

Framework Model Curriculum on Continuing Legal Education In

Environmental Law



Copyright © United Nations Environment Programme, 2019

This publication may be reproduced in whole or in part and in any form for educational or nonprofit purposes without special permission from the copyright holder, provided acknowledgement of the source is made. The United Nations Environment Programme would appreciate receiving a copy of any publication that uses this publication as a source. No use of this publication may be made for resale or for any other commercial purpose whatsoever without prior permission in writing from the United Nations Environment Programme.

Disclaimer

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the United Nations Environment Programme concerning the legal status of any country, territory, city or area or of its authorities, or concerning delimitation of its frontiers or boundaries. Moreover, the views expressed do not necessarily represent the decision or the stated policy of the United Nations Environment Programme, nor does citing of trade names or commercial processes constitute endorsement.

> UNEP promotes environmentally sound practices globally and in its own activities. This publication will be available as an electronic document. Our distribution policy aims to reduce UNEP's carbon footprint.





Framework Model Curriculum on Continuing Legal Education In Environmental Law

Acknowledgments

This Model Framework curriculum on continuing legal education on environmental law was developed by the United Nations Environment Programme in collaboration with the International Bar Association.

We gratefully acknowledge the valuable contributions by members of the working group established to develop the framework curriculum. We specifically wish to appreciate Mr. Peter Koves, chair of the Bar Issues Commission of the International Bar Association for his selfless stewardship of the working group. We also express our appreciation to members of the working group including Mr. Javier de Cendra de Larragan, Ms. Angeles Murgier, Mr. Roger Martella, Mr. Christopher Howard and Mr. Allan Meso for their exceptional contribution in developing this most impressive document.

Foreword

The legal system plays a critical role in realizing the environmental dimension of sustainable development. As the field of environmental law expands rapidly, it is important that we guide the development of knowledge and skills of legal practitioners to be able to effectively support sustainable development, and the health of people and planet.

The United Nations Environment Programme and the International Bar Association are therefore pleased to have developed the Model Framework curriculum for continuing legal education on environmental law so that lawyers are able to effectively enforce environmental law, nationally and regionally, and are equipped to support the implementation of environmental rule of law. This framework responds to requests from the United Nations Environment Programme Member States seeking guidance on effective legislative, implementation and enforcement frameworks to advance justice, governance and law for environmental sustainability.

We expect that this is curriculum will be complimented at the national level with relevant country-specific legal materials that will strengthen the ability of lawyers to interpret and support enforcement of domestic environmental law in their individual countries.

We also hope that this curriculum will contribute to meeting the training needs of legal practitioners and we look forward to working closely with national and regional bar associations as well as providers of continuing legal education, to build the capacities of lawyers to develop and apply environmental law.



Inger Andersen Executive Director United Nations Environment Programme



Horacio Bernardes Neto President International Bar Association

Contents

Acknowledgments		2
Foreword		3
Ι.	About the Curriculum	5
ii.	Significance of the Framework Curriculum	5
.	How to Implement the Curriculum	6
IV.	The Curriculum Modules	7
	Module 1: An Overview Of Environmental Law	7
	Module 2: Negotiation And Drafting Of Natural Resource Agreements,	
	and Study of Natural Resources Laws And Regulations	8
	Module 3: Access to Environmental Information, Public Participation and Access to Justice (Including Alternative Dispute Resolution Mechanisms and Public Interest Litigation), Judicial Review and Constitutional Questions In Environmental Matters	8
	Module 4: Administrative, Civil, And Criminal Enforcement Of Environmental Obligations	11
	Module 5: Providing Preventive Continuing Legal Advice On Environmental Corporation Issues To Clients.	12
	Module 6: Technical Training On Key Issues Of Physics, Chemistry, Biology and Geology.	13
References and Further Reading Material		14

Framework Model Curriculum On Continuing Legal Education In Environmental Law

I. About the Curriculum

This framework curriculum on continuing legal education in environmental law was developed through a consultative process led by a joint working group under the auspices of the International Bar Association and the United Nations Environment Programme. The close consultations between, and engagement of, the eminent members of the working group has helped to ensure that the content is responsive to the varied requirements of national bar associations and law societies, and of the different legal systems accross the globe. The joint and consultative approach has also helped to ensure a high level of coherence and consistency in the programmes to be delivered by different national bar associations and law societies.

