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The Teaching of Environmental Ethics

Background Document

1. Introduction

The international community today faces various environmental challenges, like global climate change, degradation of the ecosphere, depletion of natural resources, growing waste, weakness of environmental management, natural disasters and environment-related hazards. The significance and urgency of environmental problems requires complex alterations in the higher education curriculum, including efforts in dilatation of Environmental Ethics and promoting it to become an integral component of general educational and professional training to stimulate and enforce environmental considerations at all levels of social and human activity, incorporate environmental concerns into national and local policies, ensure environmentally responsible business, and to transform human motivation and behavior. The need to promote Environmental Ethics in higher education and, broader, popular education is also determined by the lack of awareness among common people and many decision makers about the seriousness of current environmental risks.

The aim of this document as a working paper is to stimulate further discussions on the teaching of Environmental Ethics in order to prepare and develop a core curriculum in this discipline for higher education.

2. Background

Particular ethical issues related to the environment has been a matter of concern of COMEST since its establishment in 1997. COMEST developed different documents on ethical issues of freshwater resources, energy, outer space, and the precautionary principle.

In 2004–2006 a group of experts established by COMEST developed a policy document on environmental ethics, which was discussed at the Fourth (in Bangkok, Thailand) and the Fifth (Dakar, Senegal) Ordinary Sessions, as well as at an intermediary extraordinary session. For some reasons the policy document was not accepted officially, but it contributed substantially to understanding environmental ethics as a set of principles, specifically:

- Respect for all life, human and non-human,
- Respect for biodiversity
- Safeguarding the sustainability of the biosphere
- Environmental justice
- Precautionary principle
- Earth as global commons
- Rights of future generations
- Shared responsibility
- Contraction and convergence
- Principles about war and the environment

Whether this list of principles is complete and sufficiently systematized or not, is a subject for further discussion in regard to the task of developing a core curriculum on Environmental Ethics, but the very approach to environmental ethics as a kind of normative knowledge, focused on particular practices cannot be overestimated.

The most impressive in volume and depth document related to environmental ethics has been developed since July 2008 as a Report on the Ethics of Climate Change. In continuation of the previous policy document the Report mainly pays attention to “general and specific principles that could be adopted to form a basis

of responding” to “the central ethical issues that are brought about by global climate change”¹.

This report has been developed in response to an interest expressed by the General Conference of UNESCO in a strategy for action on climate change. It is worth pointing to UNESCO’s awareness that “without serious attention to the ethical implications of climate change, this Strategy for Action may not be as strong as it can be”.² Speaking particularly about the global climate change the Report represents the state of art in the field of Environmental Ethics in general, demonstrating the uncertainties and gaps in our understanding of the most significant environmental problems of the 21st century. The Report highlights the connection of the global climate change to human well-being, human dignity, and human rights and at the same time to the principles, owing to which ethics appears to be able to address the uncertainties of climate change. Besides general ethical principles, like: a) do not cause harm, b) contribute to the good of others, c) be nonviolent and just, d) be tolerant and respect the dignity of others, the Report specifies a number of principles, “already shared and accepted ... in the international arena that could ... be drawn upon to provide elements of a value basis for an ethics of climate change”:

- The precautionary principle.
- The principle of shared but differentiated responsibilities.
- The principle of safeguarding and promoting the interests of the present and future generations.
- The principle of protecting human rights.
- The principle of equitable access to medical, scientific and technological developments as well as the greatest possible flow and the rapid sharing of knowledge concerning those developments and the sharing of benefits, with particular attention to the needs of developing countries.
- Sustainability.³

Together with a range of international documents on the environment the principles specified in the Report could be developed into an ethical framework. But for this purpose they should be consolidated on a reliable ethical and metanormative basis.

In this respect another UNESCO experience related to the aim of this document deserves special mentioning. In 2005 the Division of Ethics of Science and Technology of UNESCO brought together a group of experts to develop a core curriculum in Bioethics. The first part of the Curriculum devoted to a Syllabus, was published in 2008; the second part devoted to Study Materials, is almost ready to be published later this year. The structure of the Curriculum is almost entirely congruous to the principles of the *Universal Declaration on Bioethics and Human Rights*; it was developed on the basis of the Declaration and referring to the principles of the Declaration. Though the Curriculum presents Bioethics as a normative discipline, it represents the main ideas, dilemmas, and the principal approaches in discussions on the topic. The core Bioethics problems are linked in the Curriculum either to principles, or to study materials. Such an approach allowed presenting the developing content of Bioethics in a form of guidelines for professional behavior.

3. The Key Environmental Challenges

¹ *Ethical Implications of Global Climate Change*: Draft 4 (31 May 2009), p. 4.

² Ibid.

³ Ibid, p. 23.

Teaching of Environmental Ethics is expected to respond to the main environmental challenges:

- Adaptation to climate change and possible mitigation of its effects.
- Increasing air and water pollution; growing emissions in the atmosphere.
- Loss of biodiversity.
- Degradation of water resources and soil.
- Deforestation.
- Waste and resource use.

4. What is Environmental Ethics?

In this document Environmental Ethics is understood as a research field and academic discipline, which focuses on principles and values regulating human relations towards nature, either as a whole or in its particular forms, the prerequisites and consequences of these relations, and theoretical, normative and practical issues related to them.

Environmental Ethics is deeply connected to the Environmental Sciences, on the one hand, and to moral philosophy and general normative ethics (in some of its versions), on the another. These are important epistemic resources for Environmental Ethics. Environmental ethicists need to understand environmental problems to be able to provide their ethical analyses. Environmental issues, like global climate change, air pollution, reduction of biodiversity and wilderness, desertification, etc., are practical issues and in so far as they have been produced mostly by unprecautious human activity, they cannot be solved by scientific and technological means only. Humans as individuals and communities should recognize their responsibilities to solve such problems and this may be possible only on the basis of a fundamental shift in their outlook and value attitudes towards nature. Environmental Ethics aims to clarify these responsibilities, the condition of their possibility, their value foundations and behavioral implications. For that reason Environmental Ethics is sometimes understood just as a kind of practical philosophy rather than merely a branch of applied ethics.

5. Teaching of Environmental Ethics

5.1. The Aim of Teaching Environmental Ethics

The main aim of the teaching of Environmental Ethics is to develop the students' ability to identify and analyze ethical issues in policies and actions related to environment, nature, and nonhuman forms of life in order to be able to make ethically correct decisions and to act ethically.

As a result of studying Environmental Ethics students should:

- increase their awareness of environmental-ethical issues;
- be able to provide ethical justification for decisions regarding the environment, nature, and nonhuman forms of life;
- be able to apply ethical principles to policies and actions related to the environment, nature, and nonhuman forms of life.

5.2. Target Groups

There is probably no specific target group for the teaching of Environmental Ethics in higher education. However, students majoring in environmental studies,

management, business, science, technology, journalism, and some fields of law may be primarily interest in courses in Environmental Ethics.

At the same time a core curriculum in Environmental Ethics should be designed in a way to be easily applied in various forms of education. It should also, for instance, make provision to be used in parts within the framework of teaching social sciences and humanities.

5.3. *Possible Approaches to Teaching Environmental Ethics*

As an overview of existing teaching programs in Environmental Ethics shows, different approaches may be followed in the course curriculum. In broad outline they differ in the mode in which the content of Environmental Ethics is interpreted: either by giving priority to a description of conceptions and theoretical platforms (anthropocentrism, biocentrism, ecocentrism, Land Ethics, ecofeminism), or through a representation of the principles of Environmental Ethics (respect for all life, respect for biodiversity, environmental justice, etc.), or through an analysis of particular environmental problems (air and water pollution, deforestation, animal rights, sport hunting, ecotourism, etc.). Certainly, a core curriculum should contain all three blocks of Environmental Ethics. However, an in-depth discussion of positions and approaches in Environmental Ethics seems to be more appropriate for students majoring in philosophy or political science. Environmental Ethics taught purposefully to be adapted to students' future professional activity should first of all provide students with a good understanding of the principles and the manner in which to apply them to practice in different situations. For the sake of clarity, practical principles should be tested on various cases related to different ethical problems of the environment.

Other topics like "Attitudes towards nature in different cultural traditions" or "Environmental issues in international documents" are often included into Environmental Ethics curricula, but it is better to reflect them in other teaching units .

6. Existing Experience in Promotion of Teaching Environmental Ethics

A number of initiatives have been undertaken in different parts of the world to promote Environmental Ethics teaching and education.

6.1 *"Environmental Ethics in Teaching Social Sciences and Humanities". An international project for university teachers from Belarus, Russia, Kyrgyzstan, Moldova, and Ukraine (<http://www.ecoethics.mrsu.ru/eng/>).*

A three year international project to promote the of teaching Environmental Ethics in higher education initiated by a team from Mordovia State University (Saransk City, Russia) and sponsored mainly by the Open Society Institute – Soros Foundation (2007–2010) has collected young university teachers from Belarus, Russia, Kyrgyzstan, Moldova, and Ukraine (with partial participation representatives from Lithuania) to create opportunities in curriculum development and improving the teaching of Environmental Ethics in their home universities. The project is based on annual two-week summer schools, three-day winter seminars and intersession virtual discussions during the academic year. International experts give lectures and master classes at the summer schools. Besides curriculum development participants are engaged in case-study analysis. Their interim achievements are also discussed at the project forum (<http://www.ecoethics.mrsu.ru/forum/>, in Russian).

The Second Summer School was organized together with the Center for Applied and Professional Ethics (Moscow, Russia) with the support of the UNESCO office in Moscow. One of the Seminar's particular tasks was to present the results of the UNESCO research and normative activity in the fields of environment preservation and Environmental Ethics, and how they were reflected in particular in a book, *Environmental Ethics and International Policy* (UNESCO, 2006). The book was represented at the Seminar by two of its several authors – Professors Holmes Rolston III and Johan Hattingh (<http://www.unesco.ru/eng/articles/2004/ampar15072008162937.php>)

6.2 *International Network of Environmental Ethics* (<http://www.econet.mrsu.ru/>, in Russian).

An International Network of Environmental Ethics, facilitated by the Center for Applied and Professional Ethics (Moscow, Russia) in collaboration with the above team from Mordovia State University and supported by the UNESCO Moscow Office has been developed since April 2009. The Network, which has already collected over 70 participants, is considered as an information resource for professional discussions, sharing of information and experience on the issues of Environmental Ethics. A collection of articles, *Ethics and Ecology*, is expected as one of the outputs of the Network. The book will be available at the end of the year.

6.3 *“Ecological Ethics in the System of Bioethical Education in Belarus”*.⁴

The project is aimed to support the system of continuous professional education in the Republic of Belarus in the field of Bioethics and Environmental Ethics. The first phase of the project has been successfully implemented. As a result of one-year of work on the project (2008):

- several educational programs and learning packs for university students were developed, together with the methodological recommendations on their integration into the national system of professional education;
- a number of training seminars on environmental ethics for University teachers have been organized;
- an educational manual for university students, *Basics of Environmental Ethics*, was published;
- a text-book for formal and non-formal school education, *Bio-ethics and Eco-ethics*, was published;
- a popular brochure, *Environmental Ethics from A to Z*, was produced;
- an information video on Environmental Ethics and Bioethics issues was created on DVD.
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More about these outputs can be read at: <http://www.unesco.ru/eng/articles/2004/ampar14012009131644.php>.

Within the second stage of the project (2009) the UNESCO Moscow Office is supporting the establishment of the Ecological Information and Education Centre in Volma (Minsk region, Belarus) and organizing a Seminar to launch the Centre and raise awareness on the materials developed in the framework of the Project.

6.4 *Environmental Ethics Teaching Materials and Trials in Asia-Pacific Region*

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⁴ According to UNESCO Moscow Office report by Ms. Alla Ampar.

⁵ Information provided by Dr. Darryl Macer, Regional Regional Adviser in Social and Human Sciences for Asia and the Pacific, UNESCO Bangkok.

Since 2005 there have been trials in many countries among the 47 member states of Asia-Pacific of environmental ethics teaching materials (and pedagogical methods) coordinated by the Regional Unit in Social and Human Sciences for Asia and the Pacific (RUSHSAP), UNESCO Bangkok⁶. In addition to the materials listed below, there are student and teacher evaluation forms available on the website:

<http://www.unescobkk.org/rushsap/ethics-resources/multilingual-material/>.

- A1. Making Choices, Diversity and Principles of Bioethics
- A2. Ethics in History and Love of Life
- A3. Moral Agents
- A4. Ethical Limits of Animal Use
- A5. Ethics and Nanotechnology
- B1. Ecology and Life
- B2. Biodiversity and Extinction
- B3. Ecological Ethics
- B4. Environmental Science
- B5. Environmental Economics
- B6. Sustainable Development
- B7. Cars and the Ethics of Costs and Benefits
- B8. The Energy Crisis and the Environment
- B9. Ecotourism
- B10. The Earth Charter

In 2006 a Joint Plan of Action for Regional Networking in Bioethics Education Towards Better Bioethics Education was adopted by the participants at the UNESCO Asia-Pacific Conference on Bioethics Education, held 26-28 July 2006 in Seoul, Republic of Korea, together with other members of the UNESCO Asia-Pacific School of Ethics. It includes a number of issues in environmental ethics, since the view of the regional experts is that the term “Bioethics” includes environmental ethics. The action plan and some of the materials are available in several languages, including English, Chinese, Indonesian, Japanese, Khmer, Korean, Thai, Urdu, and Vietnamese. The materials (and additional teaching resources and teacher references), are available in MS Word format for users to modify for local needs, and they were developed by authors in Asia and the Pacific region.

6.5 Educational frameworks for environmental ethics Working Group in Asia and the Pacific.⁷

The Regional Unit in Social and Human Sciences in Asia and the Pacific (RUSHSAP) launched the Ethics of Energy Technologies in Asia and the Pacific Project (EETAP) in September 2007 in Bangkok.⁸ At this conference 15 working groups were established including one on “Educational frameworks for environmental ethics”. The working group is building upon two publications of UNESCO Bangkok that were compiled on earlier consultations on environmental ethics and ethics education in the region⁹, to produce a report with policy options

⁶ Rushsap website: <http://www.unescobkk.org/rushsap>.

⁷ Information provided by Dr. Darryl Macer.

⁸ <http://www.unescobkk.org/rushsap/energyethics/>

⁹ Macer, Darryl RJ, ed. *Asia-Pacific Perspectives on Environmental Ethics*, Bangkok: UNESCO Bangkok, 2008. vi + 108 pp. ISBN 978-92-9223-218-4 (Electronic version)

Macer, Darryl, ed. *Asia-Pacific Perspectives on Bioethics Education* Bangkok: UNESCO Bangkok, 2008. v + 195 pp. ISBN 978-92-9223-221-4 (Electronic version)

for the governments of member countries and other institutions. Since 2007 there have been a number of subsequent conferences and working group sessions organized in different countries in the region. The report is expected to be completed in the second half of 2009, including a regional survey of environmental ethics teaching programs and resources.

6.6 UNESCO Regional Workshop on Environmental Ethics¹⁰.

A workshop consisting of experts from South Africa, Benin, Côte d'Ivoire, Gambia, Ghana, Ethiopia, France, Guinea, Nigeria, Senegal and Togo have taken place in Lomé, Togo from 26–28 March 2009 to encourage the reinforcement of teaching of environmental ethics in higher education.

This workshop was devoted specifically to the teaching of environmental ethics, the role of which is to identify, clarify and teach the moral values that must guide environmental and social actions. At this workshop, it was emphasized that the teaching of environmental ethics must also take into account the environmental issues caused, for example, by climate change and the increasing pressure on biodiversity and vulnerable socio-economic systems. It was also confirmed that research and higher education are efficient tools for identifying, clarifying and teaching these values with a view to promoting environmentally sustainable socio-economic development.

During the Workshop:

- UNESCO's actions in the field of environmental ethics were presented;
- The existing environmental ethics training programs in the countries mentioned above were described;
- The framework for program development in the LMD (Bachelor-Masters-Doctorate) system was reflected.

ANNEXES

Annex 1. Examples of Existing Curricula in Environmental Ethics:

1.1 "Environmental Ethics", Lancaster University, UK), (2006–2007)¹¹.

Course Outline:

- 1: Introduction
- 2: Utilitarianism and well-being
- 3: Consequentialism and environmental value
- 4: Incommensurability and Value Pluralism
- 5: The moral considerability of the non-human world
- 6: Environmental Ethics, Holism and Animal Ethics
- 7: The Intrinsic Value of Nature - meta-ethics
- 8: The value of Nature
- 9: The value of wilderness
- 10: Feminism and ecology

¹⁰ According to UNESCO official information, http://portal.unesco.org/shs/en/ev.php-URL_ID=12703&URL_DO=DO_TOPIC&URL_SECTION=201.html.

¹¹ <http://www.lancs.ac.uk/depts/philosophy/awaymave/403new/home.htm>.

1.2 “Environmental Ethics”, Lancaster University, UK, (2005–2006)¹².

Course Outline:

- 1: Introduction to Environmental Ethics
 - Environmental Ethics in Context
 - Defining Environmental Ethics
 - A Brief History
 - Questions about Value
 - Anthropocentric approaches
- 2: Individualist Approaches to Environmental Ethics
 - Mapping Individualism in Environmental Ethics
 - Singer's Utilitarianism
 - Animals and Rights
 - Valuing all living organisms
- 3: Holistic Environmental Ethics
 - What is "holistic environmental ethics"?
 - Leopold: A Sand County Almanac
 - The animal liberation/ environmental ethics debate
 - Individualist Responses to Holism in Environmental Ethics
 - Ecosystems writ large: the Gaia hypothesis
 - Reconciling Positions
- 4: Deep Ecology and Ecofeminism
 - Deep Ecology: an introduction
 - Deep Ecology and Metaphysics/Consciousness
 - Deep Ecology and Ethics
 - Deep Ecology as a Political Movement
 - Ecofeminism
 - Ecofeminism's Critique of 'mainstream' Environmental Ethics
 - Ecofeminist Approaches to Environmental Ethics
- 5: Two Issues in Environmental Ethics: The Wilderness and the Urban
 - Wilderness
 - Wilderness: from negative to positive
 - Wilderness and Environmental Ethics
 - The Urban Situation
 - Urban Environmental Ethics
 - An Urban Environmental Issue: Car driving

1.3 “Environment & Values”, by Dr. Bron Taylor, The University of Wisconsin, USA¹³.

Course Outline:

- 1: Applied Ethics & the Fallacies of Ethical Reasoning
 - What are the historical causes of environmental decline?
 - Can environmental degradation be traced to Western cultural roots?
 - Is Anthropocentrism an adequate resource for environmental ethics?
 - What is the nature of nature, and how are humans related to it?

¹² <http://www.lancs.ac.uk/depts/philosophy/awaymave/403/403home.htm>.

¹³ http://www.religionandnature.com/bron/courses/uw/es-env_ethics_slybus.pdf.

- 2: Mainstreams of Ethics: the Strengths and Weaknesses of Normative Theories based on Rights or Justice or Utility.
 - Individualism: Who is morally considerable?
 - Does individualism provide a basis for “hard cases” in environmental ethics?
 - What are the weaknesses and strengths of individualistic environmental ethics?

- 3: Holism versus Individualism in Environmental Ethics
 - Biocentrism/Ecocentrism and the Land Ethic. Is Holism a form of utilitarian eco-fascism?
 - What are the strengths and weaknesses of holistic versus individualistic environmental ethics?
 - Can Animal Liberation and Environmental Ethics fit?
 - Hunting Whales in Washington and Pigs in Hawaii

- 4: The moral extension of Liberalism's “rights” to nature
 - Applying notions like “rights” and perceptions of “beauty” in Environmental Ethics

- 5: Religious Environmental Ethics
 - Can Monotheism be green?
 - Indigenous Worldviews and Environmental Ethics
 - Environmentalist & Native alliances in environmental conflicts

- 6: Ecofeminism and the “Logic of Domination”
 - What is the “logic of domination” that ecofeminists critique?
 - How are women and nature linked, and how does this impact them both?
 - Is this a “natural” or “cultural” phenomenon?
 - What is the implication of such theory for environmental activism?
 - Is Ecofeminism plausible/compelling?

- 7: Ecological Resistance Movements B Environmental Action and Environmental Ethics,
 - Indigenous and Peasant movements.
 - Environmental Justice Movements in the United States.
 - Resisting Deforestation in Amazonia. Liberationist Christianity and eco-resistance

- 8: Commons Regimes and the Process of Enclosure
 - Are commons regimes “tragedies” to be overturned in favor of private property regimes, or rather, should we defend and emulate those that exist, and restore those that have been overturned by the extension of market capitalism through the “enclosure” process?
 - The Zapatistