network at the Conference. The purpose of the Conference was to establish cooperative relationships for ABS, promote subsequent collaborations through the Network and other multilateral channels, and ultimately provide manifold opportunities for scientific cooperation and the development of strong and sustainable policy frameworks. This paper proposes that the Conference models an important form of international forum for the establishment and development of ABS networks. As discussed below, the Conference fulfilled one of its vital objectives, bringing interdisciplinary expertise into a concrete dialogue in order to lay a strong foundation for the development of a robust law and policy framework. Ideally, that dialogue will advance scientific research and innovation based on marine genetic resources in the region. The long-term goals for post-Conference collaborations through the Network remain a work in progress. Nonetheless, the Conference has served, and similar interdisciplinary academic forums should continue to serve, as a vehicle for advancing the scientific and social goals that underlie ABS.

Objectives of the Conference

Researchers, policymakers, and other interested parties must confront dual challenges in their work on ABS. Research should be conducted, and applications of research outcomes should be developed and implemented, in a resource- and time-efficient manner. These efforts must simultaneously reflect a meaningful commitment to sustainability. A successful response to these challenges will require an integrated, inter-disciplinary approach that draws upon law, ethics, and applied science to enhance biological, ecological, oceanographic, and biotechnological outcomes.

[2] The six institutions are:

1. Center for Energy & Environmental Law and Policy, Seoul National University;
2. Research Centre for European Environmental Law, University of Bremen;
3. Korea Institute of Ocean Science and Technology;
4. Center for International Law Studies, Faculty of Law, Universitas Indonesia;
5. National Marine Biodiversity Institute of Korea; and
6. Centre for the Sea and Maritime Law, Faculty of Law, Vietnam National University, Hanoi.

The particular challenges of facilitating cross-border ABS, and the need for relationships and shared confidence amongst disparate collaborators, illustrate the value of the academic conference. The broad objective of the Conference[3] was to provide an initial intellectual foundation to form a network of experts on law, policy, and marine science in the Asia-Pacific region. The Network, in turn, is intended to become a focal point for further academic research, presentation of outcomes, and the application of outcomes to promote sustainability goals. The Conference should be the first of a continuing series of forums, including subsequent conferences, colloquia, and participation in relevant international gatherings and events. These additional forums are necessary to sustain the dialogue that originated out of the Conference. The essential characteristic of the Network is that it be member-driven and collegial. The organizers of the Conference contemplated that participants would form collaborative relationships on an on-going basis. Such relationships require close mutual cooperation and trust, which interpersonal and intellectual exchanges can help to build.

With these considerations in mind, three perspectives are helpful for viewing the cooperative framework: the governance and human resources for the framework, the actions that can be undertaken through the collaborative framework, and the outcomes that the framework will facilitate.

Regarding governance and human resources, the Conference should lead to a working group within the Network to develop a legal basis for joint work and cooperation, including model agreements. The working group should also undertake to expand the policy underpinnings of the Network, including how to link the Network with other international organizations that

[3] The specific objectives of the Conference, the Network, and other collaborations among the participants initially included:

1. Building up the Network as an interdisciplinary network of experts on law, policy, and marine science in the Asia-Pacific region;
2. Constructing a platform for formulating policies and “best practice” principles for research and policy collaborations, which can be developed into regional standards that can be utilized across borders and between disciplines;
3. Developing model agreements to facilitate expeditious co-research and other cooperative activities that are fully consistent with the parallel concerns of efficiency and sustainability; and
4. Drawing upon the experience of the Network and participants to build a cooperative strategy for working with domestic governments and international organizations.

promote scientific and environmental cooperation.[4] As discussed below, the Conference included a heavy emphasis on the utilization of expertise relating to cooperation with local communities. Finally, the members of the Network should form a committee or other group to oversee academic events, including annual conferences.

Amongst the many productive actions in which members of the Network could engage together, organizers and participants at the Conference emphasized certain practical and achievable steps: (1) developing model agreements for facilitating greater ABS activities; (2) preparing Network-wide overarching agreements to connect ABS activities to each other for the purposes of knowledge-sharing and preparing future research; (3) studying the relationship between biological research and social and community knowledge, and ensuring that ABS outcomes recognize and reinforce community knowledge; (4) forming databases for knowledge-sharing; (5) facilitating site visits and sampling; and (6) formulating and implementing longer-term research programs, including collaborations with other international organizations and presentation of research and policy outcomes at international conferences and other events.

The value of academic conferences, in particular an inaugural event like the Conference, critically depends on sustained actions producing the outcomes that can only be envisioned at the academic forum itself. At the Conference, certain outcomes were proposed for the members of the Network, ranging from highly concrete objectives to broader goals. First, members should focus on joint activities that assist them in efficiently progressing through research plans. Second, members must strive to integrate scientific knowledge with social conditions and applying the knowledge to communities, recognizing their unique circumstances and cultural contexts. Finally, members should aspire as their overarching mission to promote sustainable economic and environmental goals through the integration of scientific, technological, ecological, and socio-cultural work.

Conference Proceedings

The discussions on the conference theme were structured into four sessions: Regional Law and Policy Networking on Exploring Marine Biological Resources (Session I); Comparative ABS Policy Models of Marine Biological Resources (Session II); Conservation of Biodiversity and ABS in Relation with Law of the Sea (Session III); and Roundtable Discussion (Session

[4] These include various initiatives organized by the IUCN or the Secretariat of the Pacific Regional Environment Programme.

IV). The Conference also included the signing of the Memorandum of Understanding by representatives of the founding members of the Network. The discussion below incorporates each of the sessions while presenting the disciplinary, geographic, and economic considerations of the participants in the Conference. This article does not propose that the specific contents of the Conference should provide a necessary pattern for other interdisciplinary meetings. Rather, they are set forth here as an illustration of the approach taken by the participants that formed the Network.

Scientific Perspectives on ABS

The Conference was designed to incorporate scientific views into all facets of the discussion. Two parts of the agenda brought specific focus to the experiences of scientists: a lecture by SNU biology professor Young Woon Lim and the roundtable discussion.

Bioprospecting Activities in South Korea

The hardships scientists have faced since the adoption of the Convention on Biological Diversity (the "CBD")[5] was a theme for the first speaker, Prof. Young Woon Lim, a biologist on the faculty of SNU specializing in fungi research. Before the CBD, genetic resources were regarded as a common heritage of humankind: access was unrestricted and users were not obliged to share benefits. The situation changed with the adoption of the CBD in 1992, which recognized the sovereign rights of States over their natural resources and hence the authority of the provider to determine access subject to prior informed consent and mutually agreed terms (Articles 15.1, 5, 4 respectively). With the adoption of the Nagoya Protocol[6] in 2010, the new standards have been more stringently applied.

Korea is surrounded by seas and ecosystems with interesting biological resources which are barely studied. These include fungi, sea weed, microorganisms and sponges. Substantial and diverse species of Penicillin –a well-known fungus– and many other fungi were discovered. In Korea, approximately 100 species of Penicillin have been recorded. However, many of them are terrestrial. Marine-derived Penicillin remains poorly understood. As a result, the Ministry of Oceans and Fisheries established several bio-resource banks to promote the exploration of marine biodiversity and biological resources.

[5]Convention on Biological Diversity, June 5, 1992.

[6] Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity, October 29, 2010.

The number of Penicillin species known in Korea has increased with the successful isolation of a total of 184 Penicillin strains (from three different marine substrates –soil, seawater and microorganisms). In addition to the identified marine-derived Penicillin species, the relevant study has identified an additional 30 species, thus almost doubling the known marine-derived Penicillin diversity. The study presented newly obtained knowledge of marine-derived Penicillin diversity and South Korean Penicillin species in general. From the approximately 30 species isolated from marine environments in other previous studies, only six species overlap with the relevant study.

The study's results are commendable and showed the important role of research in marine ecology, which is a hotspot of marine resources. But Professor Lim strongly asserted that ABS regulations/requirements have hindered research efforts. This viewpoint became particularly clear during Conference discussions, when he insisted that demands for benefit sharing (including from derivatives) are exaggerated, because scientists invest much more into their research than the research yields in tangible benefits, such that at the end, it should be the provider of genetic resources that provides benefits to the researcher, and not the other way around.

Roundtable Discussions

The roundtable discussions began with a lead speech by Dr. Yeonju Lee, a biologist affiliated with the Korea Institute of Ocean Science and Technology ("KIOST"). Dr. Lee's lecture, "Research on marine biological diversity and research by KIOST," gave a general picture of diverse research activities on marine microorganisms that have been undertaken by different international researchers and institutions globally. These include isolation of a protein from jellyfish that can be used in biotechnology, isolation of hydrogen-producing microorganisms from a deep-sea hydrothermal vent (by KIOST) and macro- or microalgae to produce ethanol or biodiesel. In addition, quality research on marine bioresources has been undertaken to isolate chemical agents from fungi, algae, viruses, sponges, fish etc. for drug development. Some of the chemical agents are registered in the USA (through the Food and Drug Administration) and in the European Union. All these developments, including those leading to commercialization, are attributable to the bioprospecting work of scientists starting from collection and analysis of biological samples as well as identification of their chemical constituents and function. The more diverse the samples of biodiversity are, the more difficult it is to analyze. Dr. Lee went on to talk about examples of specific marine bioprospecting projects that have been undertaken recently in South Korea.

In South Korea, KIOST, in cooperation with the Ministry of Oceans and Fisheries, is engaged in marine biodiscovery, including a number of joint research projects on marine biological diversity and resources. The projects involve collection of marine organisms from Vladivostok (Russia), Hanoi (Vietnam), Visayas (Philippines) and Chuuk and Kosrae states of Micronesia for non-commercial purposes. If organisms that can lead to commercialization are found, the consent of the provider country is sought for further analysis. Subsequently, the research enters into another phase of natural product discovery which involves testing the organisms for activities, such as treating cancer, inflammatory disease and neuronal disease (pharmacology) and total synthesis study (medicinal chemistry). Examples of KIOST research results include the discovery of neurite outgrowth activity from extracts of tropical marine invertebrates and anticancer activity from tropical marine sponge (*Suberea sp*.) collected from Chuuk state of Micronesia. The results of the latter research were published in the Journal of Natural Products, where Chuuk was duly acknowledged.

Finally, Dr. Lee shed light on access authorization when collecting samples abroad by using the example of Kosrae state of Micronesia. Following an application by KIOST researchers and partners to conduct scientific research, the government of Kosrae state issued a research permit and a certificate of origin confirming authorization to collect marine invertebrates specified in the certificate. In addition, an ABS agreement was entered into between the Kosrae state government and KIOST.

The discussion following the speech centered on one major issue: how to differentiate between non-commercial and commercial research. Comments and questions from the floor pointed to the fact that, whereas the scientists claimed that they were conducting non-commercial research, some of the research could apparently lead to commercial applications. For example, some activities involved the isolation of active compounds and the description of possible industrial uses. Such an activity, which comprises a change of intent for research authorized for non-commercial purposes, requires that new consent is sought from the provider and new mutually agreed terms are established. Although this was clearly indicated in the ABS agreement between the Kosrae state government and KIOST, concerned scientists seemed either not to have adhered to the requirement or were ignorant of it. In addition, it was not clear for some participants why the scientists had to enter into an agreement if their intent *ab initio* was purely scientific. It was suggested that most scientists begin their research with a pure scientific intent but they are later compelled to do further research due to pressure by funders to provide more tangible outputs. One commenter offered the sensible perspective that there is a need for close cooperation between scientists and policy makers. Scientists should disclose openly from the onset the exact kind of research they want to undertake, and

policy makers should help in formulating policies and agreements which facilitate scientists in their work.

Comparative ABS Policy Models of Marine Biological Resources

Understanding the processes and potential obstacles for ABS in the Asia-Pacific region requires careful consideration of both domestic and international law. The Conference included detailed discussions of the domestic ABS policies of two important jurisdictions, Vietnam and South Korea, which illustrate the provider state and user state perspectives (though as discussed below, South Korea can be seen as both). Discussion at the Conference also included case study discussions of the implications of international law and policy in Indonesia and Micronesia.

Vietnam[7]

Vietnam has enacted legislation on the management of aquatic genetic resources and marine biological resources and on access and benefit sharing. These laws include the Law on Fisheries; Law on Forest Protection and Development; Ordinance on Plant Varieties; Ordinance on Livestock Breeds; Law on Environment Protection; Law on Biodiversity; and Law on Natural Resources and Environment of Sea and Islands. There are also decrees and circulars which serve as guidance documents.

ABS in Vietnam is mainly regulated by two legal instruments: Law on Biodiversity of 2008 and Decree No. 65 of the Government of June 2010. The former specifies how ABS is managed in Articles 55 to 61 and addresses, *inter alia*, rights and obligations of organizations; households and individuals assigned to manage genetic resources; order of and procedures for access to genetic resources; contracts on access to genetic resources and benefit sharing from accessed genetic resources; licenses for access to genetic resources; and rights and obligations of organizations and individuals that are granted licenses for access to genetic resources. The latter provides detailed regulations and guidance on the implementation of some articles of the Biodiversity Law –including the management of ABS– under Articles 18 and 19. Article 18 deals with access to as well as permit for genetic resources. Article 19 deals with benefit sharing and contains general provisions on forms of sharing of both monetary and non-monetary benefits.

[7] Mr. Nguyen Ba Tu, a biologist affiliated to the Biodiversity Conservation Agency in Hanoi, Vietnam, spoke on “ABS policy in Vietnam.”

In Vietnam, state management of genetic resources and ABS is currently assigned to several ministries and agencies based on their function and the tasks to be performed. They include the Ministry of Natural Resources and Environment (MONRE), Ministry of Agriculture and Rural Development (MARD), Ministry of Science and Technology (MOST), Ministry of Industry and Trade (MOIT), Ministry of Health (MOH) and Provincial People's Committees. MONRE is the national focal point for implementation of the CBD, the Nagoya Protocol and for unified state management on biodiversity. The MONRE is responsible for guiding the management and supervision of access to genetic resources and traditional knowledge, use of shared benefits from access to genetic resources under state management, developing and consistently managing national database of genetic resources, and granting access to genetic resources for priority species protection. MARD is in charge of managing the implementation of the conservation of aquatic, agricultural and forest/forestry genetic conservation, plant varieties and livestock breeds. MOST manages a national program for ex-situ conservation of genetic resources and coordinates genetic resources conservation activities within the country. MOH and MOIT are responsible for the management of genetic resources in accordance with their functions and tasks to be assigned. Provincial People's Committee is responsible for granting access to genetic resources for other cases not specified as priority species protection.

Although Vietnam has laws containing provisions on ABS, these laws are not very specific concerning the management of ABS and, in addition, they contain gaps and overlaps, which mar the implementation of ABS measures. The current regime lacks concrete guidance and clarity that is required in order to ensure effective implementation, compliance and enforcement of ABS. For example, Vietnamese law is not clear and specific on the roles and responsibilities of the different players, especially at the institutional and legal levels. It also lacks detailed procedures on application for access to genetic resources, granting of prior informed consent, and negotiation and establishment of mutually agreed terms by different stakeholders. In addition, it does not offer guidance on the treatment of commercial and non-commercial research, identification of national competent authorities and their respective roles and mandates in the application, licensing and monitoring of the ABS process. These shortcomings are aggravated by the fact that Vietnam lacks a national database of genetic resources and associated traditional knowledge, institutional and technical capacities and awareness for ABS, practical experience in developing and implementing ABS agreements, and clear rules for determining sovereignty as well as ownership for many genetic resources and associated traditional knowledge.

Vietnam has undertaken a number of activities to bring existing laws into compliance with the Nagoya Protocol since its adoption in 2010. Following the directive of the Prime Minister,[8] MONRE, in cooperation with relevant agencies, cooperatively studied the contents and provisions of the Nagoya Protocol from 2011-2013 and came up with recommendations in regard to joining the Nagoya Protocol, which were submitted to the government. On March 17, 2014, the government issued Decision No. 17 on entering into the Nagoya Protocol on ABS and, upon ratifying the Nagoya Protocol, Vietnam became its 31st member on 23 April 2014. Following the ratification, MONRE was mandated through government decree[9] to lead ministry and sectoral collaboration in order to develop and submit a decree on ABS to the Government. The Decree's scope will be clarified through regulations on the utilization of genetic resources and the purpose of fair and equitable sharing of benefits arising from such resources.

Other issues still to be addressed include the development of model ABS agreements; specific guidance on how to share benefits; details of regulations on compliance, enforcement and implementation of prior informed consent and mutually agreed terms; and specific regulations on administrative penalties supporting the enforcement.

South Korea[10]

Unlike Vietnam, South Korea has not fully developed ABS policies, although Korea hosted the 12th Conference of Parties of the CBD at Pyeongchang, where the Nagoya Protocol entered into force in October 2014. However, Korea ratified the Nagoya Protocol recently and became party on 17th August 2017,[11] which could be interpreted as a sign of commitment to its consequential implementation. At the time of writing this article the Korean legislative process was still in progress, as explained below.

South Korea has a law enacted through the Ministry of Environment, the Act on Conservation and Use of Biodiversity of 2012. The Act lacks provisions on access to genetic resources and benefit sharing from utilization of such resources. South Korea also has a statute on marine-specific biological resources, the Act on Securing, Management and Utilization of Marine

[8] Document No. 3533/VPCP-QHQT.

[9] No. 17/NQ-CP.

[10] Professor Jae-Hyup Lee at Seoul National University School of Law spoke on "Law and Policy Relating to Use and Benefit Sharing of the Marine Biological Resources."

[11] See www.cbd.int/abs/nagoya-protocol/signatories/default.shtml (accessed November 9, 2017).

Biological Resources of 2012. This Act uses the term “biological resources”, a much broader concept developed by the Ministry of Oceans and Fisheries, and not “genetic resources”. Therefore, there was no law focusing on ABS in South Korea and no implementing legislation for ABS provisions of the CBD and Nagoya Protocol in all fields, including in regard to marine and land resources.

With the enactment of the Act on Access and Benefit Sharing of Genetic Resources (hereinafter ABS Act) on Jan. 17, 2017, Korea has established a legally mandatory ABS system.[12] A number of issues are of critical importance in implementing the law.

Provider and user measures: should Korea be considered as a provider or user in terms of natural resources? Though regarded as a peninsula, Korea is practically an island, with the sea on three sides and North Korea to the north. This endows the nation with a plethora of marine biological diversity. However, relatively little is known about the genetic resource value of this diversity. Much further research is needed to explore the diversity of these genetic resources. This is basically an empirical matter, requiring a comprehensive compilation of genetic resources. From a policy standpoint, it seems Korea is more a user country than a provider country. This position will need an assessment of the importance of marine biological prospecting for national development strategy, one of which is to promote bio-industry. Depending on which stand is taken, it can be decided which provisions need to be more developed, and which ones less developed. If more of a provider position is taken, the level of barrier may need to be raised, such as by making prior informed consent or mutually agreed terms a mandatory requirement. But if more of user country position is taken, then this kind of requirement may be a little bit more relaxed. In Article 9 of the ABS Act, a foreign user desiring to use Korean genetic resources must simply make a declaration; an approval of a government authority is not required. [13] It also requires the user and provider to “strive” to enter into an agreement in a fair and equitable way,[14] hardly an onerous burden.

Another important issue is how to establish a simplified procedure for basic research or research for non-commercial use. From researchers’ point of view, this is very vital under the Nagoya Protocol. Even where a country opts to establish a prior informed consent system,

[12] Act on Access and Benefit Sharing of Genetic Resources (hereinafter ABS Act), Law number 14533, enacted on Jan. 17, 2017.

[13] ABS Act, Article 9 (Declaration of Access to Domestic Genetic Resources, etc.).

[14] ABS Act, Article 11 (Benefit Sharing arising from Genetic Resources, etc.).

procedures can still be simplified or waived for such research.[15] At the same time, however, the Nagoya Protocol does not clearly define non-commercial research. How can commercial and non-commercial use be distinguished? To what extent can the two usages be treated differently?

In brief, thinking of both provider and user positions, provider measures are essentially prior informed consent, mutually agreed terms, control and monitoring of resources, ecosystem management and conservation. Examples of user measures that are provided in Korean law to deal with compliance with ABS requirements are found in Articles 14-16. They require, for example, that when institutions like KIOST go over to Micronesia and collect samples, they will declare that they complied with ABS requirements in Micronesia.[16] The Act also has a provision on checking user's compliance with prior informed consent requirements. What if the declaration made is false, or there is violation of ABS requirement overseas? Article 16 provides that if those violations are informed by the provider country or the third party, then the government can investigate the user's compliance with prior informed consent.[17] This is a much stronger measure. Other examples of user measure include remedies and procedures for protecting provider's ABS rights and enforcement measures for ABS violation. In Korea, an investigation by the government authority is available, but the law does not specify any enforcement or remedy mechanism.[18] Hence, there are no penalty measures for violation overseas.

Governance: Korean policymakers must also consider whether governance will be comprehensive or issue-specific. Currently, there are at least five different agencies that are relevant in ABS in the areas of science, environment, marine and agriculture. Each area is implemented under a separate ministry and is subject to specific laws and policy directives.[19] This may hinder the systematic and effective establishment of the ABS system. Should all relevant activities and regulations be consolidated under one special agency, or a special

[15] Nagoya Protocol, Article 8(a).

[16] ABS Act, Article 15.

[17] ABS Act, Article 16, para. 1.

[18] Article 16, para. 2 of ABS Act states that the government may recommend compliance with prior informed consent requirements overseas, if necessary.

[19] There are four National Competent Agencies specified in Article 8 of ABS Act: (1) Ministry of Science, ICT and Future Planning, (2) Ministry of Agriculture, Food and Rural Affairs, (3) Ministry of Health and Welfare, (4) Ministry of Environment, and (5) Ministry of Oceans and Fisheries.

agency that can coordinate the relevant agencies? Or should agencies with expertise in a particular area, like the Ministry of Oceans and Fisheries, assume responsibility for that area? With an increasingly complex international law system, subject-specific jurisdiction may be difficult to maintain.

Private or public: Since the Nagoya Protocol allows both private autonomy and government intervention, which aspect should be emphasized more? The former would require the creation of a level playing field of contracting parties, including through mutually agreed terms, to enable market-oriented self-regulation. The latter, government intervention, would require: 1) striking a balance between intellectual property and biodiversity regimes; 2) promotion of interdisciplinary dialog between scientists and policy decision-makers (some policies might heavily hinder scientific work or contradict the scientists' way of working, so more involvement is necessary); and 3) participation of local and indigenous stakeholders (little attention is paid to traditional knowledge in the ABS Act, perhaps because there are not many groups in Korea regarded as indigenous populations).

Regional coordination: finally, South Korea must consider how and to what extent to coordinate law and policy among neighboring countries in the region, such as Indonesia, Vietnam, Micronesia and the Philippines. The danger of unilateralism is the tendency of countries to compete in order to attract more prospecting from the user countries, leading to race-to-the-bottom and forum shopping. A more equitable and appropriate legal framework would include a suitable legal infrastructure on a regional basis. To that end, national laws and policies on ABS would need to be converged, and prior informed consent and mutually agreed terms streamlined. Much can be learned from the Micro B3 project. The other option to think about is the development of a global research commons,[20] networking, and collaboration as foreseen by the Nagoya Protocol under Article 10. The SNU Center for Energy and Environmental Law and Policy has been working to develop regional networking for many years, and the Conference endeavored to build upon prior preparatory meetings, including a conference and a seminar workshop on access and benefit sharing in 2014.

Conservation of Biodiversity and ABS in Relation with Law of the Sea

Conservation of biodiversity and its exploitation are inseparable. That logic is evident in many multilateral environmental agreements, including the CBD and the United Nations Convention

[20] See, e.g., Jerome H. Reichman and Paul F. Uhlir, Governing Digitally Integrated Genetic Resources, Data, and Literature: Global Intellectual Property Strategies for a Redesigned Microbial Research Commons (Cambridge University Press, 2016).

on the Law of the Sea ("UNCLOS"). It is therefore legitimate that in ABS networking, issues of conservation both in areas within national jurisdiction and those beyond national jurisdiction are also addressed. These issues were illuminated in case studies on Indonesia and Micronesia.

Indonesia[21]

The international rules applicable to Indonesia are mainly contained in the UNCLOS and the CBD. The UNCLOS gives Indonesia exclusive sovereignty over archipelagic waters as internal waters and territorial sea. In the Exclusive Economic Zone, on the other hand, the sovereignty of the state to exploit the resources of the Exclusive Economic Zone is subject to the obligation to sustainably utilize as well as maintain and restore them. The Exclusive Economic Zone rule also (logically) ensures that the coastal state can continuously benefit from the exploitation and utilization of the resources of the sea. The CBD establishes far-reaching obligations for conservation of biodiversity. From its definition of "biological diversity,"[22] states are obliged not only to conserve the species but the species' habitat as well; this is not an easy task. In addition, it establishes concrete strategic principles, including measures and incentives for conservation and sustainable use of biodiversity. In implication, these and other obligations require that a regime for access and benefit sharing must, for example, be able to govern how resources are taken from their habitat, based on prior environmental impact assessment, and how traditional knowledge associated with such resources is accessed.

The CBD subjects access to the prior informed consent of the party providing genetic resources and associated traditional knowledge. The role of traditional knowledge associated with marine genetic resources is particularly important in a country like Indonesia which, due to its large coastline, has many indigenous communities who have been taking and using these resources for many generations. The interests of such communities must be acknowledged, but admittedly that is also complex in Indonesia, with over 200 tribes with distinct languages and cultures. Save regulating access, an ABS regime must ensure that benefits arising from the utilization of genetic resources and associated traditional knowledge

[21] Prof. Melda Kamil Ariadno, a law professor at the University of Indonesia spoke on "Protection of Marine Biological Resources: Indonesian Perspective."

[22] According to Article 2 of the CBD "Biological diversity" means 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.

are shared in a fair and equitable way with the country and communities providing genetic resources and associated traditional knowledge. Such benefits include access to and transfer of technology, including biotechnology. The principles of ABS have been concretized in the Nagoya Protocol, which is the instrument meant to operationalize the access and benefit-sharing regime. Indonesia is party to the CBD and has ratified the Nagoya Protocol.

Arguably, Indonesia has the necessary legal instruments to govern the utilization of living marine resources. The Ministry of Marine and Fisheries has been mandated by the government to make best efforts to harness and develop the potential of marine and fisheries resources as well as seek opportunities for bilateral cooperation to optimize the utilization of marine biological resources in a sustainable manner. In order to encourage cooperation, including multilateral, the Analysis Center for International and Inter-Institutional Cooperation was established. However, there are still hiccups with implementation of the law especially due to the fact that Indonesia consists of many autonomous provinces with certain rights to exploit the marine area. In order to surmount the consequent challenges Indonesia needs to streamline its policies so that those of the central government and the regional government are in line and are compatible with each other.

Federated States of Micronesia[23]

Micronesia is party to the CBD. Hence, in line with Article 6, which obligates each party to develop a national strategy of plan or program for the conservation and sustainable use of biodiversity within each jurisdiction, a national biodiversity strategy action plan ("NBSAP") was adopted in 2002. The core vision of the NBSAP is to have a more extensive, diverse, and higher quality of marine, freshwater, and terrestrial ecosystems, which meet human needs and aspirations fairly, preserve and utilize traditional knowledge and practices, and fulfill the ecosystem functions necessary for all life on Earth. This NBSAP is tied to four core principles: 1) recognizing the sovereign rights of the people of Micronesia to manage and enjoy the biological diversity; 2) focusing on the community, as the basic management unit for the biodiversity of Micronesia; 3) building upon and utilizing the rich traditional knowledge of the indigenous people of Micronesia; and 4) perfecting the integrity of Micronesian ecosystems. Further, the NBSAP is organized around 11 major biodiversity strategic themes, of which three critical themes are ecosystem management; species management; and genetic resource use. Since the NBSAP was adopted in 2002, there has been generally mixed progress in terms of

[23] Mr. Clement Yow Mulalap, a lawyer and legal adviser of the Permanent Mission of the Federated States of Micronesia to the United Nations, spoke on "Fair, equitable and sustainable access to, and benefits from the living resources of areas beyond national jurisdiction: Legal challenges and perspectives of a large-ocean pacific small island developing state."

promoting those themes. Under ecosystems management, Micronesia commits to protect, conserve and sustainably manage the four representations of marine, freshwater and terrestrial ecosystems. To only satisfy this theme, the so-called Micronesian Challenge was initiated. The Micronesian Challenge consists of an agreement between the Republic of Palau, the Republic of Marshal Islands, Guam and the common land of the Northern Marianas (all part the same geographical region) to conserve at least 30% of the grooves, near-shore marine resources and 20% of terrestrial resources by 2020. Since the start of the Micronesian Challenge, there have been 50 protected areas established in Micronesia, the majority of which are marine areas.

The goal of the second theme, species management, is to ensure the protection and sustainable use of certain traditionally important species. Because of the strong work of a number of conservation groups, a number of recorded steps have been taken to achieve this. Just in the last couple of years, Chuuk state enacted laws that regulate the harvesting of sea cucumbers, mangrove crops, and other important marine species. Perhaps the most impressive development is that there is now a nationwide sanctuary for sharks in the entire Exclusive Economic Zone of Micronesia, including the territorial seas controlled by the four states. This sanctuary has its own commercial shark fishing within Micronesia, including shark fin. This sanctuary joins similar sanctuaries in Palau to the west, Marshall Island to the east, the Commonwealth of the Marianas Island and Guam to form the world's largest continuous area of shark protection.

The third theme is genetic resources use. The strategic goal for this theme is to make Micronesia's genetic resources accessible for utilization and ensure that all benefits from those resources are equitably shared among stakeholders. The NBSAP commits Micronesia to enacting legislation and policies that upgrade ABS regimes in Micronesia. In January 2013, Micronesia ratified the Nagoya Protocol. In Micronesia's view, the final mission of the Nagoya Protocol is to strike a balance between the needs and interests of users of genetic resources and providers of those resources. Although Micronesia is an enthusiastic supporter of the Nagoya Protocol, it faces a number of challenges in establishing a national ABS regime based on legal, social and cultural realities. As a result, unlike in the first two themes, barely any progress has been made in developing the third theme. Those challenges are discussed below.

First, it is not easy to get a formula that perfectly balances the interests of all stakeholders. This balance is particularly critical considering the Protocol's coverage of traditional knowledge associated with genetic resources. The national population is almost exclusively

comprised of several indigenous groups with centuries of experience utilizing genetic resources from the natural environment for many traditional purposes, including medicinal healing and focused agriculture. Securing prior informed consent and reaching mutually agreed terms with those indigenous people is essential. Second, the national government has a limited mandate under the constitution. It can enter into treaties and other international agreements, including the Nagoya Protocol. However, the four states are the primary legal authority with responsibility for environmental conservation and natural resource management within their respective jurisdictions. Their authority extends not only to the territorial jurisdictions but also to territorial seas. In addition, most terrestrial and maritime areas are owned or managed by individuals or communities and not by the state government. Hence, to establish an ABS regime in line with the Nagoya Protocol, the national government must work closely with the state governments. In the meantime, following the ratification of the Nagoya Protocol, a draft interim ABS policy has been completed after consulting with various stakeholders at the national states, especially the indigenous communities in different regions. The core objective of the draft policy is to have a facilitative, effective, manageable, and sustainable ABS system to generate and equitably distribute benefits arising from the use of genetic resources and associated traditional knowledge and to use these benefits to ensure the conservation and sustainable use of biodiversity, and to uphold the rights of the custodians of biodiversity. While efforts to design and implement a state-level governance system are laudable, more progress must still be made in Micronesia.

Law and Policy in Regional Networking[24]

Bioprospecting of marine genetic resources/microorganisms is a relatively new area of research, not only in South Korea, but also internationally. The many challenges faced by researchers require synergy from different disciplines and groups of scientists. This is the approach taken by the European Union Micro B3 Project, which could serve as a model for networking in the Asian-Pacific region. The EU Micro B3 Project is a large-scale collaborative project, integrating an interdisciplinary and intersectoral team of European world class researchers, who are experts in three areas: biodiversity, bioinformatics and biotechnology. [25]

[24] Dr. Evanson Chege Kamau spoke on “What can be learned from the EU Micro B3 Project?”

[25] Caroline von Kries, Arianna Broggiato, Tom Dedeurwaerdere, and Gerd Winter, “Micro B3 model agreement on access to marine microorganisms and benefit sharing,” in Evanson Chege Kamau, Gerd Winter and Peter-Tobias Stoll (eds.), Research and Development on Genetic Resources: Public domain approaches in implementing the Nagoya Protocol (Routledge, 2015) 330.

The team forms a consortium of 32 academic and industrial partners who are bound together by a consortium agreement. By creating cross-cutting interdisciplinary synergies, the project aims to overcome obstacles in marine biodiversity research and blue technology. These are many in spite of the great importance of marine microorganisms for humankind, the earth and, of course, their immense industrial potential. By overcoming existing obstacles, the consortium aims to bring new research in marine ecosystems functioning and its biotechnological potential. By doing that the project also addresses the Ocean of Tomorrow Call Topic OCEAN 21 (2011-2).[26]

There are two groups of challenges that the EU Micro B3 project aimed to overcome. The first set of challenges is scientific and technical and the second, legal. The legal challenges include the conflict between research and development and access and benefit-sharing requirements; exchange of data; intellectual property issues; and dissemination of information. These elements focus on how access for research purposes can be facilitated, on the one hand, and on the other, how compliance (with ABS regulations) can be enhanced. These issues provided law and policy discussion points for the Conference.