The model curriculum is borne out of the recognition by the United Nations Environment Programme and the International Bar Association of the critical role of lawyers in the realization of the environmental dimension of sustainable development. The curriculum therefore seeks to equip practicing lawyers with the knowledge and skills to enable them to litigate effectively and provide advisory services in environmental law matters. It also seeks to keep lawyers informed of developments and emerging issues in the field of environmental law. The content of the curriculum will be delivered through face to face seminars, online/ distance learning methods, or both, depending on the particular circumstances of each national bar association. Implementation of the curriculum should, as much as practicably possible, be based on a training needs assessment conducted by the respective national bar association or law society. The programme should also have a mechanism for evaluation, and successful completion should lead to the certification or awarding of continuing professional development points.

II. Significance of the Framework Curriculum

While lawyers have a critical role in the development, implementation, and enforcement of environmental law, there has been very little effort directed towards developing their knowledge and skills to enable them litigate effectively and provide advisory services in relation to environmental protection. Previous United Nations Environment Programme initiatives to equip the justice sector with the relevant knowledge and skill sets have focused mainly on judges, prosecutors, and customs and environment enforcement officials, with little or no corresponding effort towards private legal practitioners. Consequently, the United Nations Environment Programme has partnered with the International Bar Association to develop a framework model curriculum to guide the training for lawyters on environmental law from a practical perspective. The overall objective of this curriculum is to therefore to :

- equip practicing lawyers with the knowledge and skills to allow them to litigate effectively and provide advisory services relating to environmental law; and
- to keep lawyers informed of developments and emerging issues in the field of environmental law.

The framework model curriculum will focus on developing the requisite skills and enhancing the knowledge of legal practitioners to enable them promote and implement effectively the environmental dimension of sustainable development.

The curriculum consists of six modules that can be delivered as a single programme, or as stand-alone modules:

Module 1. An overview of environmental and sustainability law, with particular attention given to the relationship between environmental law and UN sustainable development goals.

Module 2. Laws, regulations and agreements dealing with the protection and exploitation of natural resources, including the negotiation and drafting of natural resource exploitation agreements, in particular private agreements on minerals, energy and other natural resources.

Module 3. Access to information, public participation and access to justice (including alternative dispute resolution mechanisms and public interest litigation), judicial review, and constitutional questions in environmental matters. *Module 4.* Environmental enforcement from prosecution and defence perspectives, including criminal ones.

Module 5. Provision of anticipatory continuing legal advice on corporate compliance issues to clients, covering issues such as: obligations relating to prior consultation, the importance of social licences to operate, protecting the traditional knowledge of indigenous communities and land acquisition, requests for permits and licences, carrying out EIAs, requests for authorizations, reporting and disclosure obligations, corporate social responsibility, green supply chains, and all other matters related to ensuring ongoing compliance with environmental law.

Module 6. Technical training on the key aspects of physics, chemistry, biology, and geology relevant to environmental law practitioners (e.g. terminology related to energy sources, energy technologies, sources of pollution, toxicity, exposure assessment, margins of safety, risk assessment, pollution modeling instruments and measures).

III. How to Implement the Curriculum

While the United Nations Environment Programme and the International Bar Association agreed to produce a framework model curriculum on environmental law for practitioners that can be proposed to bar associations throughout the world as the basis from which to develop and execute programs adapted to national and local circumstances, it was agreed that it would be helpful if UNEP and the IBA were to conduct a few pilot projects, in collaboration with national bar associations, to learn useful lessons that may be incorporated more broadly. To that end, the details of the pilot projects will need to be developed, and will include the following elements as a bare minimum:

- Course structure and content in detail.
- Course format (face to face, online, or a combination of the two).
- Timing of the pilot.
- Faculty composition.
- Teaching methodologies.
- Evaluation system.

In addition, the national bars will adapt the content of the framework model curriculum to each specific jurisdiction. They will need to develop the format of the program in detail, as well as its evaluation mechanism, estimate pricing, and establish a timeline to run the programs. In doing this, they may count on the full support of the IBA and UNEP, within the boundaries of their technical capacity. They may also reach out to universities for further content and technical support.

THE CURRICULUM MODULES

MODULE 1: AN OVERVIEW OF ENVIRONMENTAL LAW

Description of the module

This module is designed for legal practitioners and newly admitted advocates/attorneys. The module will provide practical information on the sources, structure and compliance, and enforcement processes in national environmental laws. It will also focus on regulatory mechanisms commonly found in environmental laws to ensure compliance and enforcement.

Learning objectives

Participants will acquire a solid understanding of the application of environmental laws and obtain strong practical skills related to the more commonly encountered aspects of those laws.

On successful completion of this module, the legal practitioner will be able to:

- a. identify and explain the sources of environmental law;
- b. describe and explain the key principles and concepts common to environmental laws;
- c. apply practical legal tools used across a variety of legal systems, such as pollutant permits, attainment planning, bubbles offsets and trading, right to know (i.e. disclosure of pollution releases by individual sources as well as monitoring of ambient pollution levels), due diligence, regional coordination on pollution that crosses boundaries (at international, national and local levels);
- d. describe and explain the role, powers and functions of the key environmental enforcement institutions in their jurisdiction;
- e. describe and explain the compliance and enforcement mechanisms in their legal or regulatory framework; and
- f. understand and explain the liability and compensation regimes relating to environmental damage in their jurisdiction.

Focus Areas

1. Sources of environmental law:

- a. Constitutions.
- b. National laws.
- c. Regulations, norms and directives.
- d. Case law.
- e. International law (including international conventions, customary law, general principles of law, judicial decisions and writings of the most highly qualified publicists).
- f. Soft law.
- 2. Scope and content of environmental law including:
- a. Constitutional provisions.
- b. Framework and sectoral legislation.
- c. Regulatory mechanisms including licensing and permitting, criminal, civil and administrative sanctions, environmental impact assessments, strategic impact assessments and environmental audits, environmental planning and zoning, inspections, and other mechanisms such as economic or market based approaches.
- d. Environmental enforcement institutions, and criminal, civil and administrative sanctions.
- 3. Liability and compensation regimes for environmental clean-up.

MODULE 2: NEGOTIATION AND DRAFTING OF NATURAL RESOURCE AGREEMENTS, AND STUDY OF NATURAL RESOURCES LAWS AND REGULATIONS

Description of the module

Given the global increase in the demand for natural resources, including renewable natural resources and rising prices for agricultural commodities, many private enterprises are looking for untapped supplies of oil and minerals or large swathes of agricultural land to exploit. Resource extraction and large-scale agricultural projects are primarily governed by long-term contracts between natural resource companies and the governments of the countries in which they seek to operate, known as "host countries." These contracts can be complex and difficult to read, requiring knowledge of many areas of law and policy. The contracts also vary greatly among countries and industries, and it is virtually impossible to identify "best practices" because what might be beneficial in one country may not work well in another. Consequently, a lawyer may find it difficult to advise on whether a particular agreement represents a good deal for a host country and its citizens. This module will therefore seek to equip the legal practitioner with the knowledge and skills to negotiate and draft a natural resource exploitation contract.

Moreover, environmental safeguards on exploitation of natural resources are important even when the resource is not a government-owned concession, and thus this module also looks at laws and regulations addressing the protection and exploitation of natural resources.

Learning Objectives

On successful completion of this module, the legal practitioner will be able to:

- a. describe and apply the key principles and concepts common to natural resource exploitation laws and agreements;
- b. describe and explain key environmental obligations and rights of natural resource exploitation companies;
- c. describe common environmental risks in natural resource exploitation and identify mitigation measures; and

d. explain common environmental safeguards in a natural resource exploitation agreement.

Focus Areas

- 1. An introduction and overview of the relevant national law on natural resource exploitation.
- 2. Key environmental obligations and rights of natural resource exploitation companies.
- 3. Common legal risks in natural resource exploitation initiatives including:
 - a. annulment and cancellation of exploration or exploitation licenses/permits;
 - b. expropriation of proprietary rights of natural resource exploitation companies by the state; and
 - c. lawsuits specifically brought against projects.
- 4. Common environmental safeguards in a natural resource exploitation agreement.

MODULE 3: ACCESS TO ENVIRONMENTAL INFORMATION, PUBLIC PARTICIPATION AND ACCESS TO JUSTICE (INCLUDING ALTERNATIVE DISPUTE RESOLUTION MECHANISMS AND PUBLIC INTEREST LITIGATION), JUDICIAL REVIEW AND CONSTITUTIONAL QUESTIONS IN ENVIRONMENTAL MATTERS

This module consists of seven inter-related units described below.

A. Access to environmental information

Learning objectives

On successful completion of this unit, the legal practitioner will be able to:

> a. describe and explain the normative foundation underpinning access to information in environmental matters; and

b. describe and apply the principles, legal framework and procedural rules governing access to information in environmental matters in their jurisdiction.

B Public participation

Learning objectives

On successful completion of this unit, the legal practitioner will be able to:

- a. describe and explain the normative foundation and legal framework underpinning public participation in environmental decision-making; and
- b. describe and apply the legal principles, legal framework and procedural rules governing public participation in environmental decision making in their jurisdiction.

Focus areas

- 1. Legal framework on public participation in environmental decision-making and in particular in relation to the negotiation and execution of agreements/contracts.
- 2. Factors to be considered to ensure effective public participation, especially for marginalized communities and the most vulnerable groups.
- 3. Actio popularis (class actions).
- 4. Limitations to access including justiciability, ripeness, exhaustion, finality, political question and advisory opinions.

C. Access to Justice

Learning objectives

On successful completion of this unit, the legal practitioner will be able to:

- a. describe and explain the normative foundation and legal framework underpinning access to justice in environmental matters; and
- b. describe and apply the legal principles, legal framework and procedural rules governing access to justice in environmental matters in their jurisdiction including standing, actio popularis, and statutory limitations applicable to access to justice.

Focus areas

- 1. Actio popularis (class actions).
- 2. Limitations to access including justiciability, ripeness, exhaustion, finality, political questions and advisory opinions.

D. Judicial review

Increasingly, countries are enacting legislation giving parties aggrieved by the action or inaction of an administrative agency the right to bring their concern to the courts. Generally, this right is available to those immediately affected by the action, whether natural or legal persons. In the first case, individuals may be affected by breaches of rights to information or public participation, or may be affected by environmental damage in their health, property, or other rights. In the second case, companies may be adversely affected by a denial of a license, a newly promulgated agency regulation, or by the failure of an agency to act. A legal practitioner would therefore benefit from acquiring knowledge and skills relevant to challenging or defending the disputed (administrative) action.

Learning objectives

On successful completion of this unit, the legal practitioner will be able to:

- understand and explain the legal framework and jurisdiction of their national courts and tribunals to hear and determine judicial review matters relating to environmental protection;
- b. explain the statutory requirements for instituting a judicial review application relating to environmental protection;
- c. understand and explain the standard of review applicable (including for instance whether the court reviews the case on the merits or only considers the decision making process);
- d. understand and explain any applicable timeframe for review (for instance, is judicial review available only after all administrative remedies have been exhausted or must judicial review be sought within a certain timeframe after the disputed decision?); and
- e. explain the key remedies in judicial review matters in their jurisdiction.

Focus areas

- 1. Statutory requirements before instituting judicial review applications.
- 2. Standards of review of environmental management/protection decisions.
- 3. Timeframe for review.
- 4. Remedies in judicial review applications.

Public interest litigation

Public interest litigation or citizen suits can be undertaken in many jurisdictions by individuals and/or NGOs against polluters, whether this are private or public in nature, to force the adequate implementation of environmental legislation or to stop the activity of any person, including governments and governmental bodies or agencies, alleged to be in violation of any legal norm or regulation issued under the relevant legislation. A legal practitioner specializing in the area of environmental law may therefore wish to keep himself abreast of the key principles and procedures that apply to public interest litigation in environmental matters.

Learning objectives

On successful completion of this unit, the legal practitioner will be able to:

- a. understand and explain the legal framework and jurisdiction to hear and determine public interest litigation cases related to environmental protection;
- b. explain the statutory requirements before filing suit;
- c. describe and explain the application of *locus standi* requirements in their jurisdiction;
- understand and explain the legal framework and jurisdiction of their national courts and tribunals to hear and determine public interest litigation matters relating to environmental protection;
- e. describe and explain the key procedural steps in environmental public interest litigation in their jurisdiction; and
- f. describe and explain the available remedies in environmental public interest litigation matters in their jurisdiction.

Focus areas

- 1. Statutory requirements before filing suit such as "pre-suit notice".
- 2. Locus standi requirements.

- 3. Legal framework and jurisdiction to hear and determine public interest litigation cases related to environmental protection.
- 4. Remedies in environmental public interest litigation matters.

F. Alternative dispute resolution

In some jurisdictions, the judicial system may be rather inefficient for many reasons, including lack of capacity and resources. Even judicial systems in developed countries may not be agile enough to deal with potential environmental damage. In those situations, alternative dispute resolution (ADR) mechanisms could offer an effective and efficient avenue to achieve environmental protection. ADR mechanisms may be used in conflicts between a host country and a company, between two companies, or between a citizen and a company. Given the fact that this is a field in which practitioners could directly benefit from international experience (with little or no local law barriers) it deserves significant attention in the curriculum.

Learning objectives

On successful completion of this module, the legal practitioner will be able to:

- a. describe and explain ADR mechanisms;
- b. understand their pros and cons, in general and in specific jurisdictions;
- c. include effective ADR clauses in contracts; and
- d. display practical knowledge on how to handle ADR mechanisms.

Focus areas

- 1. What is ADR?
- 2. Types of ADR:
- a. Negotiation.
- b. Mediation.
- c. Conciliation.
- d. Arbitration.
- 3. Advantages and disadvantages of ADR.
- 4. Key elements of ADR.
- 5. Country specific examples.

Constitutional environmental matters

Several constitutions now contain provisions establishing environmental rights, or set forth governmental

duties to protect the environment and the state's natural resources. While the effect more often than not is of a symbolic nature, it remains a fact that more than 100 constitutions refer to the right to live in a clean and healthy environment, impose a duty on the state to prevent environmental harm, or mention the protection of the environment or natural resources. At the same time, references to constitutional environmental rights raise difficult questions of justiciability, remedies, and the scope and content of such rights. Hence, legal practitioners may wish to acquaint themselves with the constitutional environmental rights in their jurisdiction, as well as practices relating to their enforcement, in particular the relationship between constitutional rights and, for example, applicable legislation, standards and permits.

Learning objectives

Upon successful completion of this module, the legal practitioner will be able to:

- a. describe and explain constitutional environmental rights in their jurisdiction;
- b. understand and explain issues that affect whether constitutionally-recognized environmental rights are justiciable;
- c. describe and explain the principles governing standing, causes of action, timing and defenses, and presumptions about enforceability in their national jurisdictions; and
- d. describe and explain the remedies available for violations of constitutional environmental rights in their jurisdiction.

Focus areas

- 1. Constitutional environmental rights and obligations.
- 2. Justiciability of environmental rights.
- 3. Standing, causes of action, timing and defenses, and presumptions about enforceability.
- 4. Remedies for violations of constitutional environmental rights.

MODULE 4: ADMINISTRATIVE, CIVIL, AND CRIMINAL ENFORCEMENT OF ENVIRONMENTAL OBLIGATIONS

Description of the module

Extreme or willful environmental misconduct may be tackled through administrative, civil, or criminal proceedings. Increasingly, environmental violations are being dealt with through criminal law. This has led to an expansion of some of the basic concepts of criminal liability, and the extension of responsibility to corporate entities and their officers. This module therefore seeks to address the conditions under which corporations may be held liable, and the legal consequences for managers, employees, and the corporation itself. In addition, while enforcement actions and criminal prosecutions are most commonly brought by public authorities, many jurisdictions now allow citizen complaints to be filed by way of private prosecutions. As a result, issues of standing, standards of proof, i.e. negligence, strict liability, mens rea, and penalties are also addressed by the module. More broadly, national and sub-national governments are increasingly building compliance assurance systems to monitor and incentivize compliance. These systems can include a range of enforcement responses to enable detection of, and proportional response to, a wide variety of environmental violations.

Learning objectives

On successful completion of this module, the legal practitioner will be able to:

- a. explain the factors that should be taken into account when deciding what enforcement path to take, including whether to prosecute a violation as a crime;
- b. draft proper charges and defense strategies;
- c. explain the components of the criminal trial process;
- d. describe and explain the common defences available against an environmental criminal charge; and
- e. explain the factors to consider when prosecuting corporations.

Focus areas

- 1. Compliance assistance.
- 2. Detecting violations:
 - a. Monitoring requirements.
 - b. Record keeping requirements.
 - c. Reporting requirements.
 - d. Inspections.
- 1. Administrative enforcement.
- 2. Civil judicial enforcement.
- 3. Criminal enforcement:
 - a. Decision to prosecute and defenses.
 - b. Drafting the charge and the defense.
 - c. The trial process.
 - d. Common defence.
 - e. Prosecuting corporations.

MODULE 5: PROVIDING PREVENTIVE CONTINUING LEGAL ADVICE ON ENVIRONMENTAL CORPORATION ISSUES TO CLIENTS.

This module covers, among others, issues such as requests for permits and licences, carrying out EIAs, and requests for authorizations.

Learning objectives

On successful completion of this module, the legal practitioner will be able to:

- a. understand the basic rights and obligations that horizontal environmental legislation generates to potential clients;
- b. understand the basic rights and obligations that sectoral environmental legislation generates to potential clients;
- c. understand the main risks arising from environmental obligations, and ways to mitigate them;

- understand the fundamentals of compliance strategies, including their design, oversight, and take-up;
- e. negotiate, mediate, and arbitrate around environmental legal disputes;
- f. handle disputes and litigation, including issues of indemnity and warranty claims, third party civil actions, and manage disputes with regulators; and
- g. explain the key ethical issues surrounding the work of environmental lawyers.

Focus areas

- Ethical issues in the practice of environmental law, including the social aspects of environmental law, the importance of the social licence to operate, the protection of the traditional knowledge of indigenous or vulnerable communities, and issues regarding land acquisition.
- 2. Procedural law issues:
 - a. Regulatory, permit, and compliance issues.
 - b. Strategic and environmental impact assessments.
 - c. Environmental law enforcement.
 - d. Environmental disputes and litigation.
 - e. Environmental policy.
 - f. Transactional support on environmental risks and liabilities in mergers, acquisitions, disposals, financing projects, and JVs etc.
- 3. Substantive areas (the list is illustrative as different jurisdictions may wish to focus on different areas):
 - a. Pollution, including transboundary harm from pollution.
 - b. Solid waste management and recycling.
 - c. Hazardous waste management, liability, and clean-up.
 - d. Chemicals legislation.
 - e. Climate change and green technology.
 - f. Emissions trading.
 - g. Conservation and protection of nature and biodiversity.
 - h. Product regulation.
 - i. Contaminated land and environmental liability.
 - j. Corporate governance, disclosure and access to information.

- k. Private governance systems, corporate social responsibility, contractual provisions for assigning environmental liability, green labeling (FSC etc.), corporate environmental performance rating systems, environmental disclosure obligations under financial and corporate law (i.e. in relation to stakeholders), financial assurance requirements.
- I. Import/export controls.
- m. Emergency response.
- n. Crisis management.
- o. Supply chain risks.
- p. Investment law and fiduciary duties of directors to advise effectively on financial and investment operations.

MODULE 6: TECHNICAL TRAINING ON KEY ISSUES OF PHYSICS, CHEMISTRY, BIOLOGY AND GEOLOGY.

Examples could include a primer on environmental science or environmental economics, or content on energy, such as different energy sources, energy technologies, sources of pollution, instruments and measures.

Learning objectives

On successful completion of this module, the legal practitioner will be able to:

- Understand the key scientific, technological, and economic issues and terms necessary to perform effectively;
- b. effectively analyse and interpret data obtained from various sources;
- c. interview scientists to interpret that data;
- d. assist technical experts in appraising the costs of environmental protection strategies, as well as on the legal consequences of pollution or other environmental damages; and
- e. assess damages, and suggest remediative actions or compensation.

Focus Areas

1) Science:

a. The basic structure of each of the four "spheres" of the earth (hydrosphere, biosphere, geosphere, atmosphere).

- b. Sources of natural and anthropogenic derived contaminants.
- c. Dispersion of contaminants within and between "spheres".
- d. The principles and processes involved in global climate change and various models for predicting such change.
- e. Issues related to better understanding the exposure of humans to environmental pollutants, including the principles of toxicology such as thresholds and dose-response, the principles of exposure assessment, hazard v. risk, and risk assessment.
- f. Integrity and credibility of science in the courtroom, including an overview of concepts related to understanding scientific and statistical concepts for litigation.

2) Economic and technical issues:

- a. Market failures and externalities.
- b. Economic instruments (standard-based and market-based).
- c. Economic appraisals and cost-benefit analyses.
- d. Issues around risk and uncertainty.
- e. Best available techniques (not entailing excessive costs).
- f. Basic analysis of technological options for environmental protection, mitigation, and remediation.
- g. Technical and implementation related challenges.

3) Energy policy issues:

- a. Energy generation.
- b. Energy transportation, distribution, and consumption.
- c. The fundamentals of energy markets.

References and Further Reading Material

UNEP (2017) Judicial handbook on Environmental Constitutionalism available at: <u>www.</u> <u>unenvironment.org/resources/publications/</u> <u>judicial-handbook-environmental-constitutionalism</u>

UNEP (2005) Judicial Handbook on Environmental Law available at: <u>wedocs.unep.org/bitstream/</u> <u>handle/20.500.11822/8606/JUDICIAL_HBOOK_ENV_LAW.</u> pdf?sequence=3&%3BisAllowed=

UNEP (2006) Manual on Compliance with and Enforcement of Multilateral Environmental Agreements available at: <u>http://</u> wedocs.unep.org/bitstream/handle/20.500.11822/7458/-Manual%20on%20Compliance%20with%20and%20 Enforcement%20of%20Multilateral%20Environmental%20 Agreements-2006743.pdf?sequence=3&isAllowed=y

Xanthaki H. (2013). Thornton's Legislative Drafting 5th ed. Bloomsbury Professional Ltd.

UNEP (2007) Judicial Training Modules on Environmental Law.

UNEP (2006) Training Manual on International Environmental Law available at: <u>http://wedocs.unep.org/bitstream/</u> <u>handle/20.500.11822/20599/UNEP Training Manual Int</u> <u>Env Law.pdf?sequence=1&isAllowed=y</u>

ELAW (2013) Natural Resource Contracts: A Practical Guide available at: https://www.elaw.org/sites/default/files/.../ Natural Resource Contracts Guide.pdf

UN (1990) Basic Principles on the Role of Lawyers available at https://www.un.org/ruleoflaw/blog/document/ basic-principles-on-the-role-of-lawyers/

UNEP (2017) New Frontiers in Environmental Constitutionalism available at <u>https://wedocs.unep.org/</u> <u>bitstream/handle/20.500.11822/20766/judicial-handbook-</u> <u>environmental-constitutionalism.pdf?sequence=3</u>

PACE Elisabeth School of Law, Science for Environmental Laywers, https://law.pace.edu/courses/ science-environmental-lawyers

UN (i) environment programme

P.O Box 30552-00100 Nairobi, Kenya Tel: +254 20 762 1234 Email: publications@unenvironment.org www.unenvironment.org