Whereas such a collaborative undertaking brings together ideas on how the numerous problems of doing research can be solved, new problems could arise; existing ones could likewise be aggravated. This is true especially for a project with a magnitude such as the one of the EU Micro B3 project –in terms of the large participation and the *quasi* global geographical scope covered by its bioprospecting activities. Some of the questions that arise in such a case include: How can the behavior of so many partners be controlled? Are they going to adhere to the rules of interacting and conducting the research? How can the diversity of so many legal requirements be dealt with? How can so many interactions between so many stakeholders be maintained? Of course, another major issue is that in such a huge project involving pre-emptive research, it is nearly impossible to avoid interactions with stakeholders who are not bound by the consortium agreement. So how can their behavior be controlled in order to first, secure the process and preliminary results of the research and two, to avoid violation of partners' obligations under the consortium agreement?

[26] The "Ocean of Tomorrow Call" is a European project under Framework Program (FP)7, which invites, calls for projects, which apply interdisciplinary approaches and also engage cross cutting scientific collaboration. But the other important or interesting aspect of the project is that it also invites business partners, in particular small and medium-sized enterprises to participate (For more information see http://ec.europa.eu/research/bioeconomy/pdf/ocean-of-tomorrow-2014_en.pdf).

These questions would also arise in connection to the Network due to the huge size of the region and the magnitude of (country or partner) participation necessary to span it. However, perspective should be focused on possibilities and opportunities that exist, as well as capacities or skills that can be brought together in such a collaborative undertaking. Regional cooperation is critically important due to the impossibility of setting boundaries for marine organisms based on their transboundary and mobile nature, which also makes regional conservation strategies a priority. Regional cooperation in ABS is encouraged by the Nagoya Protocol in Article 11.

The activities of the EU Micro B3 project involve taking of samples in internal waters, territorial sea, the Exclusive Economic Zone and the continental shelf and hence fall under national jurisdiction. It means that they fall under the ABS principles of the CBD and the Nagoya Protocol and not UNCLOS. Hence, any arrangements and conditions on taking and using marine microorganisms should be bilaterally agreed between the provider and the user. The user must seek the prior informed consent of the provider to access genetic resources, if this is required, and the user has to ensure compliance with the agreed terms as established mutually by both parties. As simple as this process sounds, it can be complex in practice and may aggravate the challenges mentioned above. In order to escape or ameliorate such challenges, the EU Micro B3 project developed a model access and benefit-sharing agreement which became part of the consortium agreement in line with Article 1.2 of the latter.[27]

The agreement sought to resolve legal challenges by selectively presenting some of the very crucial ABS issues, as follows:

Standard terms: due to the size of the project, it would be disorderly for each scientist or partner institution to enter into different terms and conditions with providers, some of which could be conflicting. Therefore, standard terms were agreed on so that all partners use an identical document. It became the only legally acceptable ABS agreement for the consortium on the basis of Article 1.2 of the consortium agreement.[28]

[27] Evanson Chege Kamau, Gerd Winter and Peter-Tobias Stoll (eds.), Research and Development on Genetic Resources: Public domain approaches in implementing the Nagoya Protocol (Routledge, 2015) 333, 334.

[28] ibid.

Access: while applying for an access permit, the provider would often require the applicant to provide thorough details of the project. Such details usually include a description of the genetic resources to be utilized. This can complicate things because at the stage of collecting the biological resource, the exact genetic resource might not be known–especially if the recipient were examining it for the first time. Therefore, the agreement introduced a novel approach by inserting a clause under the access provisions permitting the recipient to make description at a later stage.[29]

Auxiliary services: as part of their work, scientists often exchange material, may use laboratories of peers or source out some of the work. As a practice, many providers would try to eliminate each of these to maintain control over material and permitted use(s), which might otherwise be easily lost through parties who are not bound by contractual agreements. In order to strike a balanced deal with providers, the agreement included the so-called viral clause, which obliges the recipient of the material to pass contractual obligations to third parties.[30]

Pre-competitive microbial research: while complex and long ABS procedures impede scientific research, it is usually difficult to decide in advance which privileges to grant without jeopardizing the rights of the provider. On the other hand, a researcher runs the risk of being accused of a violation if a commercial potential is discovered from material that was accessed for purely scientific purposes, or being denied the permission to examine such a potential if the intent arises at a later stage. In order to avoid suspicion on the provider's side and minimize the risks for the researcher, the agreement allows the applicant to declare either a pure scientific intent, use for proprietary purposes, or both. It also allows a researcher who had accessed material for pure scientific purposes to come back to the provider and establish new mutually agreed terms if a commercial intent developed in the process of research without the risk of being penalized. Such a provision is called a "come-back" clause.

Disseminations of information: one of the vital considerations of research is the freedom and ability to publish results either immediately after research or following a reasonable embargo period. But it is also important that results from material which was accessed under terms of basic research are put in the public domain (and not kept secret for later proprietary use unless new mutually agreed terms are established for such use). The agreement strikes a balance between the two interests by subjecting (facilitated) access for basic use to the obligation to

[29] ibid., 341, 343.

[30] Ibid., 345ff.

publish, but also grants the freedom to publish without delay in all the databases listed in the agreement.[31]

Post-dissemination of information: in spite of existing practice that allows anyone to access public domain information and use it for any (ethical) use, the ABS discourse stakes out a more nuanced position in this issue. Many providers feel cheated when information based on material (and/or traditional knowledge associated with such material) that was accessed under facilitated conditions for basic use is later accessed by third parties, after its deposit in repositories or databases by the initial recipients, and used for commercial purposes without any benefit for the provider. To try and resolve this conundrum, the agreement requires the depositor of information to attach a condition upon depositing it obliging third parties to contact the original provider and establish mutually agreed terms if they intend to use the information for commercial purposes. Once the depositor does that, then his/her obligation in regard to downstream activities is fulfilled.[32]

Benefit sharing**:** the agreement suggests a number of non-monetary as well as monetary benefits that can be shared. Concerning the former, it is very interesting to note that the agreement commits to reports on proprietary use. This is exemplary because one of the concerns of providers is to track the value chain so the agreement in a way provides relief for the provider. But also in regard to monetary benefits it provides relief for the user because it allows monetary interests to be agreed upon later, maybe when monetization occurs, instead of making commitments that could prove hard to fulfill and may harm trust between users and providers.[33]

Such a model agreement is very useful for similar cooperative projects, as it is created by looking at practical challenges on the ground, offers flexibility and transparency, standardizes terms, and creates legal certainty for parties on both sides. But, can the EU Micro B3 agreement be used with ease by others, including developing countries?

One of the advantages of the Micro B3 agreement is that it contains a commentary which makes it easier for the user to understand how it can be used. In addition, it offers alternative provisions in regard to various issues, giving the parties an option to strike provisions that do not apply to their circumstances. Therefore, it is not a disadvantage that the agreement has many articles, but an advantage in that it approaches the matter broadly and thus covers most

[31] ibid., 347ff.

[32] ibid., 348f.

[33] ibid., 355ff.

relevant issues in ABS, and also gives parties the freedom to consciously decide which issues are important for them. Apart from being easily convertible to fit the parties' interests, the agreement can be used:[34] 1) as a reference to raise awareness on important contracting issues in ABS; 2) as a blueprint to compare with other agreements or issue-specific provisions that are put before the (potential) user by the providing party; and 3) as a fallback text. In cases of inertia, when the potential user fails to negotiate an agreement on its own terms, the model agreement can be presented to the providing party as a possible text with the possibility of modifying it to satisfy the parties' needs and interests.

As already stated, the agreement covers public domain, proprietary and hybrid uses. It does not advocate for any approach in particular, but rather offers flexibility that is inevitably crucial in R&D on genetic resources. Likewise, it does not make new definitions or introduce new approaches to public domain or proprietary rights. Therefore, the agreement does not in any way contradict the WTO-TRIPS agreement. One problem, of course, lies in the fact that currently, intellectual property rights based on innovations or inventions from genetic resources and associated traditional knowledge are not yet well-addressed under the WTO-TRIPS system. There is ongoing work at WIPO to see how these issues can be addressed, in particular in regard to tracking the use of genetic resources and associated traditional knowledge and disclosure in patent applications.[35]

Conclusion

By its nature, the Conference, and similar forums, are starting points for making progress in ABS research, and not end points. In and of itself, the Conference was a productive exchange of ideas and interdisciplinary perspectives. It also provided a basis for greater cooperation between individuals and institutions of the represented nations. However, the ultimate success of the Conference depends upon the further steps taken by the members of the Network. In particular, the SNU Center for Energy and Environmental Law and Policy proposed a series of additional steps. First, participant organizations that did not join the Network at the Conference should seriously consider membership, and existing Network members are instrumental to providing encouragement and support to prospective members, as well as in modelling the benefits of membership. Second, Network members must discuss and schedule future meetings. On this point, participation in a special event at the 2016 IUCN World Conservation Congress in September 2016 proved an important and meaningful further step

[34] See generally ibid., 290f.

[35] ibid., 28f.

for the members of the Network, but that event must be only one of a series of meetings for members to sustain their commitment to mutual cooperation. Third, Network members should develop and schedule workshops with public and private institutions in order to deepen the integration of the Network with existing and future activities. Fourth and finally, Network members should formulate a plan for cooperating with the ABS Initiative Secretariat and such other international bodies and actors as its members may propose.

Moving forward, it will be imperative to build on these practical first steps in order to fully realize the vision of optimized scientific research and policy collaboration. In the longer term, the Network should forge closer partnerships with other international organizations. Participation in international forums began with the IUCN World Conservation Congress, but should become more frequent and more interactive with time.

CLINICAL LEGAL EDUCATION AND ENVIRONMENTAL LAW: THE BENEFITS OF NON-CASEWORK APPROACHES

Evan Hamman*

Clinical Legal Education (CLE) is one of the biggest success stories in modern legal education. The 'first wave' of clinics arose out of the United States in the early part of the 20th century and spread quickly in the 1960s and 1970s to Australia, Canada and the United Kingdom. Today, CLE is a global phenomenon [1] and focuses on developing a range of student skills in 'learning by doing' often in small teams and often, though not always, on issues of social justice such as poverty, the environment, human rights, discrimination, criminal law and consumer law.[2]

The typical clinic model involves law students working with community lawyers on 'real life' cases. Various approaches to CLE delivery exist including agency models, university partnerships and in-house clinics.[3] There is certainly no 'one size fits all' to CLE and issues of insurance, resourcing, supervision, speciality, and assessment all need to be carefully considered when establishing a clinic.[4]

Environmental Law Clinics (ELCs) are generally thought to be a specialist type of CLE. Other areas of law that have lent themselves to specialist clinics include: human rights; immigration; domestic violence; and consumer credit. Though a comprehensive answer to 'what is an ELC?' does not appear to have be settled, we might assume, for the purposes of this short piece anyway, that an ELC is a specialist approach to CLE which aims to promote an in depth

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[1] See for instance, Frank S. Bloch (ed.) *The Global Clinical Movement: Educating Lawyers for Social Justice* (Oxford University Press, 2011); and also: Richard J., Wilson (2004) Training for Justice: The Global Reach of Clinical Legal Education. 22(421) Penn State International Law Review.

[2] Giddings provides probably the most comprehensive (and as he remarks, probably the most student-centred) definition of CLE in the literature. See: Jeff Giddings, *Promoting Justice through Clinical Legal Education* (Justice Press, 2013) 14.

[3] ibid.

[4] Consider for instance the best practice guidelines for CLE in Australia: Council of Australian Law Deans (2012) 'Best Practice Guidelines for Clinical Legal Education' 4; and in the United States: Roy Stuckey et al., 'Best Practices for Legal Education: A Vision and a Road Map (Clinical Legal Education Association, 2007).

understanding of the content of environmental law, with a particular focus on the skills and processes necessary for its practice.

Existing ELCs, like the thirty-five that exist in the United States,[5] and the few dozen or so that exist elsewhere in the world,[6] have seemed to focus on public interest litigation (or 'impact litigation') where students assist lawyers and their clients in gathering and analysing evidence, preparing arguments and presenting cases. Though such models appear to be relatively successful, I argue that ELCs are also well-suited to non-casework tasks, such as law reform, community education, policy development and even media and communications.[7] But what might be the benefits of such models?

Well, firstly, there are the community benefits. The dedication of students to non-casework tasks can be invaluable for cash-strapped and time poor community groups (or government departments) and are likely to provide longer term and deeper solutions to social dilemmas than encountered in individual cases. In this regard, non-casework clinics might closely resemble successful 'community lawyering' models of delivering CLE.[8]

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[5] Examples in the United States, to name a few, include the law schools of Harvard, Yale, Chicago, Washington, Maryland, Duke, Tulane and Pace University.

[6] Examples of specialists ELCs in China include: Sun Yet-Sen University in Guangzhou, Chinese University of Politics and Law, An Hui University and Wuhan University. In South and Central America, examples include: Medellin University and Los Andes University (both in Colombia), Chile's Facultad de Derecho at the Universidad de Chile; the Federal University of Mato Grossoa in Brasil; a 'year-round' ELC at the University of Costa Rica (UCR) and the University of Buenos Aires in Argentina. Australia has ELCs at Queensland University of Technology, University of Queensland, the University of New South Wales, and at Macquarie University where students intern at the New South Wales Land and Environment Court.

[7] The arguments in this note are based largely on my own thinking as well as my experience in the supervision and coordination of a non-casework ELC in Queensland, Australia. An example of such an ELC which I have been involved with is described in Evan Hamman et al., (2014) Pro bono partnerships in environmental law: enhancing outcomes for universities and CLCs. 39(2) Alternative Law Journal 115-119.The QUT model has its challenges including difficulty in attracting non-law students, consistent resourcing and administration, and maintaining stakeholder relations in an era of changing human resources, but on the whole reports from students have been overwhelmingly positive.

[8] For an excellent overview of the community lawyering model, see Karen Tokarz et al 'Conversations on Community Lawyering: The Newest (Oldest) Wave in Clinical Legal Education' (2008) 28 Washington Journal of Law and Policy 359.

Secondly, interdisciplinary opportunities (and challenges) abound in environmental law, and law schools would do well to promote cooperative approaches to experiential learning involving other disciplines such as environmental science, media and communications, business, information technology, social work and design. Such opportunities more accurately represent the 'real' relationships environmental advocates are likely to encounter post-graduation. Working in and across multidisciplinary teams also encourages more effective problem solving skills, including communication, negotiation and time management.[9]
Thirdly, ELCs based on non-casework approaches can help students feel a sense of achievement, relevance and closure in the tasks they complete. The practice of litigation, and particularly public interest litigation, is notoriously time consuming and complex. Students may only work on a sliver of a file and may never see it through to completion. Moreover, as most public interest litigants would attest, the rather tedious processes of interlocutory hearings, discovery, correspondence and the like certainly does not resemble ErinBrockovich!

And lastly, there is I think a far deeper pedagogical reason to explore non-casework models, and that has to do with the changing needs of our profession. Law graduates, in many parts of the world, are increasingly hard pressed to find careers in the 'pure' practice of law. The market is flooded with lawyers, and environmental litigation is often only a small (albeit important) part of what environmental advocates do.[10] The fact of the matter is that many environmental lawyers will never step foot inside a courtroom, but still provide valuable work in the areas of research, advice, compliance, transactions, policy and law reform. We have a responsibility to expose students to such career paths, whilst at the same time maintaining their interest in sustainability and access to justice.

In the end, the challenges of the future will require environmental advocates to cooperate and innovate, to think outside the box and across borders, to work with NGOs, governments and private enterprise and to develop new solutions to complex problems alongside economists,

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[9] Traditional case-based learning which is ubiquitous in law schools does little to develop these characterises in students. For a discussion of the new skills lawyers in the 21st century are likely to need, see Remus, Dana, Out of Practice: The Twenty-First Century Legal Profession (October 1, 2012). Duke Law Journal, Forthcoming. Available at SSRN: http://ssrn.com/abstract=2344888 or http://dx.doi.org/10.2139/ssrn.2344888

[10] See for instance Heidi Gorovitz Robertson, Methods for Teaching Environmental Law: Some Thoughts on Providing Access to the Environmental Law System, 23 Columbia Journal of Environmental Law 237 (1998).

scientists and political activists.[11] Non-casework models have an important role to play in this regard. Accordingly, we would do well to broaden the types of learning experiences we offer students.

[11] Non-casework ELCs are not without their challenges of course. As Hurwitz remarks, one of the risks non-casework clinics is they may be 'lawyer-driven' and "convey to students the wrong message about the correct motivation for doing the work, which is to use the legal system to struggle for social justice for the poor, not to empower lawyers to determine in the abstract what is in the public interest." See Deena R. Hurwitz, Lawyering for Justice and the Inevitability of International Human Rights Clinics, 28 Yale J. Int'l L. 505 (2003).

THE ROLE OF THE IUCN ACADEMY OF ENVIRONMENTAL LAW IN PROMOTING THE TEACHING OF ENVIRONMENTAL LAW

Rob Fowler*

Introduction

One of the keys to the effective operation of environmental law is to have lawyers knowledgeable in this area who can contribute to the effective implementation and enforcement of such laws.[1] This is best accomplished by providing access for law students to a soundly taught course in environmental law. Otherwise, environmental law can present a formidable challenge for practicing lawyers who have to try to understand its intricacies without the benefit of any prior exposure to, or training, in this area. The lack of lawyers and judges with a clear understanding of environmental law can impede the application of environmental legislation in an appropriate manner and undermine efforts to protect and conserve the environment and promote sustainable development.

However, gaining access to an environmental law course can prove difficult for many law students at present. Most law courses in Western countries regrettably offer environmental law only as an elective, rather than as part of the core, compulsory law curriculum.[2] As a result,

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The author wishes to acknowledge the support and advice provided by Ms. Christina Pak, Senior Counsel, Office of the General Counsel, Asian Development Bank, in connection with the project activities described in this article.

[1] Lawyers may be involved professionally in the field of environmental law in a number of ways, including working for governments as prosecutors, legal and policy advisers or legislative drafters. They may also work in private law firms to advise and represent industry and other clients on their environmental law obligations. In some instances, particularly in the United States, private law firms may specialise in pursuing public interest environmental litigation. Environmental lawyers also may work “in house” as legal counsel, both within large corporations and environmental non-government organisations. The latter may include both advocacy organisations and those devoted specifically to public interest environmental litigation.

[2] Despite the extensive growth in both national and international environmental laws over the past forty to fifty years, the authorities responsible for the accreditation of law degrees in many countries have

only a small proportion of law graduates in these countries are likely to have any knowledge of environmental law. And in many non-Western countries, environmental law is only just emerging as a recognised field of law and is either not yet being taught or is being taught by scholars with limited prior knowledge or experience in the field.

Interestingly, environmental law now is a compulsory subject within the law curriculum in three of the most populous countries in the world (India, China and Indonesia) where many pressing environmental issues need to be faced. But even in these countries, there is a dearth of legal scholars who are equipped to teach the subject and the adequacy of many of the courses that are taught at present is questionable. The scale of the challenge involved in providing law students with access to a suitable environmental law course is evident from the circumstances in China alone. There are over 600 Law Schools in China, but, despite the compulsory status of the subject, it is estimated that only about one third of these institutions are presently able to provide a soundly taught environmental law course.[3]

The need to recruit and train teachers in this field within Law Schools across many countries, particularly in the less-developed regions of the word, is manifest. In response to this need, the IUCN Academy of Environmental Law (IUCNAEL) has devoted considerable effort to designing and deploying a five-day "Training the Teachers" (TTT) program. In this article, the latest TTT-related activities of IUCNAEL, which are being undertaken in Asia with the support of the Asian Development Bank (ADB), will be described and the benefits arising from such activities will be evaluated. The scope for future, similar activities beyond the Asian region will also be considered.

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been slow to acknowledge the contemporary relevance and importance of this subject within the law curriculum and Law Schools themselves have been reluctant to add environmental law to the list of established core subjects. A rare exception in this regard has occurred recently with respect to the author's own Law School at the University of South Australia, which decided in April 2017 to include a course in Environmental and Natural Resources Law in its core curriculum from 2018 onwards. This is believed to be the first Law School to do so in Australia, and possibly one of the first do to so in any Western country.

[3] This observation is based, first, on personal consultations by the author with a number of leading environmental law scholars in China; second, on feed-back received by the author during the conduct of several teacher-training courses in that country between 2011 and 2106; and thirdly, on a recent survey of environmental law teaching in China that is being conducted as part of a wider study of the state of environmental law teaching in Asia which is still in preparation and expected to be published in late 2017 by the Asian Development Bank and the IUCN Academy of Environmental Law (see further below).

A short history of the development of IUCNAEL's Training the Teachers (TTT) courses

When the IUCNAEL was established in 2002, it provided for the first time a suitable forum for environmental scholars from around the world to network with each other in relation to both their research and teaching in environmental law. In 2005, IUCNAEL established a Teaching and Capacity-building Committee which then resolved to afford the highest priority to developing a program to advance the teaching of environmental law, particularly in the many less-developed countries where the need for such teaching is the greatest. The Committee spent several years in developing a detailed template for a Training the Teachers (TTT) course which, at the urging of the Governing Board of the Academy, evolved into a dual model – first, an advanced Training the Trainers course for scholars with some substantial experience in environmental law; and second, a "basic" Training the Teachers course for scholars who are new to, or relatively inexperienced in, the teaching of environmental law. The idea behind this scheme is to use experienced scholars who have undertaken the advanced TTT course to then contribute to the delivery of the basic version in their own country.

The difficulty that has faced IUCNAEL, having developed this detailed, dual-mode program, has been to secure the financial resources required to support its delivery in relevant countries. Whilst there are many highly experienced scholars within the ranks of the Academy who stand ready to contribute to this project, there is a need for additional resources to support the participation of legal scholars in such training (for example, transport, accommodation, meals and teaching materials). Despite numerous approaches by IUCNAEL to a range of institutions, this funding has proved difficult to obtain.

However, in 2011-12, thanks to some support provided by Vermont Law School in connection with a USAID-supported project being conducted by it in China, IUCNAEL delivered two pilot Training the Trainers programs in that country – in Wuhan (2011) and Chongqing (2013). These courses were very well- received by a total of some fifty participants across the two courses and served to confirm the value and effectiveness of the course design developed by IUCNAEL. Unfortunately, it was not possible to follow up thereafter with the delivery of basic Training the Teachers courses involving those Chinese scholars who had "graduated" from these two, advanced courses, due to a lack of the necessary resources. However, this difficulty is now being addressed by IUCNAEL on a broader scale involving fourteen countries across the entire Asian region, thanks to support being provided for this purpose by the Asian Development Bank.

The IUCNAEL-Asian Development Bank (ADB) TTT Project (2015-Present)

In 2014, as a result of some persuasive advocacy on behalf of IUCNAEL on the part of Professor Lye Lin Heng from National University of Singapore Law School[4], the Asian Development Bank committed to funding the delivery by IUCNAEL of two advanced Train the Trainers courses at its headquarters in Manila during 2015. As noted by Bubna-Litic in her report in this Journal on these courses,[5] there was a strong appreciation expressed by the 58 participants for both their design and the emphasis on demonstrating innovative teaching methodologies.[6]

On the back of this success, the Asian Development Bank committed in late 2015 to supporting the delivery by IUCNAEL of four "in-country" courses during 2016. These have been essentially the "basic" version of the TTT course, with participants from the 2015 advanced TTT courses joining with IUCNAEL trainers in their delivery in the respective countries. This article will provide details of these latest TTT activities by IUCNAEL in Asia and some observations concerning the benefits that have arisen from them. The objectives of this project are neatly summarised in the following extract from a promotional brochure produced by ADB during 2016:

> "The aim of the technical assistance is to strengthen the capacity of environmental law professors and lecturers in Asia and the Pacific because of their critical role in educating the environmental law profession and creating the pipeline of teachers, judges, public interest lawyers, civil servants and other environmental law practitioners. If the legal education system has no, or insufficient, capacity to educate teachers and lawyers for these positions, then the

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[4] Professor Lye was involved in conducting a previous TTT program at NUS in 1996-7 with the support of the Asian Development Bank; this program involved an extended period of training for environmental law scholars from across the Asian region in Singapore, but it did not extend to the conduct of in-country TTT courses of the kind envisaged in IUCNAEL's TTT "basic" course. A significant knowledge product emerged from this earlier project: see Craig, DG, Robinson, NA and Koh, K-L, CAPACITY-BUILDING FOR ENVIRONMENTAL LAW IN THE ASIA-PACIFIC REGION: APPROACHES AND RESOURCES, IUCN, 2002.

[5] Bubna-Litic, K., "Strengthening Capacity for environmental Law in the Asia-Pacific: Developing Environmental Law Champions", *IUCNAEL e-Journal*, Issue 7, 2016, 130.

[6] It has been strongly urged within IUCNAEL from the outset that the purpose of its TTT courses is to promote the sound teaching of environmental law in a manner that is likely to inspire students, not simply to pass on information concerning the substantive elements of environmental law. As a result, the TTT courses focus more on methodology than substantive content – something that it is often difficult at first for those participating in them to fully appreciate, but which becomes more evident and strongly appreciated as the courses progress over five days.

> implementation and enforcement of environmental laws will inevitably be compromised through a lack of qualified educators and lawyers to assist in these areas."[7]

The 2016 in-country TTT courses

Four in-country courses were delivered during 2016 in Putrajaya, Malaysia (9-13 May); Hanoi, Vietnam (23-27 May); Cebu, Philippines (22-26 August) and Beijing, People's Republic of China (17-21 October). In each instance, a team of "international" trainers selected by IUCNAEL[8] worked alongside a number of "local" trainers,[9] most of whom had undertaken the Training the Trainers program in Manila in the previous year. In each instance, IUCNAEL and ADB worked with a "host institution" in the relevant country, these being the Faculty of Law, Universiti Kebangsaan Malaysia (Malaysia); Hanoi Law University (Vietnam) ; University of Cebu College of Law(the Philippines); and Peking University Law School (China).

IUCNAEL was fortunate to recruit a former member of its Secretariat, Ms. Winnie Carruth, to work as the International Project Manager for this project, which involved her spending a considerable proportion of her time working out of an office supplied by ADB in Manila. The author served as IUCNAEL's Project Coordinator, handling contractual and other relations with ADB, and also as the "team leader" for the courses conducted in the Philippines and

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[7] Asian Development Bank, ADB Regional Capacity Development Technical Assistance, Strengthening Capacity for Environmental Law in the Asia-Pacific, Developing Environmental Law Champions (unpublished brochure on file with the author).

[8] The IUCNAEL Teams were as follows: Malaysia - Associate Professor Karen Bubna-Litic, Professor Gerthie Mayo-Anda and Professor Shawkat Alam; Vietnam – Associate Professor Karen Bubna-Litic; Professor Gerthie Mayo-Anda and Professor Carmen Gonzalez; the Philippines – Adjunct Professor Rob Fowler, Professor Gerthie Mayo-Anda, Professor Donna Craig and Professor Alexander Paterson; and China – Adjunct Professor Rob Fowler, Professor Ben Boer and Professor Jolene Lin.in each instance, these teams were selected by IUCNAEL and ADB after a call to Academy members for expressions of interest. Selection involved applying criteria developed by the Governing Board of the Academy that included achieving a balance between prior experience in the delivery of the TTT program and/or in the relevant country and affording the opportunity for new trainers to be recruited to each training team.

[9] The local trainers were as follows: Malaysia – Professor Dr. Rohimi Shapiree, Dr. Hanim Kamaruddin and Associate Professor Dr. Rasyikah Md Khalid; Vietnam – Dr. Hoang Ly Anh, Dr. Nguyen Van Phuong, Dr. Vu Duyen Thuy, Associate Professor Dr. Pham Huu Nghi, Mr. Vo Trung Tin and Dr. Nguyen Lan Nguyen; Philippines – Professor Gloria Ramos, Professor Rose-Liza Osorio, Professor Amado Maralit and Professor Maria Hernandez-Beloso; and China – Professor Wang Jin, Professor Song Ying and Professor Wang Shekun.

China. Associate Professor Karen Bubna-Litic served as team leader for the other two courses delivered in Malaysia and Vietnam.

Program participants

The selection process for the participants in each in-country TTT course relied inevitably on the efforts of the host institution to advertise the program amongst legal scholars within their country and to attract suitably motivated applicants. The final approval of the participants identified by the host institution was issued jointly by ADB and IUCNAEL to the host institution. The composition of the participants in these first four programs proved slightly surprising in two respects. First, in terms of gender, sixty percent (63 out of 105) were female. This was a sharp increase on the proportion of females in the two Training the Trainers programs delivered in Manila during 2015, where 37.5% of participants (22 out of 57) were female. This difference may be explained in part by the fact that those attending the 2015 programs were mostly senior, experienced scholars who had specialized in environmental law for some years, where an historical bias towards males was therefore likely. On the other hand, it seems clear that it is women in countries such as Malaysia (14 out of 16 participants) and Vietnam (22 out of 28 participants), who appear to be the most interested in taking up the teaching of environmental law as a serious career commitment. In the other two countries – Philippines and PRC – women in each instance represented slightly less than half of all the participants. It is interesting to speculate as to whether there may be cultural or other reasons why it is predominantly women who are taking up the teaching of environmental law in particular countries. This is a dynamic that it will be interesting to monitor in future in-country TTT programs.

The second surprise was the number of participants across the four in-country programs who already had engaged for several years in the teaching of environmental law. These represented a substantial majority of the participants across the four programs, with only a small number of participants in each program indicating that they had no previous experience of teaching environmental law. It was very apparent that these participants were thirsty for advice and support in relation to how they could improve their teaching in this field. However, it is also important to continue to expand the existing cohort of skilled environmental law teachers across Asia, particularly to ensure that the subject is made available to students in Law Schools where it has not previously been taught. To this end, it may be worthwhile to urge host institutions when they are seeking applications for future in-country programs to pay particular attention to identifying a reasonable number of legal scholars who are interested in taking up the teaching of environmental law.

The question of the participants' English language proficiency required specific attention in two of the four in-country programs. In both Vietnam and China, this required the use of simultaneous interpreters for all sessions, enabling both the translation of presentations by the international trainers in plenary sessions and the translation of discussions by participants when divided into small groups for particular activities. In both instances, the interpreters sourced by ADB were of outstanding ability and facilitated the successful delivery of the programs. In Malaysia and the Philippines, the participants were proficient in English and no interpreter services were required.

The 105 participants across the four programs displayed exceptional enthusiasm for the training programs. They engaged actively in the various methodology exercises demonstrated by the international trainers and expressed a strong commitment in the final session of each program and through their course evaluations to introducing new teaching methodologies into their own courses in the immediate future.

Program structure, content and materials

The structure of the five-day course delivered in the two Training-the Trainers programs in 2015 was used as the basis for the design of each of the four in-country programs in 2016. In each instance, a planning meeting was held by the IUCNAEL international trainers' team leader and the IUCNAEL TTT Project Manager (Ms. Winnie Carruth) approximately two months before the scheduled dates for delivery of the program. These meetings were held at the relevant host institution and involved two days of detailed discussion with the local trainers concerning the course structure and content, logistical arrangements for catering and the field trip, inspection of the training facilities and design of the various teaching methodology exercises to ensure they were adapted to each country's particular environmental laws. In each instance, some modifications to the course structure were made in response to input from the local trainers concerning particular areas of interest in terms of substantive environmental law, but the basic division between content and methodology remained intact, with the latter having the stronger priority.

The strong focus on teaching methodology, which was endorsed by participants in the 2015 TTT programs, proved to be equally popular with participants in the 2016 in-country programs, but this also presented some challenges for them. There appears to be an educational cultural dynamic applicable to most, if not all, Asian countries of reliance upon the lecture format as the primary teaching method. The Confucian tradition of regarding the teacher as a learned leader and the font of all relevant knowledge, which allows only a passive learning role for

students, appears to be deeply embedded in Asian legal education. In seeking to expose the participants to alternative teaching models that embraced various “active-learning” methodologies, there was cause for some apprehension on the part of the international trainers as to how readily these innovative alternatives would be embraced by them. This proved to be an unnecessary caution, as there was virtually no resistance by the end of each program from participants to the idea of trialling and adopting various new teaching methodologies such as small-group activities, role-play exercises, field trips and a reflective diary.

There are pragmatic reasons why lecturing will be likely to remain central to many environmental law courses in Asian countries, including the size of classes in countries such as China and India, and prescriptive measures on the part of some universities or education authorities that mandate lecturing as the primary teaching format. However, the in-country programs have opened the eyes of Asian environmental law teachers to the possibilities with respect to additional methodologies that may be employed alongside lectures in appropriate circumstances, and there appears to be a strong appetite amongst the participants for exploring such options.

The materials for the in-country programs in Malaysia and Vietnam were printed by the host institutions, but for the two subsequent programs in the Philippines and China it was decided to organize the materials on ADB’s Google Drive and to then arrange for their circulation to participants in the week prior to the program by the host institution via an email providing a link to the Google Drive. This approach worked successfully for the Philippines program but it encountered some complications in China, where access to the Google Drive was not possible. As a result, the materials were sent by the host institution by email, but it proved necessary to make additional hard copies of some of the materials at the training. The goal of distributing the course materials in advance of the program by electronic means is commendable both from an environmental perspective and in enabling the participants to familiarize themselves with the materials prior to the start of the program. With further experience in using this approach, it can be expected that it should work well in future in-country programs.

Outcomes of the 2016 in-country TTT courses

It is still too early to assess the long-term outcomes from these four in-country TTT programs, but there is evidence of one immediate result. This is the commitment made in the concluding session of each of the four programs by the respective participants to the establishment of a

new network in their country to maintain communications amongst themselves beyond the training and through which to plan various future activities. The structural form of these networks varies according to the particular circumstances in each of the four countries, with only the Malaysian participants choosing to establish a new association with a formal structure. Instead, the use of social media formats such as a Facebook group have generally been preferred.

The establishment of these in-country networks provides a vehicle not only for maintaining the momentum developed amongst participants from the TTT programs, but also for reaching out to other legal scholars in the relevant country who were not involved in the programs to disseminate the learnings gained through them. This has been a spontaneous outcome of all four programs delivered during 2016 that was generated at the initiative of the participants themselves. It clearly reflects an enthusiasm for, and commitment to, bettering the teaching of environmental law in their respective countries that has been generated through these programs.

As has been already noted, feed-back from the participants through their course evaluations also indicated a wide-spread commitment by participants in all four programs to introducing new teaching methods into their environmental law courses at the next opportunity.

Other related activities

Alongside the four in-country TTT courses, IUCNAEL and ADB collaborated in two other forms of activity pursuant to the implementation agreement signed by them. These were a Roundtable meeting in Manila for participants from the 2015 advanced courses and the development of several types of “knowledge products.

The Roundtable for Environmental Law Champions

ADB and the IUCNAEL conducted a Roundtable for the Environmental Law Champions in June, 2016 in Manila, Philippines. There were 33 participants (16 female and 17 male) who attended this first Roundtable event. These participants had previously attended one of the two TTT courses held in Manila, Philippines in 2015. There were also small delegations of participants from the in-country courses conducted just prior to the Roundtable in Malaysia and Vietnam.

The purpose of the Roundtable was for environmental law “champions” from the two Manila TTT programs conducted in 2015 to come together to share their stories and experiences on what they had done in their teaching of environmental law or research on environmental law

since attending these programs. Some very inspiring stories were told by various law professors during the Roundtable concerning the initiatives they have undertaken with respect to their own teaching, particularly in adopting new teaching methods learned from the TTT programs.

The IUCNAEL and ADB also used this opportunity to identify an in-country focal point for each of the fourteen Developing Member Countries of ADB involved in this project. Most of these participants will serve as leaders for the development and delivery of a future TTT programs in their own country, whilst the four from those countries where a program has already been delivered will serve as a contact point for ADB and IUCNAEL with the new networks of environmental law teachers established in each of these countries.

Knowledge products

The implementation agreement between ADB and IUCNAEL provided for four separate knowledge products to be developed alongside the various training activities described above. These are a trainers' manual, a TTT web-site, a video documentary concerning the project and a report on the state of environmental law teaching in Asia.

With respect to the trainers' manual, a repository for all course materials developed for the four in-country programs has been established by ADB on Google Drive. This includes the detailed course outline, all presentations developed by the international and local trainers and various teaching methodology exercises, including tutorial problems, a role play exercise and an international environmental law research exercise. There is also an overview document that details the various teaching methodologies demonstrated during the program. It is envisaged that these materials will provide the basis for a Trainers Manual that can be made available to other parties in the future with the approval of both IUCNAEL and ADB. Such approval would be conditional upon undertakings being given not to substantially alter the materials and to ensure that any TTT course based on these materials is delivered to an acceptable standard.

A template for the TTT web-site design has been established that allows for various inter-active elements, including a map-based directory of all TTT participants ("Environmental Law Champions") and details of TTT programs already delivered. There will be additional source materials related to environmental law in the Asia region added to the web-site in the first half of 2017, with the aim of having it go live towards the middle of 2107.

During the delivery of the four in-country programs, video interviews were recorded by an ADB team with a number of the international and local trainers, and some program participants. These have already been compiled into an introductory video that presents the aims and intended outcomes of the technical assistance. It is intended to add further to this video documentary in 2017, and to also compile video profiles of some of the Asian Environmental Law Champions.

To assist the preparation of a report on the state of teaching of environmental law in Asia, the IUCNAEL Project Manager, Ms. Winnie Carruth, administered surveys to the participants in the four in-country TTT courses and the Roundtable event. From the ninety responses received, a first draft of a report on the teaching of environmental law in Asia has been prepared. Following feed-back from ADB on this report, a further draft was produced in early 2017, drawing on further enquiries with the focal points in a number of countries. It is intended that this report will be developed to a level where it is suitable for publication by ADB and IUCNAEL later in 2017. This report will provide a unique insight into the extent to which environmental law is being taught currently in Asian countries and highlight the need to continue to train more scholars to pursue teaching in this filed.

Conclusion: The future directions of IUCNAEL's TTT activities

Applications have been received by ADB and IUCNAEL to conduct in-country TTT courses in ten other Asian countries besides those in which courses have already been delivered. ADB has committed further funds to the delivery of another three courses during 2017, in Thailand, Cambodia (with scholars from Laos also to participate) and Myanmar. Hopefully, if further funds are able to be made available by ADB later in 2017, it will be possible to extend the project in 2018 and beyond to countries in South Asia (India, Pakistan, Bangladesh, Nepal and Sri Lanka) and Indonesia, whilst also conducting a second course in China (in the South-west region).

Looking beyond these possibilities for further in-country courses in Asia, this project offers tantalising opportunities to foster both teaching and research in environmental law across the Asian region, and also within the sub-regions of Asia. The establishment of national networks of committed environmental law champions as a result of the delivery of the in-country TTT courses offers the potential for future collaborative activities to be fostered across these networks, at first instance most possibly in a sub-regional context (for example, the Mekong countries, South Asia and South-East Asia). These collaborations could take the form of actual meetings amongst scholars from time to time, but also could be facilitated by other means, in particular electronic communications. The TTT project web-site could provide a valuable tool

in this regard. Ultimately, it may be possible to envision a regular Asian Colloquium in Environmental Law, along similar lines to the global Colloquium conducted by IUCNAEL each year.

It is essential in designing a project such as the ADB-IUCNAEL TTT program to envision a long-term, durable outcome that will extend beyond the period of the actual training activities. In this particular instance, the foundations are being laid for future collaborative activity through the establishment of national networks of environmental law champions, and it is essential that these are supported and fertilised to ensure their longer-term existence and effectiveness. There is a clear role for IUCNAEL in the future, and beyond the immediate duration of the current TTT project, in serving as a facilitator and support-base for such activities.

Looking beyond the Asian context, it now seems clear that the model for the training of teachers of environmental law that has been developed by IUCNAEL functions well in terms of inspiring scholars to teach environmental law in a manner that will provide a sound learning experience to their students and that, hopefully, also will encourage many of these students to explore a career in environmental law once they have graduated. This model is capable of being deployed elsewhere, provided the resources needed to support its delivery can be secured. An obvious target for IUCNAEL's future TTT activities is Africa, where similar needs exist as those that have been identified by ADB in Asia. The idea of approaching a regional development bank for support for such activities is particularly attractive, given the outstanding success of the initiative in Asia that has been generously supported by the Asian Development Bank. In this regard, and after some fifteen years since its establishment, IUCNAEL is still only in the early stages of achieving its goal to promote the sound teaching of environmental law in Law Schools around the globe.

COUNTRY REPORT: AUSTRIA

Farewell to at least some restrictions on access to justice

Birgit Hollaus*

Introduction

Since 2005, Austria is party to the *Aarhus Convention*,[1] which requires amongst other things access to legal remedies in environmental matters. More than ten years later, implementation of the *Aarhus Convention* in the right-based Austrian system is still ongoing, and constitutes a difficult and delicate task. With a rather reluctant legislator, it is Austria's administrative courts, often induced by case law of the Court of Justice of the European Union (CJEU), that are at centre stage of legal developments.

The year 2016 has yet again been marked by several judgments assessing Austrian national law in light of the *Aarhus Convention* and Aarhus implementing EU law. The present country report discusses these judgments and points to ongoing legislative procedures, where appropriate.

Background[2]

The national legal framework for the permitting of large-scale projects is largely predetermined by the EU *EIA*[3] *and IE Directives;*[4] both of which aim to give effect to the

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[1] UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, 25 June 1998, Aarhus; available at http://www.unece.org/env/pp/treatytext.html.

[2] For a more detailed background see Madner, Verena, '*Study on the Implementation of Article 9.3 and 9.4 of the Aarhus Convention in 10 of the Member States of the European Union + Croatia. Austria*' [2013], available at http://ec.europa.eu/environment/aarhus/access_studies.htm.

[3] Directive 2011/92/EU of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment [2012] OJ L 26/1.

[4] Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) [2010] OJ L 334/17.

Aarhus Convention's public participation[5] and access to justice requirements[6]. The Austrian legislator implemented the *EIA Directive* through its *EIA Act.*[7] In so doing, the legislator conceptualised the EIA permitting procedure as a one-stop-shop meaning that the EIA authority applies all national laws – environmental and others such as the *Industrial Code*[8] – that are relevant to the implementation of the project in this one procedure;[9] with the resulting EIA permit, no further (sectoral) permitting is required. Environmental organisations and neighbours are parties to the EIA permitting procedure and have the right to legal review ('complaint') with the Federal Administrative Court (BVwG), and access to the Administrative Court (VwGH) as the last instance for general matters of administrative law ('revision').

If no EIA is required, projects usually still require several individual environmental and other permits ('sectoral permitting procedures'), such as a species protection permit, a forest clearance permit and an industrial installation permit. The different Austrian legislators regulating environmental aspects – depending on the sector either the federal legislator or the nine provincial legislators – have so far not fully implemented the *Aarhus Convention's* public participation and access to justice requirements in respect of such other permitting procedures. This creates a situation, where in permitting procedures other than EIA, for example in the area of nature protection, an environmental organisation has neither standing nor the right to legal review.[10] Should neighbours as an exception have standing in these sectoral environmental permitting procedures, they are limited to defending their subjective public rights only, which do not include objective environmental rights.

Decisions Finding No EIA Is Required: What Rights for the 'Public Concerned'?

In its national *EIA Act*, the Austrian legislator introduced a so-called declaratory procedure. This procedure allows a developer, the Environmental Ombudsman and a co-operating authority to ask the EIA authority for a decision on whether a project requires an EIA. The decision is binding with the effect that another authority cannot decide the question differently.

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[5] Art 6 of the *Aarhus Convention*.

[6] Art 9(2) of the *Aarhus Convention*.

[7] *Environmental Impact Assessment Act 2000 – EIA Act* (UVP-G), Austrian Federal Law Gazette 1993/697, last amended by Austrian Federal Law Gazette I 2016/4.

[8] Austrian Industrial Code (GewO), Austrian Federal Law Gazette 1994/194, last amended by Austrian Federal Law Gazette I 2016/82.

[9] § 3(3) *EIA Act* 'consolidated development consent procedure'.

[10] Administrative Court of the Province Tyrol, LVwG-2015/15/3208-24.

Each year, around 100 of these declaratory procedures are being performed in Austria with approximately 83% of them resulting in a 'negative declaratory decision',[11] i.e. the EIA authority decides the project does not require an EIA. These negative declaratory decisions have placed environmental organisations and neighbours in an unfortunate position: Although they would be parties to an EIA, they are not involved as parties in the procedure deciding whether an EIA would be required; nor do they have the right to challenge the decision afterwards. Even where the project requires environmental or other permits other than an EIA ('sectoral permitting procedure'), neither environmental organisations nor neighbours could validly raise their concerns of an EIA being required due to the binding effect of the negative declaratory decision.

A 'Special Arrangement' for Environmental Organisations

Already in 2012, the European Commission highlighted that this situation with regard to environmental organisations was not in line with EU law and the *Aarhus Convention*.[12] According to the European Commission, environmental organisations as part of the 'public concerned' must have the possibility to challenge a decision that determines whether an EIA needs to be conducted. In order to avoid an EU infringement procedure, the Austrian legislator thus granted environmental organisations a right to challenge a negative declaratory decision, however without them first being party to the declaratory procedure.[13] This solution constitutes a 'special arrangement'[14] for the Austrian legal system as it decouples party rights and the (subsequent) right to a legal remedy.

In 2016, an environmental organisation challenged this 'special arrangement' before the Administrative Court. The organisation argued that the *EIA Directive* in implementing the *Aarhus Convention* would demand more than a mere right to have a declaratory decision reviewed. Environmental organisations, as part of the 'public concerned', were to be granted full party rights in the declaratory procedure itself. The Administrative Court however did not share this view. It held that with the 'special arrangement' of a right to review only, the Austrian legislator aimed to repair the shortcomings of national law highlighted by the European Commission but not more.[15]

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[11] Federal Ministry of Agriculture, Forestry, Environment and Water Management, '*UVP-Bericht 2015*' [2016] 12 et seq.

[12] Infringement Procedure 2012/2013.

[13] § 3(7a) *EIA Act*.

[14] RV 2252 XXIV. GP 5.

[15] VwGH Ro 2014/06/0008.

Another 'special arrangement' for neighbours?

The legal situation with regards to neighbours remained unaddressed until a preliminary ruling of the CJEU in 2015. In *Gruber,*[16] the CJEU found that the binding effect of a negative declaratory decision with regards to neighbours who had no right to participate in the declaratory procedure or to challenge the resulting decision was not compliant with Art 11 of the *EIA Directive*. Provided neighbours are part of the 'public concerned' within the meaning of Art 1(2) of the *EIA Directive* and fulfil the respective requirements of national law, the decision not to conduct an EIA can no longer have binding effect for them. Consequently, these neighbours as part of the 'public concerned' are no longer precluded from objecting to the negative declaratory decision.

In the absence of a statutory solution by the Austrian legislator, Austria's administrative courts have had to deal with the effects of the *Gruber* case in several judgments until mid-2016; they interpreted the national law in view of the judgment in order to allow neighbours to raise the issue of an EIA in the later sectoral permitting procedures.[17] Meanwhile, the Austrian legislator has opted for an amendment of the *EIA Act*:[18] Just as environmental organisations, neighbours now have the right to challenge a negative declaratory decision, without first being party to the declaratory procedure itself.[19]

What if no one has asked whether an EIA is required?

In case none of the entitled[20] ask for a declaratory procedure to establish whether an EIA was required, there is no declaratory decision to challenge for neighbours. Rather, the project applicant would initiate sectoral permitting procedures in which neighbours only have certain enforceable party rights ('subjective public rights'). The objection that an EIA is required does not constitute such a subjective party right enforceable by neighbours. Thus, in a situation where no one has asked for a declaratory procedure, neighbours were left without a legal remedy even after *Gruber*.

The Austrian administrative courts assessed this situation in 2016 and found that *Gruber* demonstrates the necessity of a conform interpretation of Austrian law in light of EU law:[21]

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[16] Case C-570/13 *Gruber* (CJEU, 16 April 2015).

[17] Kager, '*Neues zur Parteistellung in der UVP − Teil 1*' [2016] ZVG 112 et seqq.

[18] Austrian Federal Law Gazette I 2016/4.

[19] VwGH Ro 2015/06/0024.

[20] This is the project applicant, a co-operating authority or the ombudsman for the environment, § 3(7) *EIA Act*.

[21] Already VwGH 2015/04/0002.

The subjective rights of a party to a permitting procedure always comprise the right to a decision by the competent authority. The objection of a neighbour in a sectoral permitting procedure that an EIA was required can therefore be interpreted as an objection to the permitting authority's competence to decide the case. This authority, acting as co-operating authority, would then have to assess its competence and, if necessary, ask the competent EIA authority for a declaratory decision.[22]

Fewer Restrictions on Access to Justice in EIA Matters: Who Can Bring What?

Not only CJEU case law on Austria but also its case law on other Member States has influenced 2016's legal developments in Austria. In the field of EIA in particular, it was the 2015 CJEU case *Commission v Germany*[23] that initiated heated debate about its consequences for the Austrian legal system.

In *Commission v Germany,* the CJEU assessed the so-called 'preclusion rule', a feature of German administrative procedures, and found it to be non-compliant with the requirements of the EU *EIA Directive.* Essentially this rule means that only parties who have made timely objections and thus maintained their party rights have the right to request a review of the EIA decision.[24] This rule consequently restricts the grounds for legal review a party can rely on, and regularly excludes many from access to the courts entirely. The Court found that the preclusion rule would undermine the *EIA Directive*'s objective of broad access to justice in the area of environmental protection, and its Art 11 in particular, which stems from Art 9(2) of the *Aarhus Convention*.[25]

In Austrian administrative procedures, including EIA permitting procedures, a similar preclusion rule to the one examined in *Commission v Germany* applies.[26] So far however,

[22] BVwG W104 2121923-1.

[23] Case C‑137/14 *Commission v Germany* (CJEU, 15 October 2015).

[24] Art 131(1) No 1 *Austrian Federal Constitution ('B-VG')*; Fister, Matthis, Fuchs, Claudia and Sachs, Michael, '*Das neue Verwaltungsgerichtsverfahren*' [2013] 114 et seq.

[25] See Klinger, '*Remarks on ECJ Judgment in C-137/14 – EU Commission s. Germany of 15 October 2015*' [2016] JEEPL 117.

[26] § 42 *General Administrative Procedure Act 1991* ('*AVG*') in general, § 44b *AVG* in relation to large scale proceedings.

the Austrian Administrative Court[27] and the prevailing Austrian doctrine[28] had argued that this preclusion rule was in line with EU law. Now, in light of the CJEU's assessment, the courts and the legislator had to deal with the rule's effects on EIA review procedures in Austria.

Conform interpretation opens court doors

The Federal Administrative Court had to examine several cases brought by parties – neighbours[29] and an environmental organisations[30] – who had not made their objections in the EIA permitting procedure timeously. Consequently, they had lost their party rights ('precluded party') and the permitting authority had rejected their late objections. The Federal Administrative Court found that the loss of party rights in permitting procedures was laid down in Austrian national law; *Commission v Germany* had not resulted in a change of this law. The permitting authority thus lawfully rejected the objections, with the consequence that the precluded party could not participate in the permitting procedure anymore. However, the court acknowledged that *Commission v Germany* requires Austrian courts to grant these precluded parties access to justice with regard to the decision taken in the EIA permitting procedure. Following the court's reasoning, although precluded parties can no longer present their objections in the permitting procedure, they can approach the courts for a review of the decision on those grounds raised out of time.

This reasoning was also applied in other constellations. In one case a party made timely objections, arguing that a project permit would contravene EU law, in particular the Water Framework Directive.[31] Such objections, however, are not admissible in Austrian administrative law as they do not constitute subjective party rights; which would include, for example, adverse effects on personal health or property. Consequently, the party lost his party rights and could not participate in the EIA permitting procedure. Again, the Federal Administrative Court held that following *Commission v Germany* such precluded parties have the right to access to justice with regard to the decision taken in the EIA permitting procedure.[32]

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[27] VwGH 2010/05/0202.

[28] Contrary to the prevailing view, some commentators argued already in 2011 that the rule was not consistent with EU law. See Mayer, Claudia and Weber, Teresa, 'Sind die verwaltungsrechtlichen Präklusionsvorschriften im UVP-Verfahren Unionsrechtskonform?' [2011] RdU 117.

[29] BVwG W193 2013859-1.

[30] BVwG W113 2017242-1.

[31] Directive 2000/60/EC of 23 October 2000 establishing a framework for the Community action in the field of water policy [2000] OJ L 237/1.

[32] BVwG W193 2006762-1.

In another case, the Federal Administrative Court relied on *Commission v Germany* and decided that such precluded parties have the right to access to justice with regard to the decision taken in the EIA permitting procedure, notwithstanding the fact that the parties in this case had raised no objections at all.[33]

Prepare for the worst?

So far, the Austrian legislator has not deemed it necessary to amend the Austrian preclusion rule. Consequently, the rule will still be applied in administrative procedures, including EIA permitting procedures. However, as the Federal Administrative Court demonstrated, the relevant national law provision relating to access to justice[34] can and will have to be interpreted in conformity with EU law and *Commission v Germany* so that those who have lost (partly or fully) their party rights in the permitting procedure are still granted access to the courts. A statutory solution by the Austrian legislator is thus not mandatory.

With this new situation however, the Austrian legislator has proposed various amendments to the *EIA Act* to prevent negative impacts on EIA procedures and decisions.[35] The first proposal serves to limit the timeframe within which those who have lost their party rights may challenge the decision. As a general rule, an application for legal review of an EIA decision ('complaint') must be brought within four weeks 'from the date of service' of the decision on the complainant;[36] otherwise the right to legal review is lost. The EIA decision is however not served on those who have lost their party rights (fully or partly),[37] consequently these precluded parties could have challenged the EIA decision forever. To avoid such a situation, the *EIA Act* shall state that that two weeks after the EIA decision has been made publically available at the EIA authority, the EIA decision will be deemed served on everyone who has not (at all or not timely) participated as a party in the EIA permitting procedure. Consequently, the right to legal review is lost after four more weeks from that point in time.

The second proposed amendment seeks to prevent abusive litigation by those who have not at all participated as parties in the EIA permitting procedure; the permitting procedure shall remain the main scene for examining objections to EIA projects. To achieve this, the proposed

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[33] BVwG W109 2107438-1.

[34] Art 131(1) No 1 *B-VG*.

[35] 254/ME XXV. GP 5.

[36] § 7(4) No 1 *Federal Act on Proceedings of Administrative Courts ('VwGVG')*.

[37] With the exception of large scale proceedings, § 44a et seq. *AVG.*

amendment imposes an obligation on such complainants to provide reasons why they had not presented their objections already during the permitting procedure. Should these new objections require expert evidence in the review procedure, the court can impose the resulting costs on the complainants, if these costs could have been avoided had the complainants brought these objections as part of the EIA permitting procedure rather than on review. Environmental organisations[38] and the Green Party[39] criticise this proposed amendment and question its conformity with EU law, and the *Aarhus Convention* in particular.

Outside EIA Procedures: (More) Rights for Environmental Organisations

Other than in national permitting procedures falling within the scope of the EU *EIA* and the *IE Directive*, environmental organisations neither have standing, nor the right to legal review. The Aarhus Convention Compliance Committee (ACCC) examined this situation already in 2012. It concluded that Austria was not in compliance with the requirements of the *Aarhus Convention*, in particular with its Art 9(3), which requires access to justice for members of the public with regard to acts and omissions 'which contravene provisions of […] **national law relating to the environment**'.[40]

No implementation, no direct effect for Art 9(3) of the Aarhus Convention

Despite the clear findings and recommendations of the ACCC, the Austrian legislator did not follow-up with the implementation of Art 9(3) of the *Aarhus Convention*. The courts, in the absence of a legal basis in national law, confined themselves to highlighting that Art 9(3) of the Aarhus Convention had according to the CJEU[41] and the Austrian legislator[42] no direct effect; 'consequently',[43] the ACCC's findings and recommendations would have no relevance in settling this argument. Art 9(3) of the Aarhus Convention could ultimately not serve as a legal basis for a right to review for environmental organisations, let alone a right to participate in permitting procedures relating to the environment.

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[38] VIRUS, 'Begutachtung Verwaltungsreformgesetz BMLFUW - (vorläufige) Stellungnahme', 24 October 2016, available at https://www.parlament.gv.at/PAKT/VHG/XXV/SNME/SNME_07676/imfname_568128.pdf.

[39] See however Grüner Klub im Parlament, 'Vorläufige Stellungnahme zum VerwaltungsreformG BMLFUW', 1 November 2016, 5 et seq; available at https://www.parlament.gv.at/PAKT/VHG/XXV/SNME/SNME_07762/fname_568962.pdf.

[40] ACCC/C/2010/48.

[41] Case C-240/09 *Lesoochranárske zoskupenie* [2011] ECR I-01255.

[42] RV 654 XXII. GP 2.

[43] VwGH Ro 2014/07/0028; VwGH 2012/10/0137.

'There is no alternative'[44] *to acting*

In summer 2016, the Viennese legislator took the first step to rectify the situation for environmental organisations. In its provincial laws relating to proceedings in the field of nature protection, national parks, hunting and fisheries, the Viennese legislator proposed a right to legal review of certain administrative decisions for environmental organisations fulfilling the requirement set out in the *EIA Act*.[45]

Environmental organisations criticise this proposal.[46] They argue that a right to participate in the permitting procedure itself – although not explicitly required by Art 9(3) of the *Aarhus Convention* – would be a more constructive approach as it allows to deal with concerns before the authority takes the decision. A mere right to legal review after the decision had already been taken would, however, be destructive as it creates legal uncertainty for the project developer. This would be why the Austrian administrative law system generally links the right to participate and the right to legal remedies. A better fit for the Austrian system would thus be a right to participation in addition to the right to review that the Viennese legislator proposed.

Environmental organisations now hope to get new support in their argument from a recent CJEU preliminary ruling.[47] At least in relation to areas protected under the *Habitats Directive*,[48] so-called Natura 2000 sites, the discussion could indeed gain momentum: In its reasoning, the CJEU argued that the national procedure implementing the appropriate assessment of plans and projects likely to affect a Natura 2000 site (Art 6 of the *Habitats Directive*) is a procedure falling within the scope of Art 6(1) lit b of the *Aarhus Convention*. Consequently, such procedures require participation of the 'public concerned' and access to justice to protect these participatory rights as provided for by Art 9(2) of the *Aarhus Convention*.[49]

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[44] Draft law 'Gesetz, mit dem das Gesetz über den Nationalpark Donau-Auen (Wiener Nationalparkgesetz) und das Wiener Naturschutzgesetz geändert werden', 14 June 2016, available at https://www.wien.gv.at/recht/landesrecht-wien/begutachtung/pdf/2016009.pdf.

[45] Draft laws available at https://www.wien.gv.at/recht/landesrecht-wien/begutachtung/#ende.

[46] Ökobüro, '*Stellungnahme zur Änderung des Wiener Nationalparkgesetzes und des Wiener Naturschutzgesetzes*', 25 July 2016, available at http://www.oekobuero.at/images/doku/oekobuero_stgn_wrnaturschutznovelle_aarhus_2016.pdf.

[47] Case C-243/15 *Lesoochranárske zoskupenie VLK* (CJEU, 8 November 2016).

[48] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora [1992] OJ L 206/007.

[49] Case C-243/15 *Lesoochranárske zoskupenie VLK* (CJEU, 8 November 2016) para 47 et seqq.

Conclusion

This report highlighted some of the struggles of a right-based country in implementing the *Aarhus Convention's* public participation and access to justice requirements. Although Austria's administrative courts, often induced by CJEU case law, have indeed helped to shape the national law in view of the *Aarhus Convention*, it is clear that ultimately action by the Austrian legislator is required to achieve full and effective realization of the public's right to participate in environmental decision-making and relating access to justice. With the initiative of the Viennese legislator within its field of competence, there is hope others could follow the example. Whether this hope will be fulfilled remains to be seen.

COUNTRY REPORT: THE BAHAMAS

Environmental Litigation and The Bahamas' Signing of the Port State Measures Agreement

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with assistance from:

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Introduction

This report provides a brief overview of two Bahamian landmark decisions arising from environmental litigation, namely, the *Blackbeard's Cay* and *Save the Bays* decisions. Both these decisions have provided significant footing for future environmental litigation in The Bahamas despite their controversial nature regarding the decisions themselves and the enforcement (or lack thereof) of those rulings. This report also briefly discusses The Bahamas' accession to the Port State Measures Agreement in an effort to protect its fisheries.

Blackbeard's Cay - Captive Marine Mammal Facility

In April 2014, Justice Stephen Isaacs of the Supreme Court of the Commonwealth of The Bahamas granted several prerogative orders declaring that the captive marine mammal facility at Blackbeard's Cay was unlawful and quashed the approval of the facility.[1] The facts of this case were covered in depth in the IUCN eJournal's 2015 country report of The Bahamas, which focused on the fragmentation of Bahamian environmental legislation and its correlation to unpermitted developments.[2]

To recap briefly, reEarth (a Bahamian NGO), applied for a judicial review seeking orders to quash the issuing of permits to house dolphins at Blackbeard's Cay/Balmoral Island off the northern coast of New Providence island. The permits and decisions related to the

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[1] *The Queen v Minister of Agriculture and Marine Resources, Director of Fisheries and Marine Resources, Town Planning Committee, Minister responsible for Crown Lands, and Blue Illusions Ltd ex parte reEarth* 2013/PUB/jrv/00034, 17 July 2014.

[2] 'Country Report: The Bahamas, The Problem of Unpermitted Development and Fragmented Environmental Laws' by Lisa Benjamin with assistance from Theominique Nottage and Renee Farquharson, IUCN eJournal 2015(6) <http://www.iucnael.org/en/e-journal/previous-issues?layout=edit&id=615> accessed November 12th 2016.

construction of the site were issued by certain government officials[3] to Blue Illusions Limited, the developer. reEarth alleged that the facility was allowed to be constructed and become operational without the required premises licence as mandated under the *Marine Mammals Protection Act 2005 (MMPA)*[4] and without obtaining Site Approval as required under the *Planning and Subdivision Act* 2010 (*PSA*).[5] It was further alleged that the government failed to hold required public hearings provided for under the PSA.[6] After reviewing the evidence, Justice Isaacs revoked the issued permits to house the dolphins on Blackbeard's Cay and ordered that the dolphins be removed and that Blue Illusions Limited restore the site to its previous condition.

The landmark ruling, celebrated by activists worldwide,[7] was a huge win for environmental organisations, providing a stronger footing for the growth of environmental law in the Bahamas and the region. The order, however, was never complied with by the Bahamian Government. It is important to note that as at the date of the writing of this article, the July 2014 order to close the facility has not been enforced and the facility remains operational.[8] In fact, Blue Illusions has suggested that the July 2014 order places no obligation on them to comply because they were not a party to the proceedings. Mr Frederick Smith, QC, attorney for reEarth, however, has stated, "Blue Illusions is bound by the legal and factual findings by Justice Isaacs because their attorney, George Mackey, attended every interlocutory hearing and those at the trial, and opportunities were given by the judge who invited them to participate."[9]

The Government's disregard for the order sparked much discussion among activists and the legal community. Vanessa Haley-Benjamin, CEO of a Bahamian non-governmental environmental organisation, Save the Bays (STB), published an open letter to the Prime

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[3] Blue Illusions constructed a cruise passenger destination facility, which included a captive marine mammal facility.
[4] s6(1)(b).
[5] s14.
[6] Save the Bays, 'Urgent action needed on Blackbeard's Cay' (*Save the Bays*, September 25th 2015) <http://www.savethebays.bs/category/blackbeards-cay/> accessed November 15th 2016.
[7] Michelle Kretzer, Win for Dolphins! Bahamian Supreme Court Orders Dolphinarium Closed (*People for Ethical Treatment of Animals,* July 29th 2014) <http://www.peta.org/blog/win-dolphins-bahamian-supreme-court-orders-dolphinarium-closed/> accessed November 15th 2016.
Whale and Dolphin Conservation Society, 'One Step at a Time: Victory for Dolphins in The Bahamas!' (*Whale and Dolphin Conservation Society*, July 19th 2014*)*.
<http://uk.whales.org/blog/2014/07/one-step-at-time-victory-for-dolphins-in-bahamas> accessed November 15th 2016.
[8] November 2016.
[9] Neil Hartnell, 'Activists 'Very Upset' $8m Project Still Open', *The Tribune* (New Providence, May 8th 2015) <http://www.tribune242.com/news/2015/may/08/activists-very-upset-8m-project-still-open/> accessed November 15th 2015.

Minister of The Bahamas more than a year after the order was made prompting him to comply with the order forthwith.[10] In her letter, she noted that the continued operation of the facility constituted "an affront to the authority of the judiciary and a blow to respect for the rule of law as enshrined in the Bahamas Constitution".[11] She went on to question the state of governance in The Bahamas noting that blatant disregard for an order of the court could harm The Bahamas' reputation for stability and possibly turn off potential investors.[12] Similar sentiments were expressed by Brian Moree, QC[13] in an interview with the Tribune Newspaper when he stated, "This raises a serious question as to the rule of law, and it is the position of IMS[14] that all parties are required to obey and comply with court Orders. It is difficult to understand how the business can operate without the requisite licenses."

reEarth, in response to the Government's refusal to act, sought to enforce a penal notice to hold the Respondents in contempt. This move, however, had little effect when Justice Isaacs issued a new Order on April 8th 2016 in response to Blue Illusions application for an injunction. The April 8th Order restrained the Government "from enforcing or purporting to enforce the prerogative Orders" obtained in July 2014.[15] The injunction, however, has since lapsed, allowing reEarth to reignite its pursuit to have the July 2014 Order enforced.

The question to be considered in light of these events is still, how will the non-compliance with the Supreme Court order be addressed? The continued non-compliance by the government has drawn much speculation about the Bahamian Government being actively engaged in secret licensing in contravention of the legislation.[16] Despite the government's failure to act on the order, the order still has the force of law and provides tangible proof of wrongdoing on the part of the Government. Environmental litigation victories, though varied, provide a legal and enforceable footing for activists to stand on, which can work to foster increased pressure domestically and internationally to comply with environmental legislation. Considering these events, the hope is that future developments will be properly approved in line with the relevant legislation.

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[10] Save the Bays (n 6).
[11] Save the Bays (n 6).
[12] Save the Bays (n 6).
[13] Neil Hartnell, 'Blackbeard's Presence 'Contrary To Rule Of Law' *The Tribune* (New Providence, November 8th 2016) <http://www.tribune242.com/news/2016/nov/08/blackbeards-presence-contrary-rule-law/> accessed November 20th 2016.
[14] Instituto De Ciencias Marinas. Instituto De Ciencias Marinas is a Honduran based company that is currently in dispute with Blue Illusions over the imported dolphins at Blackbeard's Cay.
[15] Neil Hartnell, 'Blackbeard's Cay Closure Is Blocked' *The Tribune* (New Providence, April 22nd 2016) < http://www.tribune242.com/news/2016/apr/22/blackbeards-cay-closure-blocked/?news> accessed November 15th 2016.
[16] Hartnell (n 9).

Save the Bays – Constitutional Decision

On 2 August 2016, Justice Indra Charles of the Supreme Court of the Commonwealth of The Bahamas handed down a landmark decision[17], in which an environmental advocacy group in The Bahamas challenged the authority of the Government, and won. The ruling has been labelled as 'controversial', 'astonishing[18]', and in some circles, erroneous.[19] Nevertheless, the pronouncement is an accomplishment for the environmental group which has spent most of the past two decades fighting for the protection of The Bahamas' natural resources by way of education, advocacy and legal action.[20] It further signifies the maturation of environmental advocacy in The Bahamas.

Save the Bays (STB), formerly known as the Coalition to Protect Clifton Bay, is a non-governmental organisation which was established in the late 1990s. In 1997, a Canadian group of investors proposed the development of a 600-home golf course on 200 acres of land at Clifton Cay.[21] It was said that the proposed development would have been 'detrimental to the two most important coastal resources in The Bahamas: sandy beaches and living coral reefs'.[22] As a result of the active opposition by a group of Bahamians, the development was cancelled and the Clifton Heritage Authority came into being. [23]

On 7 May 2013, STB brought an action for judicial review against the Bahamian Government and a Bahamian resident, Peter Nygard, on the grounds that the ongoing development at Mr. Nygard's property was unauthorized, being in breach of the *Planning and Subdivision Act 2010*[24], and that the expansion of Mr. Nygard's land by dredging the seabed had severely

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[17] *Coalition to Protect Clifton Bay and Zachary Hampton Bacon III v The Hon. Frederick Mitchell MP (Minister of Foreign Affairs and Immigration) and The Hon. Jerome Fitzgerald MP (Minister of Education, Science and Technology) and The Attorney General of the Commonwealth of The Bahamas* 2016/PUB/con/00016.

[18] Royston Jones Jr, 'Speaker slam STB ruling' *The Nassau Guardian* (New Providence, August 4th 2016) <http://www.thenassauguardian.com/news/66786-speaker-slams-stb-ruling> accessed October 18th 2016.

[19] Royston Jones Jr, 'Govt respond to Supreme Court parliamentary privilege ruling' (New Providence, August 3rd 2016) < http://www.thenassauguardian.com/news/66720-govt-responds-to-supreme-court-parliamentary-privilege-ruling> accessed November 3rd 2016.

[20] Coalition to Protect Clifton, 'Our Story' (*Save the Bays*) <http://www.savethebays.bs/about-us/our-story/> accessed October 18th 2016.

[21] Larry Smith, 'Development Planning and the Clifton Legacy' (*Bahamas Pundit*, December 15th 2010) <http://www.bahamapundit.com/2010/12/development-planning-and-the-clifton-legacy.html> accessed October 18th 2016.

[22] Stephen Leatherman, Impact of the Proposed Clifton Cay Development on Jaw's Beach and Nearshore Coral Reefs, New Providence Island (Nassau), (Natural Resources Defense Council, 2001) 1.

[23] *Clifton Heritage Authority* 2005 Ch.51B.

[24] Sarah Kirkby, 'Save the Bays Wins Court Approval to Start Judicial Review Action about Unregulated Development at Nygard Cay and Jaws Beach' (*The Bahamas Weekly*, Jun 20th 2013)

damaged and disrupted the delicate ecosystem in that area.[25] On June 13th 2013, the Court granted an injunction against Mr. Nygard, and the Government has halted all construction on the land until the judicial review application is concluded. This action has proven to be a catalyst for the development of environmental advocacy in The Bahamas.

Various groups have since challenged the Government on matters relating to project development, pollution, and breaches of regulations. In November 2013, the Bimini Blue Coalition was granted leave for judicial review proceedings against the Government and Real World developers to prevent dredging for a 1,000-foot pier in Bimini without the appropriate permit.[26] As highlighted earlier in this country report, in July 2014, Senior Justice Stephen Isaacs ruled in favour of reEarth's judicial review of the permits granted to the developers at Blackbeard's Cay, thus ordering the termination of the development. [27] The Coalition to Protect Clifton Bay was also granted leave by the Supreme Court to bring judicial review proceedings against the Government and the Bahamas Electricity Corporation for the continued oil pollution at Clifton Pier on February 22nd 2016.[28] All of these actions are considered positive steps towards the creation of proper legislation and a rich environmental jurisprudence, which will not only protect the environment but also facilitate the free flow of information between the Government and the citizenry. However, these environmental groups and the citizens who support them, have been faced with immense pressure and opposition.

The plight of environmental groups in The Bahamas is not unheard of. It is a struggle which plagues environmental activists around the world. As guardians of the environment, activists are at the highest risk of intimidation, harassment, stigmatization, assault and even death.[29] It is believed that these risks crystalize because the opinions of these environmental activist '[a]re essential to holding powerful economic actors, including states, accountable, pressuring

<http://www.thebahamasweekly.com/publish/local/Save_The_Bays_Wins_Court_Approval_To_Start_Judicial_Review_Action_about_Unregulated_Development_at_Nygard_Cay_and_Jaws_Beach29068.shtml> accessed October 20th 2016.

[25] Neil Hartnell, 'Judicial Review over Nygard 'Breach of Duty' *The Tribune* (New Providence, May 21st 2013) <http://www.tribune242.com/news/2013/may/21/judicial-review-over-nygard-breach-of-duty/> accessed October 20th 2016.

[26] *Bimini Blue Coalition Limited v. The Rt. Hon. Perry G. Christie, Prime Minister of the Commonwealth of The Bahamas (in his capacity as the Minister Responsible for Crown Lands) and others* [2014] 1 BHS J. No. 132.

[27] *The Queen v Minister of Agriculture and Marine Resources, Director of Fisheries and Marine Resources, Town Planning Committee, Minister responsible for Crown Lands, and Blue Illusions Ltd ex parte reEarth* 2013/PUB/jrv/00034, 17July 2014.

[28] Neil Hartnell, 'Court Approves Legal Action On Clifton Pollution' *The Tribune* (New Providence, February 23rd 2016) < http://www.tribune242.com/news/2016/feb/23/court-approves-legal-action-clifton-pollution/> accessed October 23rd 2016.

[29]International Center for Not-for-Profit Law, 'Environmental Advocacy: Challenges to Environmental Groups' Rights to Assemble Associate and Express their Opinion' (2016) Vol.7 Issue 1 International Journal of Not-for-Profit Law 1.

governments and private industries to commit to higher environmental standards…and exposing projects that could lead to environmental degradation'.[30] Thus, when environmental groups set out to ensure that governments, corporations and private citizens act in conformity with environmental standards, they in turn bear the burden of unwarranted scrutiny and violence.

The increased amount of opposition to the causes of environmental groups has created a precarious climate that has garnered much national and international attention. In 2015, the Inter-American Commission on Human Rights published its Report on Criminalization of the Work of Human Rights Defenders in which it recognized that '…human rights defenders in The Bahamas face a hostile environment that endangers their safety and work'.[31] This publication should have been treated as a warning to the Bahamian Government in relation to its treatment of environmental activists. However, since that time further information has been discovered which has tarnished The Bahamas' reputation in the international community.

On March 9th 2016, a writ was filed in the Supreme Court wherein it was alleged that Peter Nygard and his lawyer Keod Smith orchestrated assassination attempts and various intimidation and harassment tactics aimed at STB Directors Louis Bacon and Joseph Darville, STB lawyers Fred Smith QC and Romauld Ferreira, and Reverend CB Moss over a two-year span.[32] In the writ, it is alleged that Mr. Nygard and his attorney hired two men to organise hate rallies against STB and its Directors in four separate instances.[33] The 22-page document highlighted the numerous allegations of harassments occurrences of harassment against STB and its associates: the April 2013[34] attack on Mr. Fred Smith at Jaws Beach; the July 2013[35] email hack of Reverend CB Moss's computer; and the attempted break-in at Mr. Ferreira's office in 2014.[36]

Additionally, it was alleged that the men took responsibility for the 2013 firebombing of Reverend CB Moss's car,[37] and received '$5,000 to threaten and "rough up"' Director of

[30] ibid, p. 2-3.
[31] Inter American Commission on Human Rights, 'Criminalization of the Work of Human Rights Defenders' 2015, 80 <http://www.oas.org/en/iachr/reports/pdfs/Criminalization2016.pdf.> accessed November 13th 2016.
[32] Ava Turnquest, 'Peter Nygard 'Hired Hitmen': Court Documents Detail Alleged Murder Conspiracy' *The Tribune* (New Providence, March 10th 2016) <http://www.tribune242.com/news/2016/mar/10/claim-nygard-hired-hitmen/.> accessed November 2nd 2016.
[33] *Frederick Roy Smith QC, Louis M Bacon, Joseph Darville, Romauld Ferreira, and Reverend C.B. Moss v Peter Nygard and Keod Smith* 2016/CLE/gen/00329
[34] ibid, para 13.
[35] ibid, para 20.
[36] ibid, para 27.
[37] ibid, para 18.

Physical Planning Michael Major over his refusal to grant Mr Nygard the permits he needed for developments at his Lyford Cay property'.[38] Irrespective of the severity of these allegations, STB and its associates have received no additional protection from the Government. In response to the filing of the writ, the Commissioner of Police on March 14th 2016, opened an investigation into the matter, but since that time no update has been given and no further action has been taken.

The ruling of Justice Charles not only signifies the complete emergence of environmental advocacy in The Bahamas, but it also intensifies the external pressure and challenges that environmental groups will face. On September 6th 2016, STB made an application to the Inter-American Commission on Human Rights (the Commission) requesting that the Commission require The Bahamas to 'adopt the necessary protective measures to safeguard the lives and personal integrity'[39] of members' of STB. In accordance with the Rules of Procedure of the Inter-American Commission on Human Rights[40], the Commission has the authority to 'request that a State adopt precautionary measures [which] concern serious and urgent situations presenting a risk of irreparable harm to persons or to the subject matter of a pending petition'.[41]

In presenting its application, STB relied on the instances of harassment and intimidation over the past two years and recent information received about imminent danger[42] *against several STB members. The Commission found that based on the information presented, STB members are 'in a serious and urgent situation, since their lives and personal integrity face an imminent risk of irreparable harm'.*[43] *The Commission therefore requested that The Bahamas adopt the necessary measures to protect the mentioned STB members and ensure that they are able to continue their work as activists free from any harassment or intimidation.*[44]

The ruling of the Commission in conjunction with Justice Charles judgement[45]*, cements the significance of environmental advocacy and the inherent rights of activists in The Bahamas. The foremost issue in Justice Charles' ruling was whether the doctrine of parliamentary privilege, in effect, gave parliamentarians the power to overlook the right under Article 21 of*

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[38] ibid, (n16).
[39] Inter-American Commission On Human Rights Resolution 54/2016. Precautionary Measure No. 706-16. Matter of Fred Smith and others regarding The Bahamas. November 4, 2016. I.1.
[40] *147th Regular Period of Sessions, 2013.*
[41] ibid, Article 25 (1).
[42] ibid, II. 3 C (n17).
[43] ibid, I. 2 (n17).
[44] ibid V. 17a & b (n17).
[45] ibid (n 16).

the Bahamian Constitution[46] for protection of home and other property. The facts surrounding this civil action are that on March 15th and 17th 2016, the second Respondent, being a member of Parliament, disclosed the private emails and other confidential documents of various STB members. In defence of this action, the Government relied, inter alia, on the doctrine of parliamentary privilege which was thought to oust the Supreme Court's jurisdiction when considering matters within the walls of Parliament. The learned Justice in this instance noted that generally the Court should not interfere with the internal affairs of Parliament, but Parliament cannot use the doctrine of Parliamentary privilege to oust the Court's jurisdiction where it is alleged that there is a constitutional breach.

The ruling has evoked a large amount of consternation from the Government because it established that acts done within the walls of Parliament are no longer above reproach. The purpose of the doctrine was to facilitate a parliamentarians' function of governing, free from fear of persecution. However, the doctrine was not meant to allow Parliamentarians to trample on the rights of private citizens behind the shield of parliamentary privilege. Justice Charles noted that 'it is incumbent on the Court to uphold the constitutional values and to enforce the constitutional limitations…[t]he upshot [being] that parliamentary privilege is trumped by breaches of the Constitution and although Parliament is supreme, it is not as supreme as the Constitution'.[47] By upholding the Constitution, the Court has assisted in advancing environmental advocacy in The Bahamas. The ruling creates a necessary precedent which will assist in protecting environmental groups in the future. On September 9th, 2016, the second respondent, along with the Attorney General filed a notice of appeal against Justice Charles' ruling in the Court of Appeal of The Bahamas.[48]

The Port State Measures Agreement

The Port State Measures Agreement (PSMA)[49] is an agreement intended to prevent, deter and ultimately eliminate illegal, unregulated and unreported (IUU) fishing.[50] The PSMA provides for port States to verify that vessels seeking permission to enter their ports have not

[46] 1973.
[47] ibid, p. 99.
[48] Ava Turnquest, 'Fitzgerald Files Appeal Over Parliamentary Privilege Ruling' *The Tribune* (New Providence, September 14th 2016) <http://www.tribune242.com/news/2016/sep/14/fitzgerald-files-appeal-over-parliamentary-privile/> accessed December 8th 2016.
[49] Agreement On Port State Measures To Prevent, Deter And Eliminate Illegal, Unreported And Unregulated Fishing <http://www.fao.org/fileadmin/user_upload/legal/docs/2_037t-e.pdf> accessed December 8th2016.
[50] Food and Agriculture Organization of the United Nations, 'The benefits of ratifying and implementing the 2009 FAO Port State Measures Agreement' (*Food and Agriculture Organization of the United Nations*) <http://www.fao.org/fishery/psm/agreement/en> accessed November 26th 2016.

engaged in illegal, unregulated or unreported fishing.[51] The PSMA further seeks to enhance State to State information exchange regimes with the view of effective execution of the objective of the agreement.[52] Regional cooperation is also enhanced by the PSMA by way of a State being required to exercise control over vessels flying their flags, and requiring such States to take certain actions at the request of the port State.[53] The Agreement entered into force on June 15th 2016 upon passing the 25-government signatory threshold, with Dominica, Guinea-Bissau, Sudan, Thailand, Tonga and Vanuatu representing the final signatories needed.[54] The Bahamas has also acceded to the PSMA as of September 21st 2016[55].

Illegal, unregulated and unreported fishing poses a direct threat on a country that markets its sun, sand; and of particular importance, its sea. Marine life in The Bahamas is pivotal, as the tourist value of live sharks, turtles, fish and the marine ecosystem holistically far exceeds that of the value of marine life that is caught and killed.[56] The Bahamas has long been an acclaimed diving destination, and the ratification of the PSMA would help to ensure that it remains so through the enhanced regulations of the fishing industry.

The Bahamas is an archipelagic nation whose jurisdiction spans approximately 245,000 square miles of maritime space.[57] Frameworks and policing regimes are crucial in the conservation and protection of such a large space to ensure sustainable use for present and future generations. The PSMA presents such a policy that would strengthen the policing of the ports in The Bahamas and other countries that have ratified the agreement, thereby assisting in the IUU issues in The Bahamas.

The Bahamas, in having such a large maritime area to protect, inherently faces issues of manpower to police its waters and protect from IUU fishing. The Royal Bahamas Defence Force presently has seventeen boats; nine new crafts, two dauntless boats and six smaller

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[51] ibid.
[52] ibid.
[53] ibid.
[54] K. Quincey Parker, 'UN fisheries treaty to enter force without Bahamas signature' *The Nassau Guardian* (New Providence, May 19th 2016) <http://www.thenassauguardian.com/bahamas-business/40-bahamas-business/64918-un-fisheries-treaty-to-enter-force-without-bahamas-signature> accessed November 27th 2016.
[55] The Hon. Fred Mitchell, 'Bahamas Statement' (71st Regular Session Of The United Nations General Assembly, New York, September 26th 2016) <http://mofa.gov.bs/bahamas-statement-delivered-by-foreign-affairs-minister-the-hon-fred-mitchell-at-the-71st-regular-session-of-the-united-nations-general-assembly%E2%80%8F/> accessed December 8th 2016.
[56] K. Quincy Parker ''Blue economy' worth US $407B in the Caribbean' *The Nassau Guardian* (New Providence, 16 September 2016 <http://www.thenassauguardian.com/bahamas-business/40-bahamas-business/67858-blue-economy-worth-us407b-in-the-caribbean> accessed November 26th 2016.
[57] Bahamas National Maritime Authority, 'The Bahamas' National Maritime Policy April 2015'.

boats.[58] The general practice in the staffing of the Defence Force vessels is that one hundred-twenty foot boats have a crew of twenty-four, and dauntless boats a crew of ten. This fleet is responsible for patrolling the mentioned 245,000 square miles of maritime space. This is certainly a tall order and proves to be understandably difficult to do given the manpower and resources at the disposal of the Royal Bahamas Defence Force.

Poachers, in realizing the fact that Bahamian authorities are pressed to safeguard all the territorial waters, seek to take advantage of the fishery resources in The Bahamas. As recently as November 2nd 2016, there was a report that a Royal Bahamas Defence Force vessel, which is principally responsible for the protection of Bahamian waters, had intercepted a Dominican Republic vessel that was illegally fishing in Bahamian waters. [59] The Dominican vessel struck the Defence Force vessel in an unsuccessful attempt to escape, thereby placing the lives of the Defence Force officers in danger. At the resolution of the issue, fifty Dominican poachers were taken into custody, and an undetermined quantity of fishery resources was recovered.[60]

There have been reports that multiple foreign fishing vessels enter Bahamian waters simultaneously with a mind to poaching. Reports of Bahamian fisherman being fired on by Dominican vessels are reported as being made frequently.[61] Acting Commodore of the Royal Bahamas Defence Force, Tellis Bethel, stated that over the years there has been a real concern about Dominican poachers depleting The Bahamas fishing resources.[62] The Prime Minister of The Bahamas, the Right Honourable Perry Christie, has stated that fisherman are asserting that this year (2016) has been the best year they have had in many years due to the Defence Force' ability to protect Bahamian waters.[63] The Port State Agreement would serve as support to the efforts already being made by the relevant authorities. It could also possibly aid in the longevity of such high yield fishing for fishermen and Bahamians at large.

In the final analysis, the PSMA proffers many benefits that would aid in The Bahamas' conservation of marine life and regulating fishing practices in its maritime jurisdiction. The

[58] Royal Bahamas Defence Force, Commander Cheryl Bethel, Personal Communication, November 25th 2016.
[59] Staff Writer, 'RBDF apprehends 50 Dominican fishermen' *The Nassau Guardian* (New Providence, November 5th 2016) <http://www.thenassauguardian.com/news/68998-rbdf-apprehends-50-dominican-fishermen> accessed November 26th 2016.
[60] ibid.
[61] Don Alleyne, 'Poachers shoot at RBDF marines' *The Nassau Guardian* (*New Providence*, June 15th 2016) <http://www.thenassauguardian.com/news/65569-poachers-shoot-at-rbdf-marines> accessed November 26th 2016.
[62] ibid.
[63] Sloan Smith, 'PM: Proposal with China is a no go' *The Nassau Guardian* (New Providence, November 22nd 2016) <http://www.thenassauguardian.com/news/69359-pm-proposal-with-china-is-a-no-go> accessed November 26th 2016.

global implementation of the PSMA will invariably serve as a disincentive to the practice of IUU fishing, as the benefits of such practices should no longer be present in global markets.

Conclusion

The recent decisions by the Bahamian courts involving environmental litigation has highlighted the lack of emphasis placed on the environmental arena in years past. These decisions, backed by international awareness, serve as catalysts to further ensure the growth and continued expansion of environmental efforts in The Bahamas and within the region. Further, The Bahamas' signing onto the PSMA highlights The Bahamas' continued efforts to ensure that its resources and the livelihood of many Bahamians in protected and preserved for their benefit through regional and international cooperation.

COUNTRY REPORT: BANGLADESH

Managing Ecologically Critical Areas in Bangladesh

Imtiaz Ahmed Sajal*

Introduction

Within a relatively small geographic boundary Bangladesh enjoys a diverse array of ecosystems and biodiversity in general. The 1992 National Conservation Strategy of Bangladesh identified 31 areas as environmentally critical areas. In order to ensure *in situ* conservation of these critical areas, the Bangladesh Environment Conservation Act (BECA), 1995[1] empowered the Government to declare an area rich in biodiversity and environmentally significant as an Ecologically Critical Area (ECA). The Act also empowered the government to make Rules for ECA management procedures.[2] In 2016 the Government finally adopted the Ecologically Critical Areas Management Rules.[3]

Ecologically Critical Areas Management Rules

For the proper management and development of the ECAs, the Government framed *the Ecologically Critical Areas (ECA) Management Rules, 2016* (hereafter the Rules).The Rules provide different committee systems for the management of ECAs from the national to village level. The Rules at first provide for the establishment of a National Committee[4] consisting of a Chairperson[5] and 19 other members[6] including 2 academics and 2 NGO activists. The Department of Environment[7] (DoE) provides the secretarial assistance to the National Committee. The Rules then describe responsibilities and functions of the National Committee.[8] The National Committee plays a pivotal role in the management of ECAs. It is this committee that is empowered, of its own accord, or on the basis of a request supported by information to the effect that due to environmental degradation the eco-system of an area is in a critical condition or is threatened to be in such situation, to recommend to government

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[1]The principal legislation regulating environment in Bangladesh (Act No. 1 of 1995). Bangla text of the Act was published in the Bangladesh Gazette, extra-ordinary issue of 16-02-1995 and amended by Act Nos. 12 of 2000, 9 of 2002 and 50 of 2010.

[2] See *the Bangladesh Environment Conservation Act* (n 1) section 20(2) (k).

[3]Original text (in Bangla) of the Rules was published in the Bangladesh Gazette, Extra-ordinary Issue of 22-9-2016.

[4] The ECA Management Rules 2016, rule 3.

[5] Secretary, Ministry of Environment and Forest (MoEF) as per official capacity.

[6] Representing different concerned Ministries and Departments.

[7] Principal government agency responsible for overall protection and improvement of Environment under the MoEF.

[8]*The ECA Management Rules 2016*, rule 4.

to declare an area as an ECA. In recommending a site, the National Committee will consider existing natural conditions and biodiversity, forests, wildlife, protected areas, wetlands etc. and causes for ecological degradation, possible threats and preventive measures for this. The Committee will also take into account livelihoods, religious and social culture of local inhabitants, and the presence of archeological sites. The National Committee will also make recommendations regarding the generation of alternative livelihoods for the people dependent on an ECA. The Committee will meet once a year.[9]

The Rules also make provision for so-called District Committees, to be established in the district where a particular ECA is situated. This committee will be formed by 26 members,[10] including 7 civil society members, headed by the Deputy Commissioner of that district.[11] When any ECA is situated in more than one district then the concerned Divisional Commissioner will be the head of District Committee.[12]The Rules then prescribe the responsibilities and functions of the District Committee.[13]The District Committee will guide the *Upazila*[14] Committees regarding any development plan and necessary measures suggested by the DoE to overcome the critical situation existing within the ECA. It will also co-ordinate the functions of other subordinate committees and can send the recommendations to the National Committee on the basis of their proposals regarding activities or processes, which cannot be initiated or continued in an ECA.

The Rules mandate the District Committees to visit ECAs and monitor the progress of implementation of development plans and measures taken by the DoE and to generate alternative livelihoods if the livelihood option of locals are being limited by any of the protective measures adopted for the ECA in question. The District Committee has to take necessary legal actions against any person or entity who or which has committed, or attempted to commit any prohibited activities in an ECA. When any ECA is situated in more than one *Upazilas* it will coordinate the activities of *Upazila* Committees. The District Committee will meet thrice in a year.[15]

The Rules also provide for the formation of *Upazila* Committees in the *Upazila* where the particular ECA is situated. This committee will be formed by 21 members (*Upazila* level

[9] ibid, rule 5.
[10] District level government officials from different concerned Ministries and Departments.
[11]*The ECA Management Rules 2016*(n3) rule 6.
[12] ibid, rule 6(2).
[13] ibid, rule 7.
[14]Sub-district level tier of local administration.
[15]*The ECA Management Rules 2016*, rule 8.

government officials including 5 civil society members), headed by the *Upazila Nirbahi* (executive) Officer.[16] The *Upazila* Committee has the same functions as the District Committee, but it will give recommendations to the District Committee and supervise the functions of Union Coordination Committee and Village Conservation Groups.[17] Moreover *Upazila* Committees will assist in registering Village Conservation Groups and in forming cooperative societies. These committees are also empowered to take measures to resolve disputes among different stakeholders dependent on ECA. It is also responsible for maintaining proper accounts of money received from the Ecology Management Fund. The *Upazila* Committee will meet once after every three months.[18]

The Rules further provide for the formation of Union Coordination Committees.[19] This committee will be formed with 13 members, including 5 civil society members, headed by the Chairperson of that union council.[20]It will coordinate and observe the functions of Village Conservation Groups and will give them necessary directions and solve their problems in performing their functions.[21]

Finally, the Rules provide that, for the purpose of conservation and development of an ECA, one or more Village Conservation Groups can be formed in that area by the locals or people dependent on that area and that a Village Conservation Group should be registered as a cooperative society under the Cooperative Societies Act, 2001.[22] Village Conservation Groups will ultimately implement development plans and necessary measures in an ECA suggested by the DoE.[23] These groups will create public awareness regarding prohibited activities or processes in an ECA, mentioned in the relevant notification. In case of any violation they have to inform the relevant *Upazila* Committee. For the purpose of conservation and development of an ECA, a Village Conservation Group can initiate a scheme or project with the permission of the *Upazila* Committee and approval of the DoE.[24] Any infrastructure or facility in an ECA or in its vicinity can be vested, by the government or any authority, to the Village Conservation Group for use, maintenance and management.[25]

[16] ibid, rule 9.
[17] ibid, rule 10.
[18] ibid, rule 11.
[19] Unions are the lowest tier of local government set-up in Bangladesh. *The ECA Management Rules 2016*, rule 12(1).
[20] ibid, rule 12(2).
[21] ibid, rule 12(3).
[22] ibid, rule 13.
[23] ibid, rule 14.
[24] ibid, rule 15.
[25] ibid, rule 16.

In addition to making provision for the management of ECAs by way of the above committees, the Rules also set out the procedure for declaring an area as an ECA.[26] Before declaring an area as an ECA, a draft notification has to be published for at least 60 days on the website of the Ministry of Environment and Forest (MoEF) and DoE and in two Bangla daily newspapers to seek opinions from stakeholders and interested persons. Opinions obtained by this way are required to be taken into consideration at the meeting of the National Committee. In the Gazette notification declaring an ECA, the boundary and legal description (land survey information) including a map of the area concerned shall be provided. This information too must be widely circulated in the concerned area.

The declaration of an ECA goes hand in hand with the regulation of activities in the area - activities or processes may be prohibited. In deciding on these activities, the Government is required to consider matters as mentioned above in rule 4 of the Rules.[27] The Government shall, in accordance with the standards referred to in rules 12 and 13 of *the Environment Conservation Rules, 1997*[28], specify the activities or processes which cannot be continued or initiated in an ECA.As per the Rules, notwithstanding anything contained in any other law, the class of land of any ECA cannot be changed without permission of the DoE.[29] To manage the *sayrat mahals*[30] in an ECA, the Ministry of Land in consultation with MoEF and other concerned ministries and departments will issue necessary directions in this regard.[31] After issuing a notification–declaring an ECA, DoE will issue a site specific plan for that particular ECA for the purpose of management and development of that ECA.[32]

The Rules provide that any ECA can be conserved and managed by way of a public-private joint initiative.[33]If any registered and non-profit non-government organisation (NGO)is interested in participating in the management of any ECA or part thereof, it can apply to the Director General (DG) of DoE. After necessary inquiry, if the DG is satisfied by considering its conservation and development proposal, funding procedure etc., s/he can enter into a contract with that organisation. After that, the DG or any committee or any person authorised by them will visit the area and will monitor and assess the progress of implementation of management and development plans.

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[26] ibid, rule 17.
[27] ibid, rule 18.
[28] The principal Rules under the *BECA, 1995*. Rule 12 reading with schedule 2-8 deals with determination of environmental standards of air, water, sound, odour; and rule 13 reading with schedule 9-12 deals with determination of the standards for discharge and emission of waste.
[29]*The ECA Management Rules 2016*, rule 19.
[30] Some places used by common people and managed or leased by the government.
[31]*The ECA Management Rules 2016*, rule 20.
[32] ibid, rule 21.
[33] ibid, rule 22.

The Rules furthermore provide for the establishment of an Ecology Management Fund.[34]Money for this Fund is obtained from *inter alia* the following sources: the national budget; subject to the approval of the government, foreign individuals or governments, any international organisation or institution; native individuals or authorities; and fees charged under the Rules. The Fund can be utilised for preparing, processing, implementing, monitoring and assessing the plans and for incentives. Necessary money can be allocated to the *Upazila* Committees and Village Conservation Groups. The Fund will be managed by the DoE and it is also subject to regular audits.[35]In every year the DoE will prepare an annual assessment report on the performance and achievement of Village Conservation Groups and on that basis it can give incentives to those Groups.[36]

The Rules permit any survey, and scientific research to be conducted in any ECA. Such activities are, however, subject to the requirement to obtain permission from the DoE. Finally, the DoE is mandated by the Rules to submit an annual assessment report on ECAs and an ecological report after every five years to the government. The DoE has to follow the directions given by the government on the basis of these reports.

[34] ibid, rule 23.
[35] ibid, rule 24.
[36] ibid, rule 25.

Current scenario of Ecologically Critical Areas of Bangladesh

On the basis of the power to declare ECAs as set out under the BECA, 1995, and before framing of the Rules, the MoEF, has to date declared the following areas as ECAs:[37]

	Name of ECA	Ecosystem type	Location	Area (ha.)	Declaration date
01	Sundarbans (10 km landward periphery)	Coastal-Marine	Bagerhat, Khulna and Satkhira	292,926	30/08/1999
02	Cox's Bazar-Teknaf Peninsula	Coastal-Marine	Cox's Bazar	20,373	19/04/1999
03	St. Martin' Island	Marine Island with Coral reefs	Cox's Bazar	1,214	19/04/1999
04	Sonadia Island	Marine Island	Cox's Bazar	10,298	19/04/1999
05	Hakaluki Haor	Inland Fresh Water Wetland	Sylhet and Moulavibazar	40,466	19/04/1999
06	Tanguar Haor	Inland Fresh Water Wetland	Sunamganj	9,797	19/04/1999
07	Marjat Baor	Ox-bow Lake	Jhenaidah	325	19/04/1999
08	Gulshan-Baridhara Lake	Urban Wetland	Dhaka City	101	26/11/2001
09	Buriganga	River	Dhaka	Total area of 4 rivers is 7,607 (including foreshore and river bank)	01/09/2009
10	Turag	River	Dhaka		01/09/2009
11	Sitalakhya	River	Dhaka		01/09/2009
12	Balu	River	Dhaka		01/09/2009
	Total Area under ECA			**383,105**	

The Government in the Gazette notifications declaring the above ECAs, prohibited some activities or processes, which cannot be initiated or continued in an ECA, including felling or collecting trees; hunting, catching or killing wild animal; fishing and other activities those are harmful for aquatic life; industrial establishment; polluting water by disposing waste; and any other activity that could destroy or change the natural characteristics of soil and water. Continuing any such activities or processes in any of the ECAs is punishable with imprisonment up-to 2 years, or fine up-to BDT 2 *lac* for the first offence; for the repetition of

[37] Source: DoE, mentioned in '*Bangladesh Environment and Climate Change Outlook 2012*', page 53.

the same offence the offender will be punishable with imprisonment up-to 10 years or a fine up-to BDT 10 *lac*.[38] Establishment of brick kiln in or within minimum 1 kilometer distance from the boundaries of any ECA is also prohibited and punishable.[39]

Concluding Remarks

The promulgation of the Rules has great significance for the protection and improvement of the environment in Bangladesh. The Rules have introduced many innovations in the management of ECAs, which include, *inter alia*, public participation in environmental decision-making, proper monitoring by the responsible authority, reporting to the government, a specialised funding mechanism, participation of local communities in resource management, alternative livelihood generation for affected people, incentives for local communities involved in management, the preparation of site specific plans for the management of ECAs, and the encouragement of public-private partnerships for environmental management.

Despite these positive attributes of the Rules, there are some practical hurdles for the implementation of the Rules. In the first instance, the Rules have not established any independent institutional mechanism. Not a single dedicated post/office has been created by the Rules. It shares the existing institution i.e. the DoE for the management of ECAs. Though the Rules provide that, an officer of the DoE will carry out the secretarial functions of the District, Upazila and Union committees, the DoE only has offices in 22 out of 64 districts, and has no office in any Upazila or Union. Thus, for practical purpose of management of ECAs, one independent cell in the headquarter of DoE and at least one office of the DoE in each district would need to be established to oversee the implementation of this Rules.

Second, most of the functions of the Committees are advisory in nature and some of the functions of the various committees overlap and in some instances appear to be contradictory (for example, the functions of District and Upazila Committees in terms of generating alternative livelihood for affected people overlap and are contradictory insofar as the National Committee may make recommendations on the matter while the District and Upazila Committees have a legal obligation to address this issue; and initiating legal proceedings against any prohibited activities in ECAs). Lack of power and coherence will undermine the achievement of the objectives of the Rules.

[38] See *the Bangladesh Environment Conservation Act* (n 1) section 15(1).
[39] See *the Brick Manufacturing and Brick kilns Establishment (control) Act 2013*, section 8(1)(e). Bangla text of this Act was published in the Bangladesh Gazette, extra-ordinary issue of 20.11.2013.

The Rules also provide for direct legal action by the Committees. As the Rules are framed under the BECA, 1995, any case under the Rules has to be initiated in the Environment Courts.[40] No person or group of persons or a committee can file a case directly to the Environment Courts.[41] Which will further hinder the enforcement of the Rules.

Furthermore, while the attention being paid by the Rules to the need to create alternative livelihoods for affected people is laudable, the creation of such alternative livelihoods is not coupled with access to funds from the Ecology Management Fund. Finally, the Rules deal primarily with procedural matters without prescribing substantive rights or obligations. Without the imposition of substantive obligations and the creation of rights, the generalised penal provision in the Rules, to the effect that "violation of any provision of these Rules will be an offence punishable with imprisonment up-to 2 years or with fine up-to BDT. 2 *lac* or with both" will likely prove difficult to enforce in a court of law.[42]

For the effective implementation of this Rules, the above shortcomings and inconsistencies should be removed and a funding mechanism should be established with regular and adequate finance flows.

[40] In 2010 the '*Environment Court Act',* which repealed the earlier Environment Court Act of 2000, was passed. At present, three Environment Courts in Dhaka, Chittagong and Sylhet division of Bangladesh are functioning. An Environment Court can entertain offences and claims for compensation under the *BECA, 1995* and Rules made there under.

[41] The primary responsibility to file a case in the Environment Court is vested to the DoE. As per Ss 6(3), 7(4) of *the Environment Courts Act 2010*, no Environment Court shall receive any claim for compensation or complaint of offence under environmental law except on the written report of an Inspector of the DoE. An individual who wants to file a case, at first has to present a written request to the Inspector to accept a claim for compensation/ a complaint if the Inspector thinks it fit, s/he can only file a case to the Court. For more see, Md. Akhtaruzzaman and Imtiaz Ahmed Sajal, 'Common People's Access to the Environment Courts of Bangladesh' (2016) 15 Journal of Judicial Administrative Training Institute 211.

[42] ibid, (n 3) rule 27.

COUNTRY REPORT: THE PEOPLE'S REPUBLIC OF CHINA

Forest Law (2016 Revision Exposure Draft) and Concerns on Biological Diversity and Sustainable Development

Jingjing Zhao*

Introduction

Forestry plays an important part in both environmental protection and economic development in China. The latest 8th National Forestry Inventory (2009 - 2013) suggests that China owns a national forest area of 2.08 million hectares (ranking 5th in the world) and forest reserves of 15.137 billion cubic meters (ranking 6th in the world). Among them, the artificial plantation area and forest reserves are respectively 0.69 million hectares (ranking 1st in the world) and 2.483 billion cubic meters.[1] However, the per capita forest area in China is as low as ¼ of the world's average and the per capita forest reserves is only 1/7 of the world's average.

China is committed to both the protection of biological diversity and the aim of sustainable development, both of which should be included and implemented in forestry legislation and regulations. China has made consistent efforts to address afforestation, reforestation, natural forest protection and with the construction of natural reserves. Forest coverage in China has been improved from 8.6% in the early 1950s to 21.63% in 2014.[2] However, the development of legislation protecting forests has weighted forest coverage as the most significant indicator of forest health with little consideration given to other indicators such as biological diversity. This has resulted in excessive uniformity of forests in certain local areas.[3]

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[1] Available at: http://www.forestry.gov.cn/main/304/content-661220.html.
[2] Available at: http://www.yicai.com/news/5130060.html.
[3] ibid.

Relevant law and policy concerning Forestry

Forestry in China is primarily regulated by the *Forest Law 1984*.[4] The existing *Forest La*w was originally issued by the 7th Meeting of the 6th Standing Committee of the National People's Congress (SCNPC) on 20 September 1984. After a devastating flood in 1998, China realised the importance of protecting forest resources, and decided to carry out "afforestation, reforestation, vegetation restoration and ecological protection"[5] and started the "natural forest protection project".[6] The *Forest Law* was subsequently revised by the 2nd Meeting of the 9th SCNPC on 29 April 1998. Its aim is to protect, nurture and rationally utilise forest resources, to accelerate afforestation, to play its roles on soil and water conservation, climate regulation, environment improvement and supplying forest products, and to meet the needs of socialist construction and people's lives.[7]

However, nearly 20 years after its amendment, the existing *Forest Law* is deficient in appropriately controlling the continuous development of forestry in the current circumstances. Criticisms are that it has not reflected the role of fundamental law on forestry, has inverted the relationship between ecology and economy by focusing on the management and harvest of forests instead of the protection of forest ecology,[8] that it does not fully reflect the aim of sustainable development, and that it does not reflect the fact that China's forestry industry has changed from an industry to a public welfare model, and that the primary task of the development of forestry is ecological construction.[9]

On 27 September 2016, the National Bureau of Forestry published the *Forest Law (2016 Revision Exposure Draft)*, and invited the public to comment on it by 25 October 2016. The amendment process of the *Forest Law* was executed by the National Bureau of Forestry. The Draft contains 7 Chapters and 75 Articles, seeing an impressive extension of the existing law. Chapter 1 lists the main purposes and general principles of the revised *Forest Law*. Chapter 2 refers to forest right management. Chapter 3 regulates the protection of forests. Chapter 4 specifically refers to afforestation and forest management. Chapter 5 sets up mechanisms of deforestation. Chapter 6 regulates legal liabilities and comprises 10 articles.

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[4] As amended by the Standing Committee of the National People's Congress respectively in 1998.
[5] X Zhang, 'Comparative Study on Forestry Legislation Law Between United States of America and China and Its Benefit to the Amendment of Chinese Forest Law' (2005) 18(4) *World Forestry Research* 64, 66.
[6] ibid.
[7] The Forest Law 1984, Article 1.
[8] Available at: http://npc.people.com.cn/n1/2016/0503/c14576-28321110.html.
[9] X Zhang, 'Comparative Study on Forestry Legislation Law Between United States of America and China and Its Benefit to the Amendment of Chinese Forest Law' (2005) 18(4) *World Forestry Research* 64, 67.

On 17 October 2016, the China Law Society undertook a *Legislative Expert Consultation on* the *Forest Law (2016 Revision Exposure Draft)*, involving representatives from relevant governmental sectors, the Supreme People's Court, academia and industry.[10] The participants argued that it is necessary to revise the existing *Forest Law* to adapt to the current circumstances. They also believed that the guiding ideology of amending the law should be based on the market and ecological demands of forestry development, which should also be forward-looking.[11] The delegates also stated that the *2016 Revision Exposure Draft* had seen improvements but was not fully satisfactory from a legislative perspective. They recommended that it should be modified and improved from the aspects of, for example, legislative orientation, reform of forest right system and forest logging system, public litigation system, interlinking and coordination with the *Civil Procedure Law*,[12] the *Environmental Protection Law*, [13] the *Administrative Procedure Law*[14] and the *Criminal Law*[15], the structure of chapters, the definition of core concepts, and literal expression.[16]

The *Forest Law (2016 Revision Exposure Draft)* and biological diversity

'Biological diversity' means 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.[17] It plays a key and significant role in human survival and continuity and is widely accepted by the international community, although the crisis of the rapid decline in biodiversity is increasingly serious.

Forests are an important carrier of biodiversity. Forest biodiversity is generally defined as 'all the life forms found within forested areas and the ecological roles they perform', including

[10] Available at: https://www.chinalaw.org.cn/Column/Column_View.aspx?ColumnID=922&InfoID=21463.
[11] ibid.
[12] The Civil Procedure Law of People's Republic of China 1991, as amended by the Standing Committee of the National People's Congress respectively in 2007 and 2012. Available at: http://www.npc.gov.cn/npc/xinwen/2012-09/01/content_1735841.htm.
[13] The Environmental Protection Law of People's Republic of China 1989, as amended by the Standing Committee of the National People's Congress in 2014. Available at: http://www.npc.gov.cn/npc/xinwen/2014-04/25/content_1861279.htm.
[14] The Administrative Procedure Law of People's Republic of China 1989, as amended by the Standing Committee of the National People's Congress in 1990. Available at: http://www.gov.cn/flfg/2006-10/29/content_1499268.htm.
[15] The Criminal Law of People's Republic of China 1979, as amended by the Standing Committee of the National People's Congress in 1997. Available at: http://www.npc.gov.cn/wxzl/gongbao/2000-12/17/content_5004680.htm.
[16] Available at: https://www.chinalaw.org.cn/Column/Column_View.aspx?ColumnID=922&InfoID=21463.
[17] The Convention on Biological Diversity, Article 2.

trees, other plants, animals and micro-organisms that inhabit forest areas and their associated genetic diversity.[18] Worldwide, forests have suffered from dramatic decline of biodiversity. In the last 8000 years, the earth has seen around 45% of its original forest cover disappeared, most of which happened in the past century, with about 13 million hectares of its forests being lost each year.[19]

China is a party to the Convention on Biological Diversity (CBD) and is committed to protection of biodiversity, including forest biodiversity. The CBD is a framework treaty with the guiding objectives of pursuing the conservation and sustainable use of biological diversity and its components, and the fair and equitable sharing and balancing of the benefits of the utilization of genetic resources.[20] It entered into force on 29 December, 1993, and had 196 Parties as of July, 2016.[21]

The existing *Forest Law* of China does not have any reference to the protection of biodiversity. It is hoped that the revised *Forest Law* will serve as one of the substantive laws on the protection of biodiversity, and treat the forest biodiversity ecosystem service function as one of the most important values.[22]

However, the *Forest Law (2016 Revision Exposure Draft)* does not appear to put adequate attention on biodiversity, and only refers to biodiversity once in Article 27 of Chapter 3 (The protection of forests), which states that: 'the country implements the basic forest protection system. The following woodlands shall be classified as basic forest according to the planning on woodlands protection and use, strictly protected, and managed in a sustainable way.……(4) national important natural woodlands and biodiversity conservations'.

The *Forest Law (2016 Revision Exposure Draft)* and the aim of sustainable development

Sustainable development is normally defined as 'development that meets the needs of the present, without compromising the ability of future generations to meet their own needs'.[23] It serves as one of the most important principles of environmental law. The authority and significance of the aim of sustainable development are endorsed by the *opinio juris* of states,

[18] Available at: https://www.cbd.int/forest/about.shtml.
[19] Available at: https://www.cbd.int/forest/problem.shtml.
[20] The CBD, Article 1. These guiding objectives set out in Article 1 are further elaborated on as binding commitments in the substantive provision of Articles 6-20.
[21] The list of Parties is available at: https://www.cbd.int/information/parties.shtml, last accessed on 5 October 2016.
[22] Available at: http://www.yicai.com/news/5130060.html.
[23] World Commission on Environment and Development (WCED), *Our Common Future* (Oxford University Press, 1987), 43.

and have been widely accepted by numerous governments at both the international and domestic levels, by a large number of treaties, by various international organisations, and by the majority of literature.[24]

The aim of sustainable development is accepted and promoted by the Chinese government. On 24 June 2003, the Chinese Communist Party Central Committee and the State Council jointly published their *Decisions on Accelerating the Development of Forestry*, and decided to establish the path of sustainable development of forestry through ecological construction.[25] The *Decisions* set out the direction for the future amendment of the Forest Law.

However, the existing *Forest Law* does not contain any direct reference to the aim of sustainable development, although it reflects this aim in some of its provisions. For example, Article 8 states that the country will 'impose a quota on forest cutting, encourage forest planting and afforestation, and expand forest coverage'. Article 35 also states that 'the tree cutting organisations and individuals must finish the task of reforestation in accordance with the acreage, numbers, species and deadlines as stated in the cutting license. The acreage and numbers of reforestation must be no less than the cut ones.' These requirements ensure that trees cut will be reforested and reflect the aim of sustainable development.

These provisions are kept and slightly revised in the *Forest Law (2016 Revision Exposure Draft)*. The Draft's Article 8 states that the country will 'impose a quota on forest cutting, implement woodlands usage control and quota management system'. Similar to Article 35 of the existing law, the Draft's Article 60 states that 'the tree cutting organisations and individuals must finish the task of reforestation in accordance with relevant requirements. The acreage of reforestation must be no less than the cut one.'

The *Forest Law (2016 Revision Exposure Draft)* does not only inherit the existing arrangements which reflect the aim of sustainable development, it also refers directly to the aim in a number of provisions. The Draft's Article 1 states that one of the aims of the revised *Forest Law* is to promote the sustainable development of the society and economy. Its Article 27 states that the listed types of woodlands must be managed in a sustainable way, including: '(1) woodlands used for sustainable forest management; (2) woodlands in prohibited zones and key ecological function areas; (3) woodland in ecologically important, ecologically fragile, and ecologically sensitive areas; (4) national important natural woodlands and biodiversity

[24] M Jacobs, *The Green Economy: Environment, Sustainable Development and the Politics of the Future*, (Pluto Press, 1991), 59; P Sands, 'International Law in the Field of Sustainable Development' (1994) 65 *British Yearbook of International Law* 303, 305-15.
[25] Available at: http://www.forestry.gov.cn/Zhuanti/content_gzhy/267626.html.

conservations; and (5) other basic forest woodlands as classified by the State Council'. The Draft's Article 54 also sets up the national forest certification system and promotes sustainable forest management.

Conclusion

The *Forest Law (2016 Revision Exposure Draft)* sees some - although rather limited - improvement from the existing *Forest Law* in relation to the protection of biological diversity. It refers once to biodiversity conservation in Article 27, while the existing law does not specifically regulate this issue. Moreover, as stated above, the Revision Draft also directly refers to and sets out substantive mechanisms for achieving the aim of sustainable development in its Articles 1, 8, 27, 35, 54 and 60, while the existing *Forest Law* only reflects sustainable development in Articles 8 and 35.

It is widely accepted that the revised *Forest law* should and could play a key part in protecting forest biodiversity and the sustainable use and development of forests. However, it is at least debatable whether the *2016 Revision Exposure Draft* serves this aim adequately. It is envisaged that the Draft will be further revised before being passed by SCNPC in the future. Whether it will clarify and amplify its position in relation to biodiversity and sustainable development remains to be seen.

COUNTRY REPORT: CZECH REPUBLIC

Minor amendments to various laws

Milan Damohorsky* & Petra Humlickova**

Introduction

In 2016, one new act and lot of amendments to laws in the environmental field were adopted in the Czech Republic. In this article, therefore, we introduce a lot of minor amendments to various laws, including the Clean Air Act, the Act on Nature and Landscape Protection, the Act on EIA, and the Act on the Protection of Agricultural Land. None of these minor amendments has any significant effects on environmental law in the Czech Republic.

Recent Statutory Developments – Air Pollution

The amendment to the Clean Air Act[1] is a missed opportunity to improve the situation of air pollution in the Czech Republic, which is considered one of the worst in the EU.[2] The amendment mainly contains numerous technical adjustments. The first important amendment concerns the introduction of low-emission zones, which is a measure of a general nature announced by the municipal council in different situations – firstly, in the case of exceeded pollution limits, or secondly in the spa cities (such as Carlsbad) or thirdly, in the cities in specially protected areas.

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[1] No. 369/2016 Coll.

[2] See: http://praguemonitor.com/2015/06/11/poll-czech-air-pollution-among-worst-eu .

Municipalities are empowered to limit the usage of motor vehicles in these low-emission zones by defining the territory of a low emission zone and the emission category of vehicles that are allowed to enter the zone. There are a number of exceptions from the general low-emission zones rules, which makes regulation stricter (e.g. smog situation) or, vice-versa, softer (e.g. residents, sickness, helplessness or severely disabled persons, transit sections of motorways, public transport, cultural and social events, transport for hospitals, social institutions and educational facilities). The beginning and end of the low-emission zone is indicated by traffic signs and the entrance to the low-emission zone is allowed only for motor vehicles marked with an emission plaque conforming with the permitted emission category. By the end of 2016, no low-emission zones had been declared.

The second important change relates to the **control of household heating**. **Municipalities are now permitted to control** household heating. Household heating refers to the stationary combustion source in a family house, apartment or building for household use (in case of usage for business activities the controls were possible before the amendment). If there is a reasonable suspicion that the operator burns fuel that does not meet the statutory requirements (primarily it will be waste incineration), and the municipality cannot prove this without inspecting the heating furnace or the fuels used, the official of the municipality has the right to enter the family house, apartment or building. **However, t**his right of the municipal official arises only upon prior written notice to the operator of the heating place. This formal notice must include guidance on the obligations under the Clean Air Act and warning about the consequences of a justified suspicion of breach of the Clean Air Act.

The control of household heating is very controversial and some politicians consider it unreasonable interference with the domestic freedom of citizens, because of the the conflict between the constitutional right to domestic freedom and the right to life, health and favourable environment, that are also guaranteed by the Constitution. This conflict will probably be considered by the Czech Constitutional Court in the future.

The third amendment regulates a very specific question, namely the incorporation of **biofuels** into fuels. The suppliers of gasoline and diesel have to reach some minimum content of biofuels in their gasoline and diesel. After the amendment, the suppliers are allowed to use only advanced biofuels. Advanced biofuels have to be produced from used cooking oils, fats or material recycled from non-food biomass (algae, straw, glycerol, etc.). The change originates from a new EU Communication[3] that favours the use of waste fats for biofuel production.

The Ministry of Environment is currently facing four lawsuits against already approved **programs for improving air quality.** The programs have been adopted in Prague, Ostrava, Usti nad Labem region and in Brno. Air pollution in these areas has, for many years, exceeded the limits of national and union law set for dust (PM10), nitrogen oxides and carcinogenic benzo(a)pyrene. These programs are however subject to criticism as they do not appear to achieve the fundamental goal - namely to ensure compliance with statutory limits in the shortest possible time - because they do not define concrete measures for a given area or set out clear timetables according to which measures must be implemented.

Recent Statutory Developments – Nature Protection

A further amendment introduced in 2016 is an amendment to the Act on the Protection of Nature and Landscape[4] which fundamentally changes the rules for management of national parks. This amendment was controversial mainly due to pressure for adverse changes as a reaction on the situation in the Šumava National Park[5]. The amendment significantly simplifies the legislation and makes it transparent for all Czech national parks. The amendment, for example, establishes a 15-year moratorium on changes of zoning in national parks, ensuring the stability of the parks, especially that of Sumava.

The statutory moratorium will prevent changes in the conservation management of national parks with each new incoming minister or the director of the park. The amendment also does not extend or diminish the current non-intervention area in Šumava National Park. The amendment unfortunately, however, also lifts the ban on walking outside of marked paths in the first “core” zones national parks, which are most protected. This ban will be valid only in the so-called resting areas, which should not be larger than the current first zones of national parks and the restrictions will be functioning only for a certain part of the year, in other time they will be freely accessible. As a result, national parks will be more open to tourists. The amendments furthermore now prevent the State from selling state-owned land within the territory of national parks. The Ministry of Environment has also prepared a decree no. 271/2015 Coll., on zoning of the Giant Mountains National Park and a technical amendment

[4] No. 319/2016 Coll.

[5] A few years ago, a change in the National Park Šumava management allowed for unlimited development within the park. After the change of the Government in 2014, the new director of the national park immediately revised and changed the unsustainable policy to a more sustainable management practise. However, the pressure for further development with the park (e.g. building new roads, ski slopes, etc). is still present. See:

to the Act on National Park Czech Switzerland,[6] which addresses the relationship of the park administration to Service Act.

In 2016 the government also approved a regulation extending the list of Sites of Community Importance (SCIs) protected under the Natura 2000 Network. The Elbe Canyon (including site Porta Bohemica) was added to the list, but without unique muddy sediments where the specific vegetation grows (the reason is the future construction of the weir at Decin that will be impossible in the case of correct size of listed site). The government has repeatedly refused to extend the list to include the Prelouc meadows. The European Union is conducting proceedings in this case with the Czech Republic for a breach of EU law.[7]

The Government approved the National Biodiversity Strategy of the Czech Republic which addresses the period up to 2025, and aims to prevent the loss of plants and animals in the landscape. The strategy, however, is criticised because of the lack of certainty and obsolescence that is not responding to scientific progress in nature conservation.

In August 2016, an EU Regulation[8], according to which member states are required to strictly protect their territory against encroachment of non-native and invasive natural species entered into force**.** The European Commission approved an EU wide list of prohibited animals and plants in July. This list, however, does not list some non-native flora and fauna already found in the Czech Republic and which cause harm to nature, the economy and human health (such as giant hogweed and knotweed). The Czech Republic therefore plans to include these species of non-native fauna and flora on its own national list of prohibited species.

Further amendments were introduced in the agricultural sector during 2016. An amendment to the Act on Biocides[9] has introduced new fees for the authorisation of pesticides and penalties for the illegal use of biocides, and an amendment to the Act on Agricultural Land[10] extends the exemptions from the obligation to pay a fee for the use of agricultural land for non-agricultural purposes, which will apply to all types of road infrastructure (hitherto only roads managed by the state and not by provinces and municipalities were exempted from the fees). The use of agricultural land for housing purposes remains subject to the requirement to obtain permission and payment of the prescriebd fee. In a related matter, the Act on

[6] No. 365/2015 Coll.
[7] See: http://www.praguemonitor.com/2016/02/05/czechs-face-sanctions-not-putting-labe-valley-natura-list.
[8] EU Regulation 1143/2014 on Invasive Alien Species.
[9] No. 324/2016 Coll.
[10] No. 184/2016 Coll.

Accelerating the Construction of Transport Infrastructure was amended by act no. 49/2016 Coll. The amendment sets a fixed price for the purchase of agricultural land in case of the construction of important roads at eight times of their value. The amendment is a reaction to problems with the purchase of such land at low prices.

Recent Statutory Developments – Other Regulation

The amendment to the Mining Act was proclaimed as law no. 89/2016 Coll. The amendment doubles the payments for extracted minerals (possibility of up to 10% of the market price),[11] while also changing the proportion of the fee redistribution between communities and the state. The government is now preparing a regulation setting a specific amount of reimbursement for individual minerals. The novel remaining amendment provides that payment for the extracted minerals could be increased only once every five years, and only in accordance with the development of market prices. Thus, the State will not be able to flexibly change the fee amount.

One significant legislative development is the introduction of a brand new Atomic Act.[12] The act provides for detailed regulation of atomic facilities. However, the main controversial issue is that this Act makes no provision for public participation in proceedings under the Act, the missing involvement of affected communities in the selection process of a deep geological repository for radioactive waste or ineffective increase of the limits for damages caused by the nuclear power plant accident.

An amendment to Act on Carbon Capture and Storage[13] responds to the amendment of the relevant EU Directives. The amendment adds the definition of a few technical terms such as ‚water column'. The technology will probably not be used in greater extent in the Czech Republic due to the geological conditions and it is forbidden by this act until 2020.

The Integrated Pollution Register is a publicly accessible database of polluters. It registers 93 different pollutants monitored in all types of releases and transfers, according to the specified threshold, and also production of waste. The amendment of the Integrated Pollution Register[14] reduced the number of polluters, which are required to report their emissions to this register by about one-third (ie approx. 1700-1800 of small polluters of total 5000). The

[11] In terms of the Mining Act, mining activities are subject to the requirement to pay a percentage of the value of the extracted minerals to the State and communities on the basis that the minerals are "bought" from the State.
[12] No. 263/2016 Coll.
[13] No. 193/2016 Coll.
[14] No. 255/2016 Coll.

amendment affects only the number of registrants, rather than editing the list of reported substances. The register continues to list substances beyond Union requirements, such as potentially carcinogenic styrene.

A controversial amendment to the Act on Environmental Impact Assessment[15] was approved very quickly. The amendment converts the selected important transportation construction to a specific mode. This means that it will no longer be necessary to repeat the process of assessing the environmental impact, even where this assessement was undertaken more than 10 years ago and information from the assessment is therefore obsolete. The approved amendment lays down the conditions under which, instead of repeating the assessment, it will be sufficient to obtain the approval from the Ministry of the Environment. It must be a project listed in a priority transport plan, which lies on the trans-European transport network, it must have obtained planning approval no later than March 31, 2015, in the past received a positive EIA opinion and determined by the government in its decree. Among the projects are listed the bypass of Ceske Budejovice on the motorway D3, bypasses of Revnicov, Lubenec, Krusovice on the highway D6 or bypass of Frydek Mistek.

Finally, the amendment of the Water Act[16] introduces minor changes to this law. One of them is the removal of certain competencies of the Czech Environmental Inspectorate in the control, for example, of discharge of wastewater into sewer systems, which will now be controlled by other water authorities. The Ministry of the Environment by its own motion removed from the amendment the possibility of raising fees for the taking of undergroundwater.

Conclusion

In 2016, a lot of amendments to laws in the environmental field were adopted in the Czech Republic. None of these minor amendments has any significant effects on environmental law in the Czech Republic, as most of them only petrifies the current state of protection of the environment. The European Union can be clearly identified as a source of positive changes.

[15] No. 256/2016 Coll.
[16] No. 250/2016 Coll.

COUNTRY REPORT: ITALY

A short report on the Italian Green Economy

Carmine Petteruti*

What is the Green Economy?

Global interest in the Green Economy started in the early '70s, thanks to the work of the United Nations Organization (UN). This interest led to the development of a specific branch of international law (called international environmental law), which prompted and persuaded many Nations to assume obligations regarding the achievement of environmental targets.[1]

A vague definition of the term "Green Economy" was established by the United Nations Environment Programme,[2] which stated that it is an economy: "(…) *that results in 'improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities"*[3]. The UN provided an "extended" notion of the Green Economy, which is defined as "*(…) an omnibus term, like sustainable development itself*";[4] however there are still many doubts regarding this concept, which is often confused with other similar ones. Thus, no universally accepted definition of the term "Green Economy" currently exists within the UN context.[5]

The European Environment Agency stated that: "*Green Economy can be understood as one in which environmental, economic and social policies and innovations enable society to use resources efficiently – enhancing human well-being in an inclusive manner, while maintaining the natural system that sustain us*".[6] The European Union makes constant references to the

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[1] F. Ferri, *Diritto dell'Unione Europea e green economy: riflessioni su un rapporto ancora troppo "verde"*, in *Studi sull'Integrazione Europea*, 1, 2015, p. 110.

[2] UNEP, *Towards a Green Economy - Pathways to Sustainable Development and Poverty Eradication,* 2011.

[3] Concept that focuses more on the positive effects, disregarding negative ones such as damages and environmental fleecing.

[4] UN General Assembly, Preparatory Committee for the United Nations Conference on Sustainable Development, First session, 17-19 May 2010.

[5] F. Ferri, op. cit., p. 122.

[6] *Towards a Green Economy in Europe EU Environmental Policy Targets and Objectives 2010-2050*, Report EEA, 2013, p. 5.

Green Economy in its legislation, although it does not clarify the meaning of the term explicitly. The lack of precise definition of the concept can be seen both as an advantage, if one considers the flexibility that comes from an undetermined concept, and as a disadvantage, related to the lack of certainty.[7]

Notwithstanding the lack of definition, the term "Green Economy" denotes a broad concept which is capable of different meanings. It could be defined as a model of economic sustainable development which takes environmental damage caused by the processing of raw materials into account.[8] Some of the activities that would generally be considered as forming part of the Green Economy include renewable energy production, activities that foster a decrease in consumption, waste recycling, reuse of raw materials, soil and water protection, organic farming enhancement, youth employment planning. Although it is difficult to define precisely what components make up the Green Economy, there is no doubt that it involves economic activities that are focused on limiting adverse environmental impacts, focusing mostly on the challenge of global warming, without neglecting other sectors (such as waste, water, etc…).

However, many States define the Green Economy in accordance with their national priorities on the basis of their capability and available resources[9]. Indeed, since the '70s, from the first major oil crisis governments decided to invest in research development and in renewable technology, while from the '90s onwards the emphasis was placed on environmental issues and climate change[10]. The United Nations Organization recommended that all countries should invest at least 2% of their GDP in the Green Economy.

However, developing countries consider the implementation of programmes targeting the creation of a Green Economy too onerous to support, because of uncertain benefits in the long term.[11] In contrast, industrialised countries pursuit the Green Economy as a chance to realize job creations and better resource efficiency.[12] Many people think that the Green

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[7] F. Ferri, op. cit., pp. 126 and 131.
[8] A. Muratori, *Sì ai velocipedi, no ai mozziconi, a maggior gloria della green economy*, in *Ambiente & Sviluppo*, 4, 2016, p. 270.
[9] P. Acconci, *La "green economy" e la realizzazione dei diritti dell'uomo alla base dello sviluppo sostenibile*, in *Diritti umani e diritto internazionale*, 6, 2012, p. 587.
[10] M. Meli, *La nuova disciplina delle transazioni nelle procedure di bonifica e di riparazione del danno ambientale concernenti i siti di interesse nazionale (L. 28 dicembre 2015, n. 221)*, NLCC, 3, 2016.
[11] F. Ferri, op. cit., p. 116.
[12] Another factor that seems to encourage the focus on the environment policies is the growing of consumers awareness. It cannot overlook that the United Nations Organization has dealt with this risk, as the green economy cannot be aimed a wider gap between the advanced and backward countries. *Green Economy: Everyone's talking about it: An Analysis of the UNCSD Zero Draft Text Submissions,* Report by the Green Economy Coalition, 2012, p. 1.

Economy could be the answer to overcome the current economic crisis and to defeat poverty through the promotion of scientific research and new technological development.[13]

Sustainable development is a concept closely linked to the idea of the Green Economy.[14] The close relationship between the Green Economy and sustainable development[15] emerged since the Rio+20 Conference[16] which approved the document entitled *The Future We Want*[17]. This document identifies the Green Economy as an economic growth model, compatible with environmental protection, and as an instrumental target for the promotion of sustainable development. The document refers to the Green Economy as a concept based on Western economic and legal principles but it does not provide a clear and unambiguous definition of the Green Economy.[18]

The EU has embraced sustainable development in its most important treaties as a target to achieve. Indeed, in 1986 the EU introduced the concept of environment[19] in the Single European Act and it has always inspired its policy to principles of the Declaration of Rio 1992[20]. In accordance with this policy approach, the EU embarked on a process of harmonisation action among Member States to realise its sustainable development goals. This harmonisation is also now required from State Members to achieve the goals of the Green Economy.

The Italian "Collegato Ambientale"

The law n. 221 of 28th December 2015 includes Environmental provisions to promote Green Economy measures and to rational use of natural resources. The law, which promotes different measures for the growth of the country and its economic development, is also called "Collegato Ambientale" because it is linked to the Stability Law of 2016.

At first, the bill proposed in November 2013 by the Minister of the Environment included only 30 articles in 8 chapters, but it has since grown to 79 articles. The law refers to many subjects

[13] P. Acconci, op. cit., p. 588.
[14] F. Ferri, op. cit., p. 110.
[15] Par. 56, *The Future We Want*.
[16] Rio de Janeiro, 2012 was held 20 years after the Conference on Environment and Development in 1992. After 1992 the enthusiasm for sustainable development concept is decreased increasingly. Even in Johannesburg in 2002, the Rio+10 Conference, showed that States (industrialized or not) reserved themselves to work for sustainable development but, in practice, they do not assume in this regard real obligations.
[17] Consulted entirely at the site *www.uncso/2012.org*.
[18] P. Acconci, op. cit., pp. 587-588.
[19] F. Carpita, A. De Lorenzo, *Biodiversità, una questione fondamentale per la tutela dell'ambiente: il ruolo dell'Ente parco nella tutela delle aree protette*, in *Studi parlamentari e di politica costituzionale*, 2012, 175, p. 12.
[20] Prevention principle, precaution principle, "polluter pays" principle, etc...

such as greenhouse gas emissions, environmental impacts, soil protection, noise pollution, waste management, environmental damage refund, dredging, water management and much more. At the same time, the Italian legislator's attention fell primarily on two points: promotion of the Green Economy and rational use of natural resources[21]. Thanks to this law, the environment becomes a fundamental factor in a new development approach, which considers the environment not as a limit to economic growth, but as an essential factor for a sustainable path.

The "Collegato Ambientale" is a package of measures amending the existing environmental law towards a greener and more sustainable economy. It significantly affects many aspects of environmental law and the economy, through the simplification and promotion of the reuse of resources and environmental sustainability, as well as through incentives which reward good behaviour.

The provisions that concern the Green Economy set out executive measures adopted by the central State and also make provision for some other intervention by Regions. The law, for example, makes provision for the adoption of so-called "Strategy of Green Community" and for the creation of a new voluntary trademark called "Made Green in Italy"[22].
With regard to the former, rural and mountain communities can do different actions to exploit their resources according to a sustainable development plan, i.e.: integrated and certified management of agro-forestry resources, biodiversity management and certification of the wood industry; certified and integrated management of water resource; production of energy from local renewable resources; energy efficiency and intelligent integration of systems and networks; sustainable development of productive activities (zero waste production); mobility services integration; sustainable development of farms with independent energy system based on the production and use of renewable energy resources. However, the law does not announce the way to realise the Strategy of Green Communities because it does not identify the Authority which will approve the Strategy and the juridical nature of the strategy plan. It just specifies that this Strategy should not cause budgetary implications.

[21] A. Muratori, op. cit., p. 269.
[22] Other topics analysed in the law are: The Sustainable Local Urban Mobility, municipalities with more than 100 thousand inhabitants are able to present projects limiting traffic and pollution; incentives for enterprises which remove asbestos, during 2016; Oil Free Zone for municipalities, in order to gradually replace oil and its derivatives with renewable energy; incentives for municipalities which increase recycling and forbid the throwing of cigarette butts, chewing gums and other small waste such as handkerchiefs and receipts; Green Pubblic Procurement (GPP) for Public authorities and facilities to buy energy-efficient lamps for traffic lights; 10 million Euros to remove or demolish buildings located in high hydrogeological risk areas.

Regarding the new voluntary trademark called “Made Green in Italy”, it indicates the environmental footprint of products and it promotes the competitiveness of the Italian manufacturing sector at both domestic and international markets. Art. 21 of the “Collegato Ambientale” introduces a national strategy on the environmental footprint evaluation and diffusion. The strategy uses the Product Environmental Footprint (PEF), a methodology defined by Recommendation 2013/179/UE.

The voluntary national strategy, also provided for by this law, “Made Green in Italy” aims to: promote innovative technologies and production, reduce the environmental impacts of the products during their life cycle; strengthen the image of Italian products, reinforce the environmental qualification of agricultural products, through priority attention to the sustainable production parameters. The “Made Green in Italy” will enable consumers to actively choose green, home-grown/manufactured products.

The draft Regulation REV10 published in June 2016 by Ministry of the Environment provides that the Ministry is responsible of the trademark “Made Green in Italy” and it subscribes licence agreements to use it. The draft Regulations however, do not set out who can acquire the trademark’s licence. It generically refers to “organisations” without any other clarification. The new trademark can, however, be considered as a collective trademark which is governed by Legislative Decree No. 30/2005 (The Industrial Property Code) and Art. 2570 of the Civil Code. The laws state that the trademark can be used by producers or traders who guarantee the origin, the nature or the quality of the products or services.

The Italian Green Economy

The Italian Green Economy is growing in sectors like renewable energy and waste where it contributes to the sustainable economic growth of the country. There are key indicators (as eco-innovation, greenhouse gas emissions, waste recycling, renewable energy, energy efficiency) that may be used to verify the performance of the Italian Green Economy. Many Italian companies focus on innovation and advanced technology. The Green Economy no longer appears to be viewed as an obstacle, rather it is beginning to be viewed by the Italian economy as a development opportunity: the economic crisis also favoured the increase of new innovative technology, although there are still many Italian companies that are reluctant to use ecological production systems.[23] It should be highlighted, however, that despite the economic crisis, approximately 385,000 Italian companies (26.5%) actively promoted or played a part in the Green Economy since 2010. This kind of investment made companies more competitive

[23] F. Ferri, op. cit., p. 109.

increasing their turnover and developed new job profiles. Thanks to the Green Economy, around 250,000 new jobs were created in 2016.

It is clear therefore that despite the economic crisis, Italian companies have not given up on investing in "green" technologies. Indeed, statistical data show that the "Green Italy" represents the best answer to the crisis and the basis for an economic growth. At the same time, environmental sustainability performance is now an important factor in investment decisions because it influences the value of a company in the long term.[24] Thus the "Green" market offers many economic opportunities as it is possible to check in the Directive 20-20-20 and in the EU action plan for sustainable production and consumption[25].

The Italian Green Economy Report published in October 2016, which considers the role of Italy in European economic framework, however showed that there is still much to be done. Although environmental sector recorded good performances, Italy recently stopped the growth of renewable resources investments.

Overall, the Italian Green Economy achieved the best performance compared with other major four European countries (France, Spain, United Kingdom, Germany) despite some weaknesses. However, Italian performance in Green Economy is now at 29th place among 80 countries in the global context. There remains, therefore, much room for improvement and growth, and it is hoped that the new law will make a real contribution to the growth of the Green Economy in Italy.

[24] L. Andriola, M. Jorizzo, P. Sabelli, *Sustainable Investor Relation: comunicare agli investitori tramite le strategie di sostenibilità ambientale*, in *Ambiente & Sviluppo*, 11, 2016.
[25] E. Cancila, *Crisi economica e politiche ambientali: è tempo di Green Deal*, in *Ambiente & Sviluppo*, 8, 2009; M. Zortea, K. Oustadi, *L'ambiente nel semestre di presidenza italiana del Consiglio Ue*, in *Ambiente & Sviluppo*, 4, 2015.

KENYA-COUNTRY REPORT

Forests Conservation and Management Act (2016) and its contribution to the REDD+ regulatory framework in Kenya

Nelly Kamunde-Aquino*

Introduction

REDD+ stands for Reducing Emissions from Deforestation and Forest Degradation and the role of conservation, sustainable management of forests and the enhancement of forest carbon stocks.[1] REDD+ is a component of climate action which focuses on forest related initiatives, whether directly or indirectly. REDD+ originated from the 11th Conference of Parties (CoP) to the member state parties of the United Nations Framework Convention for Climate Change (UNFCCC). Forests play a central role in reducing carbon emissions, and acting as carbon sinks.[2] The operationalisation of REDD+ takes a myriad of alternatives based on countries' opportunities, capabilities, priorities and also emergencies. These initiatives are divided into the preparative stages and the operationalisation stages. The preparative stages require an assessment of whether the law of a country is receptive of REDD+ initiatives and specifically whether there are any evident law-related barriers to effecting REDD+ interventions.

Kenya is undoubtedly on a fast path towards effective climate action. This is evidenced by the passing the Climate Change Act of 2016, among other national efforts.[3] While this Act is the over-arching law regarding all climate actions, it is anticipated that the specifics of climate change initiatives will be contained in a suite of many other legislative documents, whether in the form of self executing policy frameworks, subsidiary laws (existing in other acts), guidelines under the relevant line ministries, or self regulatory initiatives in the private sector, among others.

REDD+, being a component of climate change action, requires regulations that address relevant concerns at both a general and a specific level. From a general perspective, all

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[1] http://unfccc.int/land_use_and_climate_change/redd/items/7377.php last accessed on 3rd March 2017.
[2] It is estimated that the destruction of forests releases 1 gigatonne of CO2 into the atmosphere.
[3] See any ongoing efforts as documented by the Kenya Forests Service at http://www.reddplusinkenya.org/ (last accessed on 12th April 2017).

climate change initiatives (including those related to REDD+) must touch on the overall laws on energy, finance, agriculture, industries, energy among others, for the reason that climate change is the result of the myriad actions of many actors and therefore calls for an equally multi-faceted approach. Following the same logic, REDD+ legal initiatives must be conducted in consideration of as many relevant sectors as possible. The centrality of the laws related to forests however comes in since tree carbon is the nucleus of REDD+ whether we look at it as a place of intervention or as a place of results. This is however not to underestimate the role that can be played by other activities such as changes in the agricultural sector, actions to reduce over-reliance on non-renewable resources, effective carbon trading in tree carbon and land-holding alternatives that impact on tree tenure among others.

This report focuses on the recently concluded forest law, i.e. the Forest Conservation and Management Act (FCMA), and sees how it influences the regulatory discourse for REDD+ in Kenya. The report, besides looking at the FCMA starts by looking at the general obligations that Kenya has with respect to REDD+. It further highlights what, in part, should be considered in ensuring completeness within FCMA in order to ensure accuracy in its role for the implementation of REDD+. In concluding, brief remarks are made on certain legislative and administrative actions that can be proposed to supplement the existing legal framework.

Kenya's obligations as far as REDD+ is concerned

Besides the natural need for self preservation through sustainable development, Kenya has international legal obligations relating to climate change. The UNFCCC, to which Kenya is a State Party contains general climate change obligations,[4] which indirectly call for REDD+ related actions (e.g. Sustainable Forests Management) as an operative of climate change.

The Consolidation of forests related climate change efforts into REDD+ can be traced back to CoP 3 to UNFCCC, which led to the Kyoto Protocol, which protocol mentioned the role of forests and among others, urging States to promote sustainable Forest Management, afforestation and reforestation.

The Paris Agreement, which was adopted at CoP 21, is also another profound acclamation of a treaty obligation for countries (Kenya included) as far as REDD+ is concerned. Article 5 of the Agreement is hailed as ensuring a promise of hope for REDD+ through providing obligations for rich countries to give results based payments for emission reduction initiatives.

[4] See for instance the Commitments of State Parties under Article 4, UNFCCC 1771 UNTS 107.

Kenya derives an obligation from this agreement to ensure that any funds that are received from related programmes are used for the intended purposes.

Following the enactment of the 2010 Constitution where international law is deliberately considered to be part of Kenyan Law, it is safe to assume that Kenya closely embraces at least the principles and concepts that exist in those international legislative documents that it has signed, ratified or acceded to. In addition to Kenya's presence and participation in these treaties, legislation at home is still useful as it creates a profound affirmation that Kenya pursues the practical implementation of its obligations in the treaties, through assigning responsibility by way of financial and governance structures. The FCMA is one of the frameworks under which such practical steps can be considered. Through various stakeholder processes[5] regarding REDD+, it was observed that the FCMA, among other laws[6] is one of the important laws to consider REDD+ provisions.

An appraisal for the Forests Conservation Management Act and REDD+ regulatory framework

The FCMA was passed on 6th May 2016, and is established under Article 69 of the Constitution of Kenya, which specifies the duty of the State and the citizens in the sustainable management of natural resources (which include forests[7]).

The FCMA repealed the Forests Act of 2005. The enactment of the FCMA has certain implications for REDD+. As far as statutes for hosting the regulatory framework for REDD+, Kenya seems to have taken the alternative of finding REDD+ related provisions in a plethora of laws such as the Climate Change Act, the FCMA, the related laws on Land[8], energy,[9] agriculture,[10] among others. However, the protection of trees as a central component for REDD+ must stream from the interstices of the main legislation on forests, which in our case is the FCMA. This is in light of the fact that the pressure to clear forests in Kenya is as a result of increased populations, need for agricultural land, energy demands, and the need for grazing land among others.[11] The FCMA is further an ideal place for the discourse on REDD+ since it

[5] See for instance the inception workshop report, for the Stakeholder forum held on 17th February 2015, at Sarova Panafric Hotel, Nairobi.
[6] The other laws include: The Climate Change Act, 2016, The Community Land Act, The Natural Resources (Benefit Sharing) Bill among others.
[7] Article 26, Constitution of Kenya, which defines natural resources to include forests.
[8] Land Registration Act; Land Act, 2012; The National Land Commission Ac 2012t; Community Land Act, 2016; *inter alia.*
[9] The Energy Act, 2006.
[10] Agriculture Act, 2012; the Land Control Act, 2010.
[11] Walubengo, D. and Kinyanjui, M. 2010. Investing in Locally Controlled Forestry. Kenya Background Paper.

assigns responsibilities, rights and creates offences among others, all of which are geared towards the protection of forests.

The FCMA is therefore highly useful in the implementation of REDD+ in a number of ways. Firstly, the Act makes it explicit in its preamble that it is a law that is geared towards the sustainable management of forests, a key aspect of REDD+. The Cabinet Secretary (CS) is also charged with the role of establishing a strategy for the sustainable management of forests. This is a good place to anchor further specifics of REDD+ in the course of time.

In a wise fashion, the FCMA does not contain provisions that regulate the operationalisation of REDD+, but it does create an enabling environment for REDD+. For example, all activities under the Act must be guided by the provisions of Article 10 of the Constitution, which include good governance, accountability, public participation, sustainable utilization of resources among others. The Act creates a provision for the CS of the National Treasury to propose tax and other physical incentives geared towards promoting forest conservation and management, and to prevent forest degradation[12]. The Act also creates a possibility for more detailed rules on incentives to encourage conservation stewardship.[13]

On the whole, it can be said that the FCMA is generally a good law as far as the forest related law for REDD+ in Kenya is concerned. While it is not as water-tight as the anchor provision for REDD+ interventions, read alongside the Climate Change Act and other related laws in good faith, and accompanied by effective and strategic subsidiary laws, it may provide a good basis for future implementation of REDD+.

Limitations and opportunities for REDD+ in the FCMA

Despite the fact that the FCMA can be supplemented by other laws, it is important to note that it is limited in some aspects. While the FCMA in its preamble is clear concerning the conservation and sustainable management of forests, it is shy to mention directly the role of forests in forest based emission reduction. Such a mention would have been useful, as in other countries[14], to directly assign the FCMA roles, duties and responsibilities that are directly linked to climate change. In the absence of such a phrasal recognition of the role of trees in carbon sequestration, and in light of the fact that a number of countries[15] have still been

[12] Section 54(1) FCMA.
[13] Section 71(2) a FCMA.
[14] Article 1 Forest Law of China, 1998; Article 1 France's *loi d'orientations sur la foret, 2001* ; *Ley Forestal,* 1996 in Guatemala ; *Ley General de Desarrollo Forestal Sustenable*, 2003 in Mexico all mention directly forests and their role in carbon fixation in the pursuit of climate change.
[15] See for instance the United States of America which focuses more on 'policy than legislative change.

successful without such specific mention of REDD+ in the Forests Law, it is important to consider what would be specifically conducive in light of Kenya's social and legal realities. The FCMA should also have at least averred to the role of the Act in emission reduction in some way or the other. For instance, one of the sections assigning responsibility could have stated that the roles of the bodies in the Act also include developing strategies, guidelines or subsidiary laws relating to forest related emission reduction.

One other glaring issues in this law, is its failure to seize the opportunity to clarify tree and carbon tenure to the extent possible in a statute. The value of such a clarification is to create a certain degree of certainty of who has the right to benefits for making REDD+ interventions.

Statutory and Conventional disharmony is one of the challenges that the implementation of REDD+ in Kenya will have to deal with. For instance, various laws (relating to forestry, climate change related, environmental, land etc) assign tasks to various agencies which may indirectly touch on REDD+. The duplication of roles, if not addressed, will spawn into other challenges such as the absence of assignable responsibility and accountability among others. With regard to international standards, whatever alternatives that Kenya takes up, must be in line with the standards set up at the international level.[16]

Monitoring, reporting and verification are one of the core aspects of climate action, and REDD+ is no exception. The text of the FCMA does not set up such monitoring institutions directly. However, the Climate Change Act contains some guidelines which must be born in mind in the activities to be conducted. This is also a good place to consider guidelines that are dedicated specifically to accounting for REDD+ (for instance the National Forests Monitoring Systems, NFMS), in the course of coming up with forest related emission reduction monitoring structures. While there are practical steps that have been discussed in various sectors it is important that the related roles and responsibilities be given legislative authority to the extent possible.

Recommendations

The future of the REDD+ regulatory framework must be alive to the Kenyan social and political realities. Kenya's context is one of economic survival and social sustenance. A lot of times, growing populations and other realities push communities and individuals to seek income from land as opposed to becoming stewards of environmental protection. While this is not an ideal reality, any carbon sequestration attempts must consider incentives that will make people opt

[16] See for instance Articles 5 of the Kyoto Protocol regarding with respect to Standards of reporting.

for what appears to be a beneficial alternative. The FCMA commendably creates room to enact subsidiary laws on incentives.[17] However there is a need to ensure specificity in order to avoid the attendant land related risks when it comes to rights and entitlements in the implementation of REDD+. Anything less than security of tenure for REDD+ interventions would politicize climate change initiatives and challenge the process to a halt.

In shaping the regulatory framework, it is important to consider the alternatives that have been adopted by other countries, Kenya's vast climate change policy framework,[18] and the realities that surround our legislative processes. The REDD+ process is also an evolving and living climate change initiative and creating too specific enactments under law may cause a hindrance on the much needed future flexibility. The future of REDD+ implementation as far as regulatory frameworks are concerned may lie in programmes and projects that have a reasonable link to law and policy, in that the law is not directly prescriptive but it is at least enabling. In light of the devolved nature of the government, it is also relevant to consider the capacities of the various counties in setting up their own GHG registries for forest based emission reductions in addition to or alongside the general GHG emissions reductions. Each of these county based efforts should not only be cognizant of the national laws and the Constitution, but should ensure statutory and treaty harmony as far as other laws are concerned.It is also important to appreciate that a convenient alternative as far as REDD+ legislation is concerned, is the wise and explorative reliance of the existing legislation, as opposed to waiting for a new law to create an all encompassing legislative framework in light of the fact that the FCMA has already been passed. These interests can be captured in a policy structure such as a REDD+ strategy and future subsidiary laws. Further, the private sector as a player in climate change must not be ignored and the law must move every step with the consideration of the private sector and their potential in the marketization of forests centered emission reduction efforts. There is a need to ensure that that as far as forests are concerned, this opportunity is availed and encouraged within the Kenyan regulatory framework. For instance, in light of the sensitive nature of taxation in Kenya, there is need to give clear guidelines on how provisions on tax incentives are going to take place. An example of where such has worked well is the Dominican Republic where tax rebates of over 70% are given for putting up tree plantations.

Another aspect that a future strategy should address is who the beneficiaries will be for REDD+. While the position in Kenyan law is clear that tenure of forests is either public, private

[17] See Section 71(2) a of the FCMA.
[18] National Climate Change Action Plan, Climate Change Policy, National Climate Change Response Strategy, *inter alia.*

or communal (similar to the three possible land tenure regimes),[19] it is not clear whether payments for sequestering carbon in forests on public land will go to government or whether they will be shared since the government only holds the public forests in trust for the Kenyan people. When it comes to private holdings (by the community and individuals), it is not clear whether there is a State claim to the benefits derived from carbon sequestration in light of the fact that Carbon is listed as a mineral under the Mining Act, 2016.[20] Despite the fact that the payments are based on carbon emission reduction, it is important for clarity to be made on whether State control is invoked by the nature of the substance being reduced, i.e. carbon.

There is also the need to ensure guidelines are enacted to address the issue of property rights. For instance, when it comes to marketization of emissions reductions, it is observable that Kenya's land law regime may pose a challenge in light of the prevalent statutory disharmony. For instance, if a carbon sequestration right (still undefined under Kenyan Law), is to exist, there is need to clarify the registration regime that would be provided for it. There is also need to ascertain whether the right will move together with the land, as in a bundled system of rights, or whether it can be a separate registrable interest as is in the case of Australia. The consequence of this clarification is that it will create certainty for making a cost benefit analysis for those who want to use their privately (and communally) held land for REDD+ initiatives.

[19] Article 61, Constitution of Kenya.
[20] See Schedule 1, Mining Act, 2016 which, among others, lists Carbon Dioxide as part gaseous minerals.

COUNTRY REPORT: NIGERIA

the Regulation of Genetically Modified Organisms in Nigeria: An overview of the National Biosafety Management Agency Act, 2015

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Introduction

The Convention on Biological Diversity (CBD) recognises that there are diversities in plant and animals' species which when utilised through appropriate technologies will result in benefits to present and future generations of humans.[1] The CBD was finalised in Nairobi in May 1992 and opened for signature at the United Nations Conference on the Environment and Development (UNCED) in Rio de Janeiro on 5 June 1992.[2]

The main issues addressed by the CBD are conservation of biological diversity, the sustainable use of natural resources and the fair and equitable sharing of benefits deriving from the use of genetic resources.[3] The Convention also addresses Biosafety and the safe use of Genetically Modified Organisms. The subject of Living Modified Organisms (LMO) is the concern of the Cartagena Protocol on Biosafety[4] A distinction was drawn in the Protocol between an LMO and a Living Organism (LO). An LO is any biological entity capable of transferring or replicating genetic material, including sterile organisms, viruses and viroid's (Art 3 (h)). An LMO is "any living organism that possesses a novel combination of genetic material obtained through the use of modern biotechnology" (Art 3 (g)).

The Cartagena Protocol on Biosafety addresses the effects of the application of genetically modified organisms on human health and the environment in such a way as to guarantee safety of life and property. While it is not in doubt that advancements in technology have made it possible for the mass production of foodstuffs and livestock to keep pace with the ever-increasing human population, the introduction of GMOs has brought in its wake concerns about the deleterious effects of foods produced through genetic manipulation. In this light, the

[1] See the preamble to the Convention on Biological Diversity, 1992.
[2] The CBD entered into force on 29 December 1993.
[3] See the preamble to the CBD Convention.
[4] The Cartagena Protocol on Biosafety to the CBD is an international treaty governing the movements of Living Modified Organisms (LMO) resulting from modern biotechnology from one country to another. It was adopted on 29 January 2000 as a supplementary agreement to the CBD and entered into force on 11 September 2003.

international community deliberated and adopted the Cartagena Protocol on Biosafety as discussed above.

This country report therefore examines National Biosafety Management Act, 2015, enacted by the National Assembly (Parliament) to regulate the use of the GMOs within Nigeria. Nigeria is a signatory to the Convention on Biological Diversity and also ratified the Cartagena Protocol on Biosafety to the CBD,[5] although Nigeria is yet to ratify the Nagoya Protocol to the CBD on Access and Benefit sharing.

The National Biosafety Management Agency Act 2015[6]

The Act established an Agency under section 1 and it clearly states as follows:
There is established the National Biosafety Management Agency (in this paper referred to as the Agency) which shall ensure the effective management of all components of the Nation's biosafety. Biosafety has been defined in the Act as:

"the application of measures, policies, knowledge, techniques, equipment and procedures for minimizing potential risks that modern biotechnology may pose to the environment and human health." [7]

To achieve the aims and objectives of the Act, there is a reliance on the principles of international customary law contained in the Convention on Biological Diversity, in particular the precautionary principle. The precautionary principle has been adopted into Nigerian law through the formulation of the National Policy on the Environment which states that "where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing cost- effective measures to prevent environmental degradation." [8]

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[5] The Cartagena Protocol to the Convention on Biological Diversity was signed by Nigeria on 24/05/2000 and ratified on 15/07/2003. See status of countries and their ratification at https://www.cbd.int/information/parties.shtml#tab=0 . Nigeria is not a party to the Nagoya Protocol on Access and Benefit sharing.

[6] See the text of the Act at http://nbma.gov.ng/wp-content/uploads/2015/11/national_biosafety_management_agency__act_2015.pdf accessed on 15 November, 2015.

[7] See s 43 of the Act.

[8] For a further discussion on the application of the precautionary principle under Nigerian law, see paragraph 1.0 of the National Policy on the Environment (NPE), a policy document on the environment prepared by the Ministry of Housing and Environment in 1989 and then revised in 1999, available at http://www.nesrea.org/documents accessed 26-3- 2016. See also T. Ogboru: NESREA and NCC regulations on Telecommunications Masts: Implementing the precautionary principle *Afe Babalola University: Journal of Sustainable Development and Policy* (2015) Vol. 5: 43.

The principle had its origin in the West German environmental law notion of the *Vorsongeprinzip,* the principle of foresight.[9] It is also enunciated in Principle 15 of the Rio Declaration[10] which states:

> *In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of a serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.*

The precautionary principle provides guidance in the development and application of environmental law where there is scientific uncertainty. Under the National Policy on the Environment, this principle is recognised.[11] The principle assumes that natural systems are vulnerable rather than disposable.[12] It prefers prevention to remediation, focuses on the relevance of scientific data to developmental decision-making and carries an obligation to take precautionary measures in proportion to potential damage.[13] It is akin to the concept of reasonable foreseeability of harm in the law of tort, and is preventive in nature.[14] The principle has been accepted into many international treaties. Article 3 of the United Nations Framework Convention on Climate Change[15] provides:

> *The parties should take precautionary measures to anticipate, prevent or minimise the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific uncertainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost.*

In the same vein, section 4(3) (f) of the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement of Hazardous Wastes within Africa,[16] requires that each party shall strive to adopt and implement the preventive, precautionary approach to pollution problems which entails inter alia, preventing the release into the environment of substances which may cause harm to humans or the environment without waiting for scientific proof regarding such harm. The Parties shall co-operate with each other in taking appropriate measures to implement the precautionary principle to pollution prevention through application of Clean Production methods, rather than the pursuit of a permissible emissions approach based on assimilative capacity assumption.

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[9] J Glazewski Environmental *Law in South Africa* (2005) 2nd edition, 18.
[10] See the Rio Declaration on the Earth 1992, UNCED Doc A/Conf/151/4.
[11] See below.
[12]Amokaye, O, *Environmental Law & Practice in Nigeria*, (2004), Unilag Press, Lagos. 97.
[13] ibid.
[14]Id.
[15]31 I.L.M 849 (1992).
[16]30 I.L.M (1991), henceforth Bamako Convention. See also Art 3(1) to the 1996 Protocol to the London Convention. Nigeria has ratified the Bamako Convention.

Translating the principle into action can have far-reaching effects. It involves taking preventive action and willingness to take action in advance of scientific proof or evidence of the need for action. A comprehensive application of this principle at municipal level will require a national government to take decisions and measures to curtail activities that may likely have an adverse impact on the environment. It will also require activities and substances which may be harmful to the environment to be regulated, even if no conclusive or overwhelming evidence is available as to the harm they may cause to the environment.[17]

Policies aimed at preventing pollution such as waste minimisation through design changes, input substitutions and other Clean Production methods should be encouraged.[18] The National Biosafety Management Act incorporates the precautionary principle in its objectives.

An overview of the Act

The National Biosafety Management Act[19] is divided into ten parts containing about 44 sections. Part 1 deals with the provisions establishing the National Biosafety Management Agency (NBMA) which is the regulatory body set up to administer the provisions of the Act. The major reason for establishing the Agency is to ensure that modern biotechnology when applied in Nigeria does not produce harmful effects to human health and the environment. The functions to be carried out by the Agency shall include the following:

> (a) establish and strengthen the institutional arrangement on Biosafety matters in Nigeria;
>
> (b) safeguard human health, biodiversity and the environment from any potential, adverse effect of genetically modified organism including food safety;
>
> (c) ensure safety in the use of modern biotechnology and provide holistic approach to the regulation of genetically modified organisms;
>
> (d) provide measures for the case by case assessment of genetically modified organisms and management of risk in order to ensure safety in the use of genetically modified organisms to human health and the environment;
>
> (e) provide measures for effective public participation, public awareness and access to information in the use and application of modern biotechnology and genetically modified organisms; and

[17] Amokaye, op cit 99.
[18] ibid.
[19] No 15 of 2015.

(f) ensure that the use of the genetically modified organisms does not have adverse impacts on socio-economic and cultural interests either at the community or national level.[20]

The NBMA has the mandate to manage biosafety matters in Nigeria. It is therefore charged with the responsibility of providing a regulatory framework for safety measures in the application of modern biotechnology processes in Nigeria with a view to preventing adverse effects on human health, animals, plants and environment.

According to the information provided by the Director-General of the Agency, the benefits or expected outcomes of the NBMA to Nigeria are the following:

(i) Minimising and eliminating risks to human health in the use of GMOs.

(ii) {The} protection against any adverse effect of Genetically Modified Organisms (GMOs) on Biological Diversity and the environment.

(iii) Ensuring that decisions that would guard against any adverse socio economic consequences of the use of GMOs are taken promptly;

(iv) Ensuring that there is a safe adoption of modern biotechnology and utilisation of its potential benefits for economic growth, improved agriculture, job and wealth creation, industry growth and sustainable development under a legal framework; and

(v) Confirmation of the potential and harnessing of the potentials of safe biotechnology practice.[21]

Reaffirming Nigeria's commitment to the Convention on Biological Diversity and the Cartagena Protocol on Biosafety, it is necessary and imperative that an enabling legal environment be provided to translate the objectives and commitment made under the Agreements into effects. In line with the Nigerian practice of transposing all international conventions before they can have the force of law in Nigeria, the Act was therefore enacted. Some of the important provisions of the Act are examined below.

Granting of request or authorisation

Under section 24(1) of the Act, no person, institution or body shall import, export, transit or commercialise any GMO or product intended for direct use as food, or for processing unless by the approval of the Agency. An application may only be granted upon completion of safety

[20] See s 2 of the Act.

[21] See the detailed information on the benefits of the Agency as provided by Dr. Rufus Ebegba, DG/CEO of the National Biosafety Management Agency Act available at www.nbma.gov.ng/?page_id=425 last visited 12/12/16.

risk assessment to determine if there is not substantial risk that the GMO could be eaten by humans or animals.[22] The application shall ensure that if the GMO is for commercial release, the application process addresses the socio-economic considerations set out in the third schedule to this Act.[23] The Agency shall consider such analysis in the risk or benefit assessment to determine whether it is to be approved or denied.[24]

The above are administrative procedures necessary for the grant of a licence or authorisation. The conditions are enforced by administrators as part of the day-to-day regulation of environmental affairs. Permits, licences, directives and abatement notices are commonly used as part of command-and-control mechanisms, to regulate and control environmental affairs, including fauna and flora, protected areas, water use, waste management, pollution and marine resources.[25] Under the Act, the food safety assessment and the determination that the food is safe for human consumption shall be certified by another Agency the National Agency for Food, Drug Administration and Control (NAFDAC). It is however not clear from the Act at what stage this application shall be forwarded to NAFDAC for certification, whether at the beginning of the process or when the application for licence has been approved. This is a clear omission in the Act.

When conditions stipulated in a licence or permit are not complied with, sanctions such as rejection or stipulations of further conditions for compliance may be imposed for an administrator of the Agency and the Administrator has a duty to monitor compliance and enforcement of these sanctions. [26] However, in this case, the application process deals with determining whether a GMO process has been approved for industrial production and it is submitted that the NAFDAC Agency ought not to be involved at this stage. It is when the food or drug that is being processed for GMO input has been approved for production is forwarded to NAFDAC for presentation to the public that NAFDAC certification is required. There should also be a mandatory requirement that the chemical composition of the GMO should be clearly stated in the packaging and the process used, whether organic or inorganic.[27]

Section 25 (1) of the Act prescribes a period of 21 days of displaying information to the public in at least two (2) national newspapers and one local newspaper for possible inputs or

[22] S 24(2)
[23] S 24(3)
[24] S24(4)
[25] See E Bray Administrative Justice in A Paterson & L Kotze (eds.) Environmental Compliance and Enforcement in South Africa Legal Perspectives, Juta (2009) 152.
[26] Id.
[27] See s 23 (2) (h) of the Act.

objections to the application. Public hearings are to be held for consultation or further comments or inputs that will assist in the review of processing of the application.[28] The NBMA Agency shall not disclose any confidential business information to the public.[29]

Lack of provision protecting whistle-blowers

In the case of importation into Nigeria of GMO, an import permit must be obtained from the Agency at least 270 days before such an importation is embarked upon.[30] Such application shall include the following:

(a) the information and data requirement that may be specified by the Agency in the regulations, guidelines and policy documents;

(b) A risk assessment report indicating the potential risk, if any that the genetically modified organism (GMO) may pose to human health including food safety,
biological diversity or the environment including the consequences of unintentional releases.

(c) the nature and identity the GMO involved in the activity being proposed to be carried out.

(d) information relating to any release of the GMO in Nigeria or elsewhere;

(e) the nature and storage of the activities including such activities as storage, transportation, production and processing;

(f) destruction, disposal or usage of the GMO in any way whatsoever;

(g) management plans for remediation measures to be undertaken in the event of:

(i) any unintentional introduction into the environment of the GMO from contained laboratory;

(ii) the escape or persistence in the environment of a GMO from a confined field trial;

(iii) any unintended consequence to the environment of the placing of the GMO in the market.

Offences, penalties and enforcement

Part 1X of the Act contains provisions for offences against the Act. Any person, institution or body who:

(a) imports, exports, transits or otherwise any GMO without prior approval or permit of the Agency or

[28] S 26(1)
[29] S 26(2)
[30] S 23(1)

(b) contravenes the conditions for the grant of an approval or permit under this Act, commits an offence and shall be liable on conviction for;
(i) in case of an individual, to a fine of not less than N2, 500,000 (about $ 8, 196.72) or a term of imprisonment of not less than five years or both such fine and imprisonment.[31]
(ii) in the case of a corporate body the fine shall be N5, 000, 000 (about $16, 393.44) and in addition the directors shall be fined personally the sum of N2, 500, 000 or both fine and imprisonment.

The same punishment is prescribed for an individual or institution or body that supplies false information or suppresses any new information which arises after the application was filed or refused in respect of a GMO permit which when released has adverse effect on human health, animal, plant or the environment. As laudable as these provisions are there is no protection given to a whistle-blower under the Act. [32] The consequence of this is that for a serious infraction of the nation's bio-security, no protection is afforded anyone who cares to alert the authorities of such an impending infraction. In such a case the implication is that no such information will be offered. An amendment to the Act is recommended in this regard.[33]

The Federal High Court has jurisdiction to try offences under the Act but the Act is silent on whether the state High Courts shall have jurisdiction to try offences that fall within the territorial jurisdiction of a state. It is submitted that both the federal and state High courts should have jurisdictions since 'environment' is neither under the Exclusive List nor under the Concurrent List in the distribution of the subject matters that are covered in a federation. The residual list contains matters that are neither under the Exclusive list nor the Concurrent List and only the state legislature has power to legislate on such matters. To place matters involving the health of the citizens of the state under the jurisdiction of only the Federal High Courts will unduly burden the courts and may not result in a speedy dispensation of justice.

Conclusion

This country note examines the provisions of the National Biosafety Management Act of Nigeria which has as its objectives the regulation of GMOs and their application in Nigeria. The Act is a laudable one and its provisions are expected to deepen the process of application

[31] S 35 1(a) (i)
[32] A whistleblower is an employee who reports employer wrongdoing to a government or law enforcement agency. In the United States of America, Federal and state laws protect whistle-blowers from employer retaliation. See further Whistleblower Protection Act (5 USCA § 660).
[33] There is no Whistleblower Act in force in Nigeria but a draft bill on Whistleblower policy is currently under consideration at the Nigerian National Assembly (Parliament).

of GMO and its technology in Nigeria. However, some observed shortcomings to the Act have been highlighted and if remedied, will make the Act to fulfil its noble objectives of regulating and safeguarding the use of GMOs in Nigeria.

COUNTRY REPORT: NEW ZEALAND

King Salmon in the High Court again: Further development of Sustainable Management jurisprudence

Trevor Daya-Winterbottom*

Introduction

This Country Report focuses on the developing jurisprudence regarding the meaning and effect of sustainable management in New Zealand environmental law in light of the recent High Court decision in *RJ Davidson Family Trust v Marlborough District Council*.[1] The decision is important because it applies the ecological approach to sustainable management[2] developed by the Supreme Court in *Environmental Defence Society Inc v The New Zealand King Salmon Company Ltd*[3] in the context of a resource consent application.

The factual background to *Davidson* is as follows. The Davidson Family Trust applied for resource consent to establish and operate a 7.372ha mussel farm at Beatrix Bay in the Marlborough Sounds, where 37 other marine farms (occupying 304.4ha of marine space in the territorial sea) had already been expressly allowed under the *Resource Management Act 1991* (RMA).[4] The local authority, and the Environment Court on appeal, refused to grant resource consent for the proposed activity due to the likely adverse effects on the population and habitat of the New Zealand King Shag (*Leucocarbo carunculatus*).[5] The subject site for the proposed activity is located within an area of significant ecological value for King Shag identified in the Marlborough Sounds Resource Management Plan 2003 (MSRMP), and the overall objective of the plan is to "maintain population numbers and distribution of species".[6] King Shag is the "only endemic bird species in the Marlborough Sounds",[7] and is identified as "a Nationally Endangered species in the *New Zealand Threat Classification System* published

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[1] [2017] NZHC 52.

[2] Section 2(1) of the *Resource Management Act 1991* (RMA) defines "sustainable management" as enabling people and communities to provide for their own economic, social and cultural well-being while providing for inter-generational equity, safeguarding the "life-supporting capacity" of environmental media, and addressing adverse environmental effects.

[3] [2014] NZSC 38; 5 *IUCNAEL EJournal* 303.

[4] [2017] NZHC 52 at [1]

[5] [2017] NZHC 52 at [5].

[6] MSRMP, Section 4.4; [2017] NZHC 52 at [32].

[7] www.nzbirdsonline.org.nz/species/new-zealand-king-shag accessed 9 April 2017.

by the Department of Conservation" and is identified as vulnerable in the Red List published by the International Union for the Conservation of Nature (IUCN).[8] Previously, in *Sustain Our Sounds Inc v The New Zealand King Salmon Company Ltd*,[9] determined by the Supreme Court at the same time as the *King Salmon* decision, the Court found that a "precautionary approach" was merited "given the threatened status and limited geographic range of the King Shag". The key issue in *Davidson* was whether an additional marine farm could be sustained in this location.[10]

Because the proposed marine farm extended beyond 200m from the shore, the MSRMP categorised the activity as a non-complying activity, and the local authority was required to be satisfied that one of the "gateway" tests in the RMA would be satisfied as a pre-condition for the grant of any consent – i.e. that the adverse environmental effects of the proposed activity would be minor, or that the proposed activity would not be contrary to the objectives and policies in the relevant plan.[11] The Environment Court found that the proposed activity (cumulatively with existing farms in Beatrix Bay) was likely to give rise to adverse effects on the King Shag foraging habitat that would be "more than minor but less than significant" and that it was "very unlikely but possible" that King Shag could "become extinct as a result of this application".[12] But as a result of remaining concerns about the accuracy of its predictions regarding potential (future) effects the Court exercised its discretion to refuse consent.[13]

The Trust advanced four grounds of appeal in the High Court, namely, that the Environment Court had erred in law: (1) by applying *King Salmon* when deciding a resource consent application; (2) by applying an inappropriate burden and standard of proof; (3) by finding that the proposed activity could contribute to extinction of the King Shag; and (4) by finding that areas of significant ecological value defined in the MSRMP could not be challenged. These matters will be examined below.

The ecological approach in *King Salmon*

Similar to environmental planning in other jurisdictions, the RMA provides for a hierarchy of statutory planning documents to be promulgated to guide decision-making regarding consent applications made in relation to proposed activities or projects. For example, in relation to the coastal environment the RMA provides for the New Zealand Coastal Policy Statement

[8] [2017] NZHC 52 at [48].
[9] [2014] 1 NZLR 673 at [139]; [2017] NZHC 52 at [51].
[10] [2017] NZHC 52 at [11].
[11] RMA, s104D.
[12] [2017] NZHC 52 at [39].
[13] RMA, s104(6); [2017] NZHC 52 [43].

(NZCPS) to be prepared by the Minister of Conservation,[14] and for regional coastal plans to be prepared by the relevant local authority.[15] When deciding resource consent applications the relevant local authority is required to have regard to (inter alia) any relevant provisions of the NZCPS and the regional coastal plan.[16]

In *King Salmon* the Supreme Court was asked to determine whether the NZCPS contained policies that must be complied with regarding a proposed plan change to the MSRMP, the relevant regional coastal plan applying to activities in the territorial sea contiguous with the Marlborough district coastline.[17] The Court found that statutory planning documents are designed to give practical effect to sustainable management in an increasingly more detailed and specific way to inform subsequent resource consent decision-making, and that they may contain provisions that are quite specific and not open-textured (e.g. a policy or rule requiring adverse environmental effects to be avoided) that should not be subject to a "balanced judgment" reinterpretation that allows other considerations to be given greater weight.[18] As a result, the Court declined to allow an additional area of the territorial sea to be zoned for marine farming activities.[19]

Subsequent commentary regarding the impact of the *King Salmon* decision (which departed from the previously universal application of the "balanced judgment" approach)[20] has diverged between authors who consider that *King Salmon* has put in place an ecological approach to all decision-making under the RMA,[21] and other authors who suggest that the decision only applies to cases regarding the NZCPS or more widely that it may only apply to cases regarding plan changes.[22]

Does *King Salmon* apply to resource consent applications?

The High Court decision in *Davidson* provides a preliminary answer to this unresolved question. In responding to the appeal grounds, the High Court noted that the Supreme Court in *King Salmon* had considered the "elaborate process" under the RMA for preparing policy

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[14] RMA, s57.
[15] RMA, s64.
[16] RMA, s104(1)(b)(iv) and (vi).
[17] RMA, s67(3)(b); 5 *IUCNAEL EJournal*, 303 at 307.
[18] [2014] 1 NZLR 593 at [151].
[19] [2014] 1 NZLR 593 at [153].
[20] *North Shore City Council v Auckland Regional Council* [1997] NZRMA 59; *Watercare Services Ltd Minhinnick* [1998] 1 NZLR 294; 5 *IUCNAEL EJournal*, 305-306.
[21] Environmental Defence Society "EDS secures victory for New Zealand's outstanding coasts" (press release, 17 April 2014).
[22] Martin Williams "Supreme Court's decision in Environmental Defence Society v King Salmon" (9 June 2014) Resource Management Law Association <www.rmla.org.nz>; Derek Nolan (ed) *Environmental and Resource Management Law* (5th edn LexisNexis Wellington 2015), 1095.

statements and plans in order to achieve sustainable management, and had as result concluded that it was "implausible" that the purpose and principles in pt2 of the RMA could be used retrospectively to trump statutory planning documents expressly designed to implement sustainable management unless there was "invalidity, incomplete coverage or uncertainty of meaning" in the relevent planning document.[23] In particular, the High Court drew attention to the Supreme Court's finding that:[24]

> The RMA envisages the formulation and promulgation of a cascade of planning documents, each intended, ultimately, to give effect to s5, and to pt2 more generally. These documents form an integral part of the legislative framework of the RMA and give substance to its purpose by identifying objectives, policies, methods and rules with increasing particularity both as to substantive content and locality.

The High Court also observed that the Supreme Court in reaching this conclusion had noted that s5 of the RMA "should not be treated as the primary operative decision-making provision", which reflected "the open textured nature" of pt2 and the need to "flesh out the principles in s5" in an "increasingly detailed" way via the statutory planning documents promulgated under the RMA.[25] Based on this reasoning, the High Court held that *King Salmon* is applicable in the context of deciding resource consent applications under s104 of the RMA in the absence of any invalidity, incomplete coverage or uncertainty being found in the relevant statutory planning documents. Otherwise, planning documents could be "rendered ineffective".[26]

For completeness, the High Court went on to examine the Trust's subsidiary argument that by applying *King Salmon* when deciding its resource consent application, the Environment Court had failed to have regard to the provisions in s5(2) and s7(b) on the RMA that focus on (respectively) "enabling" people and communities to provide for their economic and social well-being, and the "efficient use and development of natural and physical resources". However, the Court found that the Environment Court had taken into account the "financial and employment" benefits of the proposed activity, but observed that the narrow focus on these components in pt2 of the RMA ignored other features – such as, the requirements to have regard to protecting the habitat of indigenous fauna and the intrinsic value of ecosystems in s6(c) and s7(d). Beyond that, the Court noted that the Trust had not raised any issue regarding the validity, coverage or certainty of the relevant planning documents. Accordingly, the Court found no error in how the Environment Court had applied *King Salmon*.

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[23] [2017] NZHC 52 at [69] and [76]; [2014] 1 NZLR 593 at [86] and [88].
[24] [2014] 1 NZLR 593 at [30].
[25] [2017] NZHC 52 at [74]; [2014] 1 NZLR 593 at [130].
[26] [2017] NZHC 52 at [76] and [77].

Notwithstanding this firm opinion, the High Court failed to grapple with an argument put forward by the Trust that *King Salmon* should not be applied to resource consent decisions due to the difference in the statutory wording in s67(3)(b) which requires that the relevant regional plan (e.g. the MSRMP) must "give effect" to the NZCPS (considered by the Supreme Court in relation to a plan change), and the wording in s104(1)(b) which merely requires local authorities to "have regard to" the NZCPS and the MSRMP when deciding resource consent applications. However, when reading the RMA more widely it is for note that the function of all relevant statutory planning documents is to "achieve" the statutory purpose of the RMA (i.e. sustainable management)[27] – which Roget's Thesaurus defines as meaning (inter alia) "pull off, bring about, accomplish, carry through, fulfil". Substantially, similar meanings are given to "implement". As a result, it is unlikely that anything turns on this omission.

Onus and standard of proof and species extinction

The central issue before the Environment Court was the potential effect of the proposed activity on the "foraging habitat" of the King Shag. The Trust called no evidence on this matter, but instead challenged the basis for including the areas of significant ecological value in the MSRMP and whether there was any evidence that the cumulative effects of marine farming on habitat had reached a "tipping point".[28]

The High Court found that the Trust had not been placed under any additional burden of proof regarding this issue, but observed that a resource consent applicant who "elects" not to call evidence on any issue "runs the risk of having its application declined, if the information is inadequate".[29] Turning to the standard of proof, the Environment Court when predicting potential (future) effects had relied on the judgment of Lord Diplock in *Fernandez v Government of Singapore* that:[30]

> There is no general rule of English law that when a Court is required, either by statute or common law, to take account of what may happen in the future and to base legal consequences on the likelihood of its happening, it must ignore any possibility of something happening merely because the odds on it happening are fractionally less than evens.

However, the Trust contended on further appeal that any future effects should have been assessed on the balance of probabilites. To resolve this matter the High Court surveyed a range of Australian, Canadian, New Zealand and English authorities regarding accident compensation and loss of chance, and found that there is no departure from the civil standard of proof when deciding "awkward" cases regarding future effects because "… the court must

[27] RMA, s56 and s63(2).
[28] [2017] NZHC 52 at [96].
[29] RMA, s104(6); [2017] NZHC 52 at [103].
[30] [1971] 2 All ER 691 (HL) at 696; [2017] NZHC 52 at [107].

be satisfied of any relevant fact on the balance of probabilities … and then "evaluate" the risk."[31]

The Court then returned to the statutory requirement under s104(1) of the RMA to have regard to any actual or potential effects on the environent when deciding resource consent applications. It noted, in relation to non-complying activities, the decision in *Discount Brands Ltd v Westfield (New Zealand) Ltd*, where the Supreme Court found that a local authority:[32]

> … had to have sufficiently comprehensive information to satisfy itself that the activity would not have any adverse effect on the environment which was more than minor and it would not have any adverse effect, unless it was de minimis or a remote possibility.

In relation to potential effects, the High Court in *Davidson* observed that:[33]

> The word "potential" denotes something other than proof, and cannot be assessed on the balance of probabilities. Instead, it was appropriate to assess risks that carry less than a 50 per cent chance of eventuating. In particular, the risk of species extinction is much less than 50 per cent and it cannot be proved that extinction is more likely than not to occur. Instead, it is appropriate to assess existing facts on the balance of probabilities, and to consider whether any particular evidence is proved to that standard. The assessment of potential effects then depends on an evaluation of all of the evidence but does not depend on proving that potential effect will more likely occur than not.

The Court found that the Environment Court had followed this approach when determining that the cumulative effect of existing marine farms in Beatrix Bay could give rise to species extinction, that this effect was significant and would be exacerbated by the proposed activity, and that it was not de minimis or a remote possibility. Accordingly, there was no error by the Environment Court in reaching this conclusion.

Challenge to the area of significant ecological value

The final question for the High Court to resolve was whether the Trust could retrospectively challenge the area of significant ecological value in relation to the King Shag habitat noted in the MSRMP. Here the Court found that "there was no evidential base adduced by the Trust to show that the AOEV was inaccurate" and this ground of appeal failed.[34] This contrasts starkly with the approach in previous cases. For example, in *Unison Networks Ltd v Hastings District Council*,[35] the High Court in relation to a wind farm appeal found that the Environment Court was entitled to reopen the question about whether a particular landscape was outstanding and that it was not required to subordinate its reasoning to the relevant district plan provisions.

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[31] [2017] NZHC 52 at [125].
[32] [2005] NZSC 17; [2017] NZHC 52 at [128].
[33] [2017] NZHC 52 at [129].
[34] [2017] NZHC 52 at [154].
[35] [2011] NZRMA 394.

Commentary

The balanced judgment approach to sustainable management articulated previously in *North Shore* and *Minhinnick* is problematic because it leaves primary decision-makers with considerable discretion as to the relative weight that should be given to different conflicting considerations in the decision-making process. This led Grinlinton to observe that effectively this approach is "neutral".[36] The decision in *Unison Networks* illustrates the weakness in this approach as it provides decision-makers with an opportunity to reopen policy debates already settled by operative provisions in statutory planning documents, whereas the *King Salmon* approach restricts considerably the oppportunity to subsequently undermine such provisions.

Extending the *King Salmon* doctrine into the realm of resource consent decisions has considerable logic. It ensures that statutory planning documents provide guidance and inform decisions to grant or refuse resource consent for proposed activities. It should also focus the minds of decision-makers more sharply when preparing policy statements and plans regarding the significance of any resource management issues that need to be addressed and the anticipated environmental outcomes to be delivered by these documents in response to such issues. For example, it should encourage policy-makers to confront the options considered by the Environment Court in *Fountainblue Ltd v Mackenzie District Council*,[37] where the Court found that prima facie inappropriate development should be avoided but noted that beneficial development would be precluded unless the objective in the proposed plan provided for any adverse visual effects on outstanding landscapes to be "avoided or mitigated".

Providing top down guidance may also be more efficient in delivering the elusive objectives of simplifying and streamlining resource management decision-making generally, which have been sought by successive Ministers since 2009.[38] But more importantly, as illustrated by *King Salmon* and *Davidson*, this approach provides stronger legal methods for landscape management and conserving biodiversity that in a more neutral planning environment are not usually prioritized over "property rights".[39] It is understood that *Davidson* is now destined for the Court of Appeal on further appeal.

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[36] David Grinlinton "Contemporary Environmental Law in New Zealand" in Klaus Bosselmann and David Grinlinton (eds) *Environmental Law for a Sustainable Society* (1st edn New Zealand Centre for Environmental Law 2002), 26-27.
[37] [2014] NZEnvC 118.
[38] Ministry for the Environment *Report of the Minister for the Environment's Resource Management Act 1991 Principles Technical Advisory Group* (Ministry for the Environment 2012); Nolan (n 22) 1071.
[39] Stuart Bell and Donald McGillivray *Environmental Law* (7th edn Oxford University Press 2008), 686; Trevor Daya-Winterbottom "Politics and biodiversity: New Zealand perspective" [2011] 4 Env Liability 132 at 145.

COUNTRY REPORT: UNITED STATES

Election of President Trump Shocks Environmentalists and Threatens Obama Administration's Environmental Legacy

Robert V. Percival*

Introduction

In 2016, his last full year in office, President Obama moved aggressively to cement his environmental legacy and to shift U.S. energy infrastructure away from fossil fuels. However, the surprising election of President Donald J. Trump in November 2016 threatens to undermine many of the Obama administration's environmental accomplishments. During the 2016 presidential campaign, candidate Trump vowed to abolish the U.S. Environmental Protection Agency (EPA), to "cancel" the Paris Climate Agreement, and to repeal regulations limiting emissions of greenhouse gases. While President Trump has backed off his pledge to abolish the EPA, he has appointed former Oklahoma Attorney General Scott Pruitt, a fierce opponent of the agency who had sued it more than a dozen times, to be its new administrator and he has proposed to cut EPA's budget by 31 percent. President Trump has issued executive orders directing Pruitt to reconsider and possibly rescind both regulations to control emissions of greenhouse gases and regulations to clarify the reach of federal jurisdiction under the Clean Water Act. He has imposed a "regulatory budget" on agencies barring the imposition of any net costs on industry, and he has rescinded guidance issued by the Council on Environmental Quality directing agencies to consider the impact of climate change when performing environmental impact assessments. A Congress controlled by Trump's Republican Party has used the Congress Review Act to repeal regulations adopted during the last months of the Obama administration.

Air Pollution and Climate Change

EPA Regulation of GHG Emissions from Power Plants

In 2015 the EPA adopted final rules for controlling greenhouse gas (GHG) emissions from existing power plants. Known as the Clean Power Plan, the regulations are designed to reduce GHG emissions from this sector by 32% over 2005 levels by 2030. The regulations were

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issued pursuant to §111(d) of the Clean Air Act, which allows the agency to require states to regulate a pollutant for which it has established a new source performance standard if it is not already regulated as a criteria air pollutant with a national ambient air quality standard (NAAQS) or as a hazardous air pollutant subject to a national emissions standard for hazardous air pollutants (NESHAP).

On 23 October 2015 at least 17 separate lawsuits challenging the EPA's Clean Power Plan were filed in the D.C. Circuit. The state of West Virginia, joined by 23 other states, was the lead plaintiff in the first lawsuit filed. Industry trade associations, unions, and the states of Oklahoma and North Dakota also filed suits. Several of these states and groups prematurely filed lawsuits in 2014 before the rule was even adopted in final form. These cases were dismissed as premature, but the new round of litigation was filed timeously. On 21 January 2016, the U.S. Court of Appeals for the D.C. Circuit refused to grant a stay of the regulations, while expediting consideration of the cases. On 9 February 2016, the U.S. Supreme Court stunned observers by reversing the D.C. Circuit ruling and staying the regulations until all legal challenges to them have been resolved. The stay, which was unprecedented for the Court, was issued by a 5-4 vote just four days before Justice Antonin Scalia died suddenly and unexpectedly.

In June 2016 the U.S. Court of Appeals for the D.C. Circuit surprised litigants by announcing that legal challenges to the Clean Power Plan would be heard by the full court, rather than by the three-judge panel to which they initially had been assigned. On 27 September 2016, the court heard oral argument with ten of the eleven judges on the D.C. Circuit participating. Chief Judge Merrick Garland, who had been nominated by President Obama to the U.S. Supreme Court to fill the vacancy created by the death of Justice Scalia, recused himself from hearing the case. Although it had scheduled 3 hours for oral argument, the court ultimately heard argument for more than 6 hours. Challengers argued that the Clean Power Plan violates the Clean Air Act, the Administrative Procedure Act, and the U.S. Constitution. While a decision on these challenges could be issued at any time, the Trump administration has asked the court to suspend the litigation while it takes steps to repeal the Clean Power Plan.

On 28 March 2017, President Donald Trump issued Executive Order 13,783 on "Promoting Energy Independence and Economic Growth."[1] The order requires agencies to conduct an immediate review of all actions that potentially burden the safe, efficient development of

[1] A copy of the order is available online at: https://www.gpo.gov/fdsys/pkg/FR-2017-03-31/pdf/2017-06576.pdf.

domestic energy resources. It directs that President Obama's June 2013 Climate Action Plan be rescinded along with Executive Order 13,653 on "Preparing the United States for the Impacts of Climate Change", the September 2016 Presidential Memorandum on Climate Change and National Security, and the Council on Environmental Quality's Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews (81 Fed. Reg. 51866 (Aug. 5, 2016)). Executive Order 13,783 also directs the EPA Administrator to review EPA's Clean Power Plan and, if appropriate, to suspend, revise, or rescind the regulations.

Obama EPA Strengthens Fuel Economy Standards; Trump Orders Reconsideration

On 30 November 2016 the EPA announced that it would adopt regulations requiring U.S. automobile manufacturers to more than double the fuel economy of their vehicles by the year 2025. A week before leaving office in January 2017, the Obama administration announced the adoption of a 54.5 miles per gallon corporate average fuel economy (CAFE) standard for 2025. On 15 March 2017, President Donald Trump ordered the EPA to reconsider this regulation.

EPA Regulations on Power Plant Emissions of Mercury and Air Toxics

On 19 June 2015 the U.S. Supreme Court announced its decision in Michigan v. EPA. By a 5-4 majority, the Court held that the words "appropriate and necessary" in § 112(n)(1)(A) of the Clean Air Act required the EPA to consider costs when it made the initial decision to regulate emissions of mercury and air toxics from power plants. The Court held that the EPA's subsequent consideration of costs when it promulgated the mercury and air toxics regulations was insufficient to comply with the statute. However, the Court's decision was very narrow and the EPA's regulations were not vacated on remand. On 14 April 2016, the EPA responded to the Supreme Court decision by issuing a final finding, 81 Fed. Reg. 24420 (Apr. 25, 2016), that it is necessary and appropriate to set standards for emissions of air toxics from coal- and oil-fired power plants. This finding currently is being challenged in court.

Protection of Water Quality

Legal Challenges to EPA's "Waters of the United States" Rule

In May 2015 the EPA issued a final rule clarifying its interpretation of the meaning of "waters of the United States," the jurisdictional trigger for federal regulation under the Clean Water Act. The rule is a response to the Supreme Court's sharply divided (4-1-4) ruling in *Rapanos v. U.S.* in 2006. In that decision Chief Justice Roberts expressly invited the EPA to issue new rules clarifying the reach of its jurisdiction and indicated that they would be entitled to

deference under the Court's *Chevron* doctrine. On 9 October 2015 the U.S. Court of Appeals for the Sixth Circuit by a 2-1 vote issued a nationwide stay of the EPA's "waters of the U.S." rule.

In January 2017 the U.S. Supreme Court agreed to decide whether the rule first should be challenged in the federal district courts. In National Association of Manufacturers v. Department of Defense, No. 16-299, the Court will decide this issue. The U.S. Court of Appeals for the Sixth Circuit has stayed the "waters of the U.S." litigation pending the outcome of the Supreme Court case.

On 28 February 2017 President Donald Trump signed Executive Order 13,778 on "Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the 'Waters of the United States' Rule". The Executive Order directs EPA Administrator Scott Pruitt to reconsider the EPA's "waters of the United States" rule. It directs the EPA to consider adopting Justice Scalia's "continuous surface connection" test that obtained only four votes in the Supreme Court's *Rapanos* decision. Because this test, which would sharply restrict the reach of federal jurisdiction, was rejected by a majority of the Court the EPA would be on shaky legal grounds if it adopted it.

The Hawkes *Decision on Reviewability of Wetlands Determinations*

On 31 May 2016 the U.S. Supreme Court ruled unanimously that jurisdictional determinations (JDs) by the U.S. Army Corps of Engineers that property contains wetlands subject to § 404 of the Clean Water Act are judicially reviewable. The decision in U.S. Army Corps of Engineers v. Hawkes, Inc. was not a surprise, even though most U.S. Courts of Appeals had ruled that the issuance of a JD did not trigger judicial review. In a majority opinion written by Chief Justice Roberts, the Court held that the issuance of a JD is "final agency action" that may be challenged in court under the Administrative Procedure Act because it is definitive in nature and has direct legal consequences. The Chief Justice noted that a memorandum of understanding between the Corps and the EPA makes a JD binding on both agencies for five years. An extraordinary concurring opinion by Justice Kennedy, joined by Justices Thomas and Alito, harshly criticized the "ominous reach" of the Clean Water Act and stated that the Act "continues to raise troubling questions regarding the Government's power to cast doubt on the full use and enjoyment of private property throughout the Nation."

Environmental Enforcement

Federal Court Approves BP Settlement

As reported last year, on 5 October 2015 the U.S. government and five states reached a

settlement with BP to resolve civil claims arising from the April 2010 blowout and massive oil spill in the Gulf of Mexico. BP agreed to pay a total of $20.8 billion for violations of the Clean Water Act and Oil Pollution Act and for economic and natural resources damages. The settlement includes a $5.5 billion federal Clean Water Act penalty, the largest civil penalty in the history of environmental law, 80% of which will be devoted to restoration efforts. It also includes $8.1 billion in natural resource damages that will be paid to federal and state trustees for Gulf restoration projects and an additional $700 million to address any later-discovered natural resource conditions. BP also agreed to pay $4.9 billion to the five Gulf states and up to a total of $1 billion to several hundred local governmental bodies to settle claims for economic damages suffered as a result of the spill. On 4 April 2016, the federal district court in New Orleans approved the consent decree.

Volkswagen Settlement and Criminal Prosecution

The EPA's most significant enforcement action in 2016 was taken against Volkswagen for installing "defeat device" software on its diesel vehicles that disabled their pollution control devices except when they were being tested. The emissions control cheating occurred on 590,000 vehicles sold in the U.S. in model years 2009 to 2016 and more than 11 million vehicles worldwide. Volkswagen's intentional deception resulted in much higher levels of pollution from vehicles Volkswagen was touting as "green diesels". In June 2016, October 2016, and January 2017, the U.S. Department of Justice reached civil settlements with Volkswagen for violations of the Clean Air Act.

In October 2016 federal district Judge Charles Breyer of the northern district of California approved a $14.7 billion settlement of more than 450 consolidated private lawsuits and a consent decree with federal and state authorities. The settlement requires Volkswagen to recall the affected vehicles and to spend more than $10 billion on owner buybacks and compensation. In addition Volkswagen (VW) must pay a $1.45 billion civil penalty, invest $2 billion in zero emissions vehicle promotion and charging infrastructure, and create a $2.7 billion mitigation trust fund for projects that reduce NOx emissions. Criminal charges are now being pursued against VW executives for an intentional conspiracy to violate the Clean Air Act. Oliver Schmidt, former top emissions compliance manager for VW in the U.S., was arrested by the FBI in Florida in January 2017 as he sought to return to Germany.

Federal Legislation

Frank R. Lautenberg Chemical Safety for the 21st Century Act Enacted

On 7 June 7 the U.S. Senate by a voice vote passed the Frank R. Lautenberg Chemical Safety for the 21st Century Act. The legislation had passed the U.S. House by a vote of 403-12 on May 24, 2016. President Obama signed the legislation into law on 22 June 2016. This is the first comprehensive updating of the Toxic Substances Control Act since it was first adopted in 1976. The legislation is the product of a bipartisan agreement initially announced in May 2013 by Democratic Senator Frank Lautenberg and Republican Senator David Vitter. The final legislation is named in tribute to Lautenberg, who died suddenly less than two weeks after reaching the agreement. New Mexico Senator Tom Udall became the chief Democratic champion of the legislation after Lautenberg's death.

The legislation requires the EPA to set risk-based priorities for testing and evaluation of chemicals and it requires the chemical industry to contribute funding to support such efforts. It was supported by both the chemical industry and major environmental groups, including the Environmental Defense Fund. A few environmentalists and some state officials complained that the legislation was not stringent enough and could preempt state regulations. However, it is widely agreed that the legislation was far better than the existing law, which puts too great a burden on the EPA to use cost-benefit to justify regulation and preempts state regulation of chemicals regulated by EPA. The legislation requires more testing of chemicals and replaces the existing requirement that regulation employ the "least burdensome" regulatory option, instead requiring EPA to "determine whether technically and economically feasible alternatives that [are more beneficial to] health or the environment . . . will be available as a substitute."

EPA Budget and Executive Order 13,771

The omnibus budget bill adopted by Congress funded the EPA at a level of $8.1 billion for the 2016 fiscal. As a result of budget reductions, the EPA now has only 15,000 employees, down from 17,000 at the start of the Obama administration in 2009. President Trump has proposed to slash the EPA's budget by 31% to $5.7 billion, the deepest cut he proposed for any federal agency. The Trump budget seeks to cut one quarter of the agency's 15,000 jobs. Congress, however, must enact the budget and it appears likely that the cuts will not be as deep as Trump has proposed.

On 30 January 2017, President Trump signed Executive Order 13,771 on "Reducing Regulation and Controlling Regulatory Costs". President Trump described it as mandating "the largest cut by far, ever in terms of regulation" and the key to "cutting regulations massively" for businesses. The Order requires federal agencies to repeal two existing regulations for each new regulation they issue and it gives each agency a regulatory budget of zero for the imposition of aggregate costs on industry during the current fiscal year.

President Trump's Executive Order has legal qualifiers. It purports not to "impair or otherwise affect" agencies' existing legal authority and it requires federal agencies to comply with the Administrative Procedure Act (APA) when repealing rules. The APA's judicial review provisions direct courts to strike down agency actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." If an agency's only justification for repealing a rule is to comply with President Trump's new directive, it should be possible to convince a reviewing court that the action is arbitrary enough to be struck down.

Congress Uses Congressional Review Act to Overturn Stream Protection Regulations

As noted in last year's report, EPA opponents in Congress tried to use the Congressional Review Act (CRA) to veto several EPA regulations, but were blocked by vetoes from President Obama. The CRA creates a special fast-track procedure permitting an up-or-down vote in each house of Congress to disapprove a regulation within 60 legislative days of its passage. With the inauguration of President Trump, Congress has used the CRA to veto several regulations. On 16 February 2017, President Trump signed a joint resolution of disapproval vetoing an Interior Department regulation that would have limited the dumping of debris from mountaintop mining into streams.

International Environmental Law

Paris Climate Agreement

On the eve of a G20 Summit in Hangzhou, China on 3 September 2016, U.S. President Barack Obama and Chinese President Xi Jinping announced that both countries had ratified the December 2015 Paris Climate Agreement. President Obama did not submit the agreement to the U.S. Senate for formal ratification as a treaty, which would have required approval by a two-thirds vote. Instead the President bypassed Congress and deposited an instrument of acceptance with the Secretariat for the UN Framework Convention on Climate Change based on his conclusion that he did not need any new legislation from Congress to implement U.S. commitments under the Agreement. The Agreement entered into force on 4 November 2016.

Although he once pledged on the campaign trail to "cancel" the Paris Climate Agreement, President Trump has not given notice that the U.S. will withdraw from the pact. Some presidential advisers have urged him to do so, but he apparently has followed the advice of his daughter Ivanka and her husband Jared Kushner, who are now White House aides. When President Trump had his first meeting with Chinese President Xi Jinping in April 2017, climate change reportedly was not discussed.

President Trump Reverses Obama Disapproval of Canada's Keystone XL Pipeline Project

On 24 March 2017, President Trump announced that he had approved a permit for construction of the controversial Keystone XL pipeline to transport oil from Alberta, Canada's tar sands to oil refineries in Texas. This action reverses President Obama's November 2015 decision to reject TransCanada's application to build the pipeline. President Obama had argued that because the pipeline would facilitate the extraction and marketing of higher carbon oil that would contribute to increased greenhouse gas emissions approval would be inconsistent with U.S. leadership in combating climate change.

U.S./Cuba Oil Spill Agreement

On 9 January 2017, the Obama administration signed an agreement with the government of Cuba to establish a programme to prevent, contain and clean up major oil spills in the Gulf of Mexico. The agreement calls for the U.S. and Cuba to prepare joint disaster plans and to train personnel to implement them.

Chevron/Ecuador RICO Judgment Affirmed on Appeal

The decades-long saga of efforts by residents of Ecuador to seek redress for oil pollution allegedly caused in the 1970s by an American oil company continued in 2016. In 2011 they obtained a $9 billion judgment against Chevron from a court in Ecuador. Chevron responded by suing the plaintiffs and their lawyers in U.S. Court under the Racketeering Influence and Corrupt Organizations (RICO) Act, alleging that the lawsuit was a fraud. In 2014 U.S. federal district Judge Lewis A. Kaplan ruled that the judgment had been obtained by fraud perpetrated by U.S. lawyers for the plaintiffs. The judge barred any enforcement of the judgment in the U.S. and barred the U.S. lawyers from receiving any of the proceeds from collection of the judgment in other countries. In August 2016 the U.S. Court of Appeals for the Second Circuit affirmed Judge Kaplan's judgment.

Conclusion

The Trump administration seems to have launched a "slash and burn" attack on environmental regulation. It seems likely that the EPA's budget will be slashed and the agency will seek to roll back several important regulations. This will spawn significant litigation as environmentalists challenge agency actions in court. What remains to be seen is how active Congress will be in trying to amend the underlying environmental laws. To be enacted, new legislation must achieve some bipartisan support because of the 60-vote margin needed to overcome a filibuster in the Senate where only 52 of the current 100 Senators are Republicans. However, in April 2017 the Senate by a simple majority eliminated the filibuster for confirmation of Supreme Court Justices in order to confirm conservative Justice Neil

Gorsuch. If the Senate subsequently eliminates the filibuster for ordinary legislation, some important U.S. environmental laws may be at serious risk.

COUNTRY REPORT: SOUTH AFRICA

Developments in Environmental Law during 2016: Integrated ocean governance

Phillipa King*

Introduction

South Africa's ocean territory comprises a rich array of living and non-living resources which provide significant socio-economic opportunities to a wide range of users, often with competing interests. The impacts associated with many ocean uses however mean that the preservation and protection of marine ecosystems and their unique biodiversity is crucial to ensuring the sustainable development of the country's marine resources.[1]

The United Nations Convention on the Law of the Sea (UNCLOS), which has been ratified by South Africa, grants coastal states jurisdiction over (and the right to exploit all natural resources within) their Exclusive Economic Zone (EEZ).[2] Coastal states are furthermore entitled to harvest mineral and non-living resources in the subsoil of their Continental Shelf,[3] to the exclusion of others; and have exclusive control over living resources belonging to sedentary species on the ocean floor.[4] The extent of South Africa's EEZ is currently more than 1 550 000 km² (and includes the EEZ off the Prince Edward islands and Marion Island). Claims have also been lodged under UNCLOS to extend the Continental Shelf area under South Africa's jurisdiction. If these claims are approved by the United Nations Commission on the Limits of the Outer Continental Shelf, they will double South Africa's sea-bed rights.[5]

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[1] Chapter 3 of the Draft Marine Spatial Planning Framework published in GN 936 in *GG* 40219 of 19 August 2016.

[2] Article 57 of UNCLOS provides that "*the EEZ shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.*"

[3] Article 76 of UNCLOS provides that "*the continental shelf of a coastal State comprises the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance*."

[4] Article 77 of UNCLOS.

[5] Chapter 3 of the draft Framework.

Given South Africa's extensive ocean territory (and the associated wealth of marine resources), an effective ocean governance system is fundamental to ensuring the sustainable development of the country's marine resources.[6] Despite this, the current sectoral approach to the regulation and management of South Africa's ocean space has proved to be a significant challenge to facilitating integrated ocean governance.[7] 2016 has however seen some important developments in this regard. On 3 February 2016, draft notices and regulations concerning the declaration of a network of 22 new proposed Marine Protected Areas ("MPA") (in terms of the *National Environmental Management Protected Areas Act 57 of 2003*) were published by the Minister of Environmental Affairs for public comment.[8] The draft *Marine Spatial Planning Bill* (the "Bill"), and the draft *Marine Spatial Planning Framework* (the "draft Framework") were also published for public comment by the Minister on 24 March 2016[9] and 19 August 2016[10], respectively.

The Policy Context for Integrated Ocean Governance

Integrated ocean governance and the formulation of marine spatial planning system for South Africa is rooted in various policy initiatives. Firstly, South Africa's *National Development Plan 2030* identifies certain priority development areas relevant to the marine environment (which entail developing strategies to increase off-shore renewable energy sources, off-shore oil and gas, and investing in marine engineering initiatives).[11] The *White Paper on the National Environmental Management of the Ocean Policy* furthermore proposes co-ordinated sectoral management within the existing statutory framework (with a view to ultimately moving towards integrated ocean management), as well as the enactment of new legislation aimed at improving the regulation and coordination of the management and development of South Africa's ocean territory. Importantly, the White Paper recognises the role of marine spatial planning in informing trade-off decision-making between economic sectoral role-players. Based on the White Paper, Cabinet approved the development of an integrated approach to ocean governance (including management plans for ocean areas, environmental variables, conflict scenarios and trade-offs as recommended in the White Paper) by the Minister.[12]

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[6] Marine Protection Services and Governance Final Lab Report "Unlocking the Economic Potential of South Africa's Oceans" dated 15 August 2015 ("MPSG Report") at page 10.
[7] MPSG Report at page 9.
[8] GN R92-135 in *GG* 39646 of 3 February 2016.
[9] GN 347 in *GG* 39847 of 24 March 2016.
[10] GN 936 in *GG* 40219 of 19 August 2016.
[11] Draft Framework at page 10.
[12] Draft Framework at page 10 and the White Paper at pages 16 and 27.

The 'Oceans Economy' was also identified as one of the key areas for development as part of Operation Phakisa (a South African Government initiative aimed at addressing critical issues highlighted in the National Development Plan). While Operation Phakisa is focussed on potential growth areas within the Oceans Economy (particularly offshore oil and gas exploration; marine transport and manufacturing; and aquaculture sectors), it also recognises the importance of marine protection, integrated ocean governance and marine spatial planning in ensuring that such development is sustainable.[13]

As part of the Operation Phakisa initiative, the Marine Protection Services and Governance Lab (comprising representatives from Government, the private sector and NGOs) (the "MPSG Lab") was established in order to develop an overarching, integrated governance framework for sustainable growth of the ocean economy, with the aim of maximising socio-economic benefits while ensuring adequate ocean environmental protection. The final report prepared by the MPSG Lab[14] identified three focus areas requiring attention. Firstly, it highlighted the need for an integrated framework and governance process to provide certainty around various stakeholders' roles and responsibilities, and the management of multiple users of the same ocean space. The second area of concern related to ocean protection (which requires effective enforcement and compliance monitoring as well as the identification and protection of sensitive and unique marine habitats and species). Marine spatial planning was identified as the third focus area. This aspect is linked to the first focus area in that it relates to the use of the ocean space by multiple users (and the associated regulation of the marine environment by multiple regulatory authorities). Importantly in this regard the MPSG Lab Report identified the need to consolidate existing research regarding the ocean space, as well as to conduct additional research, surveys and monitoring) in order to inform the marine spatial planning process.[15]

First Steps Towards Integrated Ocean Governance

Proposed Declaration of New Marine Protected Areas

The publication of the draft notices to proclaim a network of 22 new MPAs (together with MPA-specific regulations)[16] marks the first step towards meeting the protection-related goals of Operation Phakisa. The proposed network will entail approximately 70 000km² of marine protected areas, expanding the total area under formal protection within South Africa's EEZ to

[13] MPSG Report at page 21.
[14] MPSG Report referred to in footnote 6 above.
[15] MPSG Report at page 21.
[16] GN R92-135 in *GG* 39646 of 3 February 2016.

more than 5%, from only 0.5%.[17] Importantly the regulations associated with the declaration of each of the MPAs prescribe particular use zones, and regulate the conduct of users within the various MPAs.[18]

The Marine Spatial Planning Bill and Draft Marine Spatial Planning Framework

Internationally, marine spatial planning has been recognised as an important tool in the regulation and governance coastal states' ocean jurisdiction and marine resources.[19] While South Africa's legislative framework does not, as yet, make provision for a marine spatial planning system, the publication of the Bill and draft Framework have laid the foundations for an integrated ocean governance system, which is premised on effective marine spatial planning.

The draft Framework describes marine spatial planning as follows:

> *"Marine Spatial Planning is an approach to improving the rational planning, management and governance of ocean space and marine resources. Marine Spatial Planning entails a development planning approach for marine areas by more coherently organizing the use of space to guide single-sector decision-making and provide for comprehensive, integrated and complementary planning and management. Marine Spatial Planning offers a practical way to address both specific challenges and select appropriate management strategies to maintain a good status of ecosystem health that will, in turn, facilitate the advancement of national and regional economic and socio-cultural development."*[20]

The preamble to the Bill is aligned with the above description, and acknowledges the importance of balancing economic, ecological and social objectives, as well as the need to co-ordinate planning in South Africa's ocean space in order to optimise sustainable economic growth.

Section 2 of the Bill sets out the objects of the Act. In line with the policy-imperative to develop the Ocean Economy, the first stated objective of the Bill is to "*promote sustainable economic development opportunities which contribute to the development of the ocean economy through co-ordinated and integrated planning*".[21] The second objective entails the development of a national marine spatial planning process which is accessible to all sectors

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[17] Department of Environmental Affairs press release "Minister Edna Molewa publishes draft notices and regulations to declare a network of 22 new proposed Marine Protected Areas" dated 9 February 2016.

[18] The following MPAs are to be declared: iSimangaliso Wetland Park; Aliwal Shoal; Agulhas Front; Cape Canyon; Childs Bank; Protea Banks; Browns Bank Complex; Benguela Bank; Browns Bank Corals; Namaqua Fossil Forest; Namaqua National Park; Robben Island; Agulhas Bank Complex; Agulhas Muds; Amathole Offshore; Benguela Muds; Port Elizabeth Corals; Addo Elephant Park; Southeast Atlantic Seamount; Southwest Indian Seamount; uThukela Banks ; and Orange Shelf Edge.

[19] Draft Framework at page 9.

[20] Draft Framework at page 1.

[21] Section 2(a) of the Bill.

and ocean users, as well as to facilitate good governance. Finally, the Bill seeks to provide for the documentation, mapping and understanding of the physical, chemical and biological ocean processes and opportunities in, and threats to, the ocean.[22]

Once in force, the Act will apply on, or in, South African waters, and to all persons, vessels and aircraft in South African waters (or in the air space above South African waters). [23] Significantly section 3(2) of the Bill provides that the Act will bind all organs of state.[24] While it is clear that the marine spatial planning system is intended to regulate the use of the marine environment by users, it will also serve to guide and inform all administrative decision-making concerning South Africa's marine jurisdiction.

The Bill provides for the formulation of a marine spatial planning system entailing five core components, which are required to be developed by the Director-General Technical Committee established in terms of section 7 of the Act (the "Technical Committee").[25] Firstly, and in order to inform the formulation of the proposed system, the Bill requires the development of a knowledge and information base to facilitate reporting on the ocean environment in terms of the *National Environmental Management Act 107 of 1998*, or any specific environmental management acts, and to provide any additional information relevant to marine spatial planning.[26]

The second component which is central to the proposed marine spatial planning system is a marine spatial plan, which is described in section 5(c) of the Bill as "*an iterative mechanism of analysing and allocating the spatial and temporal distribution of human activities in the exclusive economic zone to achieve ecological, economic, and social objectives*". Section 6(d) of the Bill is peremptorily framed and requires that the marine spatial plan will include (but not be limited to) a range of considerations set out in (i) to (xvii) thereto.[27] Those considerations include *inter alia* maps and spatial data relating to sectoral uses; the compatibility of uses within ocean planning areas; environmental considerations and threats to natural systems; current and future uses; cultural and socio-economic considerations; existing monitoring and management arrangements; and methods of assessing performance and consistency with the plan.[28]

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[22] Section 2 of the Bill.
[23] Section 3(1) of the Bill. "*South African waters*" are defined with reference to the *Maritime Zones Act 15 of 1994*, and include the internal waters, territorial waters, EEZ and continental shelf.
[24] Section 3(2) of the Bill.
[25] Sections 5 and 6 of the Bill.
[26] Section 5(a) of the Bill.
[27] Section 5(c) of the Bill.
[28] Section 6((1)(d) of the Bill.

Thirdly, a marine spatial planning framework and marine area plans (for the East Coast, South-East Coast, West Coast and Prince Edward Islands) are also required to be developed by the Technical Committee in order to set out the principles and frameworks for the development of a marine spatial plan.[29] As noted above, the draft Framework has already been subjected to a public commenting process. The draft Framework sets out the procedural and content requirements applicable to the development of marine area plans. Guidance is also provided in respect of the review and approval, implementation, monitoring and evaluation, and revision of marine area plans.[30]

Provision is also made in the Bill for the development of marine sector plans (being the fourth component of the proposed system) which are intended to inform co-ordinated sector planning in respect of the implementation, monitoring, evaluation, and review of the marine spatial plan. Such plans are intended to set out the priorities and potential use allocations for specific users of the ocean space, and are to be developed by the organ of state responsible for a particular sector.[31] Finally, the fifth component of the proposed marine spatial planning system entails an "*effective implementation, monitoring and evaluation, and review of the marine spatial plan*".[32]

Importantly, the Bill provides that "*an appropriate consultation process with all organs of state and members of the public must be followed"* when developing the marine spatial plan. In this regard, it requires the publication of the marine spatial planning framework and plans in the Gazette, while the marine spatial plan, together with any relevant maps and GIS data must be made available on an appropriate electronic platform.[33]

In the spirit of co-operative governance, the Bill provides that the Technical Committee will be comprised of the Directors-General responsible for administering a range of portfolios concerned with the marine environment. Directors-General from other relevant departments may also be co-opted onto the Technical Committee where necessary.[34] In addition to the

[29] Section 5(b) of the Bill.
[30] Chapter 5 of the draft Framework.
[31] Sections 1 and 5(c) of the Bill
[32] Section 5 and 6 of the Bill
[33] Sections 6(2) and (3) of the Bill.
[34] Section 7(1) and (2) of the Bill. The Technical Committee will comprise Directors-General responsible for administering environmental affairs, fisheries, trade and industry, transport, mineral resources, energy, public enterprises, science and technology, international relations, higher education and training, rural development and land reform, labour, public works, home affairs, small business development, tourism, National Treasury, economic development, and monitoring and evaluation in the Presidency.

Technical Committee's responsibilities relating to the formulation of the marine spatial planning system, it is also required to undertake the following: Coordinate the maintenance, implementation, monitoring and evaluation, and review of the marine spatial plan; coordinate and determine priorities on the implementation of the marine spatial plan; ensure cooperation between sector departments; identify the current and future needs and related priorities; consider sector plans and identify compatible and incompatible uses within specific ocean planning areas, synergies among compatible users, projections, forecast and future planning scenarios, analysis of emerging uses, and environmental change impacts; and resolve user conflicts, including trade-offs or off-sets between sectors.[35]

The Ocean Economy Ministerial Management Committee (the "Ministerial Management Committee") is also comprised of Ministers across a wide spectrum of portfolios (and Ministers from other departments may be co-opted where required). The Technical Committee may refer any matter to the Ministerial Management Committee for a decision. Insofar as the Ministerial Management Committee is not able to make a decision, the matter may be referred to the Executive Issue Resolution Committee which will be constituted on an *ad hoc* basis, and will be comprised of the Deputy President and relevant Ministers.[36]

Section 11 of the Bill provides that an organ of state may not issue any permit, permission, licence or other authorisation that is contrary to the marine spatial plan or any final decision of the Technical Committee, the Ministerial Committee,[37] or the Executive Issue Resolution Committee. In this regard, it is clear that the marine spatial plan is intended to inform decision-making by authorities concerned with the marine environment.

Conclusions

The publication of the draft Bill and Framework demonstrate a commitment by the South African Government to develop a marine spatial planning system which regulates and manages the use of the country's ocean territory. Certain aspects of the Bill do, however, present some concerns. For example, the Bill does not provide any mechanism to enable interested and affected parties (or users) to challenge any decision made in terms of the Act, or to seek the amendment of any aspect of the marine spatial plan (or any other component of the marine spatial planning system for that matter).

[35] Section 8(1) of the Bill.
[36] Sections 9 and 10 of the Bill.
[37] To be established in terms of section 9 of the Act.

While reference is made to the role which the Technical Committee, and potentially the Ministerial Committee and Executive Issue Resolution Committee, might play in the resolution of user conflicts (including tradeoffs or off-sets between sectors), it is not clear how users might initiate this conflict resolution process. Given the binding nature of the marine spatial plan (and the decisions of various Committees) insofar as the grant of any permit, permission, licence or other authorisation concerning the marine environment by an organ of state is concerned, an appropriate appeal mechanism ought properly to be provided in the Act. Furthermore, the inclusion of an amendment process would enable the marine spatial planning system to be more dynamic and responsive to any new information which might come to light (for example during an EIA process).

The Bill will presumably see further iterations informed by the public commenting process, and the parliamentary legislative process. It is therefore hoped that the *Marine Spatial Planning Act*, once promulgated, will make adequate provision for interested and affected parties to raise concerns and engage with the marine spatial planning system through appropriate mechanisms.

REGION REPORT: EU
FILLING THE GAP IN THE EU AIR QUALITY LEGISLATION: THE MEDIUM COMBUSTION PLANTS DIRECTIVE

Samvel Varvaštian*

The *Medium Combustion Plants Directive*: An Overview

The 2015 *Medium Combustion Plants Directive* (MCPD)[1] was initially a part of the clean air legislation package initiated by the European Commission in order to achieve the short-term and long-term EU air quality objectives.[2] The need for adopting the Directive was obvious: the MCPs increasingly contributed to air pollution,[3] but emissions from them were not regulated at the EU level,[4] even despite the fact that regulation of emissions from small and large combustion plants has already been present for a few years.[5] Thus, the combustion of fuel in certain small combustion plants and appliances is covered by implementing measures as referred to in Directive 2009/125/EC,[6] although further measures are urgently needed under this act in order to cover the remaining regulatory gap.[7] Meanwhile, combustion of fuel in large combustion plants is covered by Directive 2010/75/EU,[8] which repealed the previous Directive 2001/80/EC on the limitation of emissions of certain pollutants into the air from large combustion plants.

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[1] Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (OJ L 313, 28.11.2015, p. 1).

[2] For an assessment of the latter see Samvel Varvaštian, *Achieving the EU Air Policy Objectives in Due Time: A Reality or a Hoax?*, (2015) 24(1) European Energy and Environmental Law Review 2-11.

[3] MCPs are widely used for electricity generation, domestic and residential heating and cooling, providing heat and steam for industrial processes, etc., and substantially contribute to emissions of various air pollutants. The estimated number of such plants in the EU is around 143 000. See http://ec.europa.eu/environment/industry/stationary/mcp.htm.

[4] See MCPD, recital 4.

[5] ibid. recital 5.

[6] ibid. Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products (OJ L 285, 31.10.2009, p. 10)

[7] ibid.

[8] ibid. Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (OJ L 334, 17.12.2010, p. 17).

The new MCPD addresses the control of emissions of sulphur dioxide (SO_2), nitrogen oxides (NO_x) and dust into the air as well as the monitoring of carbon monoxide (CO) emissions.[9] The scope of the Directive is restricted to MCPs only – that is, to combustion plants with a rated thermal input equal to or greater than 1 MW and less than 50 MW (irrespective of the type of used fuel)[10] and to combinations formed by two or more new MCPs if their emissions are, or could be, discharged through a common stack.[11] The Directive does not cover a range of combustion plants and other similar facilities, including plants in which the gaseous products of combustion are used for the direct heating, drying or any other treatment of objects or materials, technical apparatuses used in the propulsion of vehicles, ships or aircraft, gas turbines and gas and diesel engines, when used on offshore platforms, reactors used in the chemical industry, coke battery furnaces, etc.[12]

The Directive envisages a Member States-based permit and registration system for the MCPs to operate.[13] Accordingly, it requires from the Member States to ensure that as of 1 January 2024, no existing MCP with a rated thermal input greater than 5 MW is operated without a permit or without being registered, while for MCPs with a rated thermal input of less than or equal to 5 MW this deadline is extended to 1 January 2029.[14] The procedure for granting a permit or for registration is thus to be specified at Member States' level. The general requirement is that the operator should inform the relevant national authority of the operation of an MCP, or its intention. They must also provide specified minimum information on the MCP listed in Annex I of the MCPD, including its rated thermal input, type (diesel engine, gas turbine, dual fuel engine, etc.), type and share of fuels used (solid biomass, gas oil, natural gas, etc.), expected number of annual operating hours and average load in use, etc.[15]

The cornerstone of the MCPD is the setting of emission limit values (mg/Nm^3) for SO_2, NO_x and dust. In setting these values, the Directive distinguishes between the existing MCPs and new MCPs.[16] The emission limit values for the latter are generally stricter, although a certain number of exemptions and exceptions are allowed.[17] Furthermore, the Directive sets different

[9] Art. 1.
[10] Art. 2(1).
[11] Arts 2(2) and 4.
[12] Art. 2(3).
[13] Art. 5.
[14] Art. 5(2).
[15] Art. 5(3) and Annex I.
[16] Existing MCPs are those put into operation before 20 December 2018 or for which a permit was granted before 19 December 2017 pursuant to national legislation provided that the plant is put into operation no later than 20 December 2018. New MCPs are those that do not fall within this category. See Arts 3 and 6.
[17] See, in general, Annex II.

emission limit values for both existing and new MCPs with differently rated thermal input – for example, plants with a rated thermal input from 1 to 5 MW, greater than 5 MW, etc.[18] Also, the Directive separately sets emission limit values for new and existing engines and gas turbines.[19]

Notably, the above-mentioned requirements are subject to multiple exemptions and exceptions[20] for example, in case of limited MCP operating hours, weather conditions in case of MCPs used for heat production, MCPs linked to a national gas transmission system or firing solid biomass as the main fuel, etc.[21] However, there is also a possibility for Member States to apply stricter emission limit values than those set out in the Directive for individual MCPs within zones or parts of zones not complying with the air quality limit values laid down in the *Ambient Air Quality Directive* (AAQD).[22,23] Such measures may thus be a part of the development of air quality plans referred to in Art. 23 of the AAQD,[24] taking into account the results of the information exchange between the European Commission, the Member States, the industry and NGOs[25] and provided that applying the stricter emission limit values would effectively contribute to a noticeable improvement of air quality.[26]

Apart from setting the emission limit values, the MCPD also provides a list of obligations of the operators.[27] These mainly include the monitoring of SO_2, NO_x, dust and CO emissions by means of periodic measurements and recording and processing the monitoring results as well as keeping other relevant information, for example, a record of operating hours, type and quantities of fuel used, the events of non-compliance, etc.[28] The operator is obliged to make

[18] ibid.
[19] ibid.
[20] See Art. 6 and Annex II.
[21] ibid.
[22] Art. 6(9).
[23] Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe (OJ L 152, 11.6.2008, p. 1). The Directive serves as one of the major EU air policy pillars, laying down measures aimed at establishing objectives for ambient air quality designed to avoid, prevent or reduce harmful effects on human health and the environment, assessing the ambient air quality in Member States, ensuring that information on ambient air quality is made available to the public, maintaining air quality where it is good and improving it in other cases, etc. (Art. 1). For more on AAQD see David Langlet and Said Mahmoudi, *EU Environmental Law and Policy,* Oxford University Press, 2016, at 212-215.
[24] Under Art. 23(1) of the AAQD, the Member States must establish the air quality plans when the levels of pollutants in ambient air exceed the respective values. Such plans may include measures in relation to motor-vehicle traffic, construction works, ships at berth, and the use of industrial plants or products and domestic heating (Art. 24(2)).
[25] Namely, information on the emission levels achievable with best available and emerging technologies and the related costs (Art. 6(10) of the MCPD).
[26] Art. 6(9).
[27] Art. 7.
[28] Arts 7(1), (3) and (5) and Annex III.

such information available to the competent authority upon request; such a request might be made as the implementation of the public's right of access to information.[29]

Finally, in case of non-compliance with the emission limit values provided, the operator is required to take the measures necessary to ensure that compliance is restored within the shortest possible time.[30] However, it is ultimately up to Member States to ensure the effective compliance check system, including any such requirements for the operator.[31] Thus, if non-compliance causes a significant degradation of local air quality, the Member States should ensure that operation of the MCP shall be suspended until compliance is restored.[32]

Commentary

Although the Directive does fill the gap in the EU air quality legislation, it is unclear how significant an impact it will have. After all, air quality standards appeared quite some time ago in the EU legislation and have evolved ever since; however, despite all of the progress, the problem of air pollution in Europe has been far from resolved and it is still responsible for significant expenditure each year.[33] In that context, it is worth noting that even the major policy pillars, namely the AAQD, are not immune to some strong criticism due to their failure to address the issues at stake in a critical and comprehensive way.[34] Thus, for example, the same piece of legislation, enshrining the key requirements necessary for abating air pollution as recommended by the WHO, was excluded from the revision under the clean air legislation package, incorporating the above-mentioned MCPD and other initiatives.[35] This was because it was assumed that such a revision would not be appropriate at that particular point.[36] Once again, this may be a good reminder of the fragile balance of economic and environmental rights, which has so far seen many examples of prevalence of the former over the latter.[37] It can thus not be ruled out that there will most probably be some potential pitfalls in the way of MCPD as well, which may call into question its overall resilience and efficiency, even despite

[29] Art. 7(6).
[30] Art. 7(7).
[31] Art. 8.
[32] Art. 8(3).
[33] See Varvaštian above (n 2), at 2-3.
[34] For a critical view on this see, for example, Bert Brunekreef et al., *Clean air in Europe: beyond the horizon?*, (2015) 45(1) European Respiratory Journal 7-10.
[35] For more on this see Varvaštian above (n 2), at 10.
[36] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. A Clean Air Programme for Europe. COM(2013) 918, at 4.
[37] See, for example, the practice of European Court of Justice on Member States' compliance with AAQD and/or the preceding legislation on air quality: *Commission v. Italy* (C-68/11, EU:C:2012:815, para. 59); *ClientEarth* (C-404/13, EU:C:2014:2382, para. 20). See also the Opinion of AG Kokott in case *Commission v. Bulgaria* (C-488/15, ECLI:EU:C:2016:862, para. 69).

the initial positive expectations.[38] These are, however, concerns for the future; for now, the Directive's gap-filling addressing of emissions at source is certainly a most timely and laudable move.

The Directive's adoption however followed major events in global policy, which have, or at least may have major consequences for environmental protection in general. For instance, it coincided with a historical 21st Conference of Parties to the United Nations Framework Convention on Climate Change, which resulted in the adoption of the first global climate deal – the *Paris Agreement*.[39] And just few months prior to the adoption of the MCPD, the US Environmental Protection Agency finalized its rules to reduce emissions from fossil fuel-fired power plants – the *Clean Power Plan*.[40] It thus seemed that 2015 ended on a high note in terms of global environmental protection.

The year 2016, on the other hand, has proven to be quite different. For one, in June, the "Brexit" referendum took place in the UK, resulting in the first case of an EU Member State opting to leave the Union. Accordingly, concerns have already been expressed about the potential trajectory of the future environmental policy.[41] These concerns may be multiplied, as similar referendums might be initiated in other EU Member States in the coming years.[42] Should these follow the UK scenario, this could open a question as to whether the vitality of the EU order including, of course, its environmental policy, can be successfully carried into the next decade. Since the EU has many times proven to be a flagship in the promotion of global and ambitious environmental goals,[43] any grand-scale crisis within its order may have

[38] Interestingly, in its description of the MCPD, the European Commission seems to pay particular heed to the underlying economic factors: "[the Directive] has been designed to be affordable for SMEs, and provides long-term certainty for all economic operators concerned whilst minimising the administrative burden for both industry and Member States. In addition, beyond being environmentally efficient, [it] will encourage continued innovation and help EU industry gaining shares of the rapidly growing global market of pollution control technology" (see above (n 3)).

[39] Paris Agreement under the United Nations Framework Convention on Climate Change, CFCCC/CP/2015/L.9/Rev.1.

[40] On the Clean Power Plan see, for example, Tomás Carbonell, *EPA's Proposed Clean Power Plan: Protecting Climate and Public Health by Reducing Carbon Pollution from the US Power Sector*, (2014) 33 Yale Law & Policy Review 403-426; Vicki Arroyo et al., *State Innovation on Climate Change: Reducing Emissions from Key Sectors While Preparing for a New Normal*, (2016) 10 Harvard Law & Policy Review 385-430.

[41] See, for example, Colin T. Reid, *Brexit and the future of UK environmental law*, (2016) 34(4) Journal of Energy & Natural Resources Law 407-415.

[42] Kate Lyons and Gordon Darroch, *Frexit, Nexit or Oexit? Who will be next to leave the EU*, The Guardian, 27 June 2016, https://www.theguardian.com/politics/2016/jun/27/frexit-nexit-or-oexit-who-will-be-next-to-leave-the-eu.

[43] See, for example, Christina Eckes, *Environmental Policy outside-in: How the EU's Engagement with International Environmental Law Curtails National Autonomy*, (2012) 13(11) German Law Journal 1151-1175 and Elaine Fahey, *The EU Emissions Trading Scheme and the Court of Justice: The High Politics of Indirectly Promoting Global Standards*, (2012) 13(11) German Law Journal 1247-1267.

strong repercussions on environmental policies throughout the world. This is particularly worrisome as governments in other major political powers may actually opt for a lax approach in their environmental regulation. Thus, a fair example of the vulnerable situation in which the contemporary environmental law has found itself is the US, where President Donald Trump, who openly denied climate change, vowed to withdraw the US from the Paris Agreement, which had been entered into under the administration of his predecessor Barack Obama.[44]

To sum up, these seemingly far-reaching reflections, it could be acknowledged, somewhat grimly, that despite its progress, environmental law – including that established in the EU – once again finds itself on the verge of uncertainty. And yet, this happens against a backdrop of some very worrisome data on global environmental and, accordingly, health threats that are unanimously predicted to exacerbate in the future.[45] Should the slow-moving train of environmental policy slacken its pace further, let alone stop, or even turn back, there is no telling how much more inhospitable will the planet become for the present and future generations in the decades to come than we currently believe.

[44] Steven Mufson and Brady Dennis, *Trump victory reverses U.S. energy and environmental priorities*, The Washington Post, 9 November 2016, https://www.washingtonpost.com/news/energy-environment/wp/2016/11/09/trump-victory-reverses-u-s-energy-and-environmental-priorities/?utm_term=.12faa8c68929.

[45] See, for example, the projections of climate change and its impact drawn by the Intergovernmental Panel on Climate Change. IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp., at 56-74.

BOOK REVIEW:

RESEARCH HANDBOOK ON EU AGRICULTURAL LAW

Tina Paloniitty

Joseph A. McMahon and Michael N. Cardwell (eds.)
Edward Elgar Publishing (2015)
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The *Research Handbook on EU Agriculture Law,* published in the series of research handbooks on European law by Edward Elgar, is a volume that agricultural law scholars have greatly anticipated. The handbook illuminates different aspects of Common Agricultural Policy -related EU agricultural law after the latest CAP reform in 2013, and serves as foundational reading for scholars and practitioners wishing to enhance their understanding of the field in its contemporary stage.

The book consists of four substantive parts, with each sagely concluding by "Looking back to look forward". Part One "The Instruments of the Common Agricultural Policy" deals with the instruments that comprise the Common Agricultural Policy, including chapters ranging from on the direct payments scheme and organizational regulations to risk management in agriculture. The second part "Land Use and the Common Agricultural Policy" covers land use questions and the CAP—most of these chapters are agri-environmental in nature, covering topics such as public goods discourse via environmental impact assessment, climate change, and water governance. The third part "The Common Agricultural Policy and the Food Chain" continues with broader aspects of food chain questions, such as organic farming, GMO's, and nano food (ie technofoods, foodstuffs subjected to technological process possibly producing health risk). The fourth part "The International Dimension" looks beyond the borders of the European Union to the international dimension—e.g., the direct payments scheme and the WTO, and the Millennium Development Goals on food supply—of which EU agriculture inevitably forms a part. Knowledgeable scholars have written all the Handbook's chapters, all of which are worth a read. Although the Handbook is organized under the umbrella of the CAP, most of the Handbook chapters are proximate to environmental law—illuminating how environmental impacts are intrinsic to agriculture and agricultural governance. Since readers of this review may find agri-environmental issues of

greatest interest, this review will give closer scrutiny to chapters that specifically address topics under the agri-environmental subtheme.

However, before turning to more environmental chapters, the first chapter of the whole volume, *David Harvey*'s "What does the history of the Common Agricultural Policy tell us?" is a remarkably clear analysis of the CAP's economical underpinnings and its reforms. Harvey has condensed the fundamental agricultural law issues — topics which might easily have filled a book! — into a single book chapter, and while doing so delivered a valuable, insightful, roadmap of the twists and turns the policy has taken during the past decades. My one concern about the chapter was its lack of references in its discussion of the much-debated theme of CAP's nature as income support. However, this does not diminish the overall excellence of the chapter, which is highly recommended to anyone wishing to grasp the essentials of the CAP in a single read.

The first notably agri-environmental chapter is *David Baldock*'s "Twisted together: European agriculture, environment and the Common Agricultural Policy", in which he enhances our understanding of the CAP as a complex instrument entangled in "greening" goals, expanding costs, and the "public money for public good" discourse, i.e., the role of agriculture as a provider of public good. Baldock's analysis factually embraces the environmental losses and benefits that agricultural production has brought to Europe and agriculture's role in climate mitigation. Agriculture is envisaged as both a practice that needs to adapt and as a field that might be of aid by, for instance, acting as a source of carbon sinks. The chapter is especially beneficial in its candour about governments' hesitancy in enforcing environmental regulation in the agriculture sector—a state of affairs which, even though more or less obvious to outsiders, is not always openly expressed within the agriculture policy community. Baldock does not shy away from the prevalent question of CAP's distributional role in the Union's budget, eventually questioning the compatibility of Pillar I (on common organization of the markets in agricultural products and direct payments to farmers) and Pillar II (on broader rural development policy) and suggesting that future developments might rely on structural changes in the CAP and the Union budget arrangements it hinges on.

William Howarth's "Integrated water resources management and the European Union's Common Agricultural Policy" and *Brian Jack*'s "Agriculture and water protection" are valuable reading for anyone with an interest in agricultural water governance. Howarth continues the elaborate discourse on the Water Framework Directive's ("WFD) legal scope, this time addressing the crucial question of agricultural water pollution that ought to be attuned to the WFD's legal obligations and norms (a notion that is also mentioned elsewhere in the handbook). Along the line of his previous work on the WFD, Howarth focuses on the elementary differentiation between quality and quantity

objectives, neglect of which serves to explain some of the challenges that the implementation of the WFD has faced, especially so when it comes to agricultural water pollution. Due to the major influence of runoff on water quality, the relation between the CAP and the WFD is of utmost importance. However, the amount of existing research on this question is not commensurate with its importance, making Howarth's piece even more rewarding.

Jack presents a broader view of the theme of agriculture and water protection: his analysis ranges from the Water Framework Directive to the Nitrates, the Groundwater, and the Pesticides Directives—even the Sewage Sludge Directive is included in the examination. All these are then brought together with the obligations that the CAP includes. Jack finds that, irrespective of the existing cross-compliance mechanisms, agricultural water impacts are yet to be addressed under a coherent legal system. He concludes the chapter with noteworthy considerations of the privatization of agricultural water pollution regulation. The concern stems not only from the ecosystem services discourse and its recent developments but also from the costs to water companies of removing agriculture-originated pollutants from drinking water. Whether compensation from water companies might encourage farmers to change their cultivation practices or whether landowners could be paid revenue from the rainwater their lands absorb are questions worth pondering—Jack elaborates his reflections with examples from countries where such practice has already materialized.

As noted above, only some of the chapters that may be interesting to environmental law scholars are assessed here. The rest of the handbook is a worthwhile read as well, not only for those intrigued by the umbrella theme but also for anyone wishing to gain insight on the latest developments in a field that greatly influences the environment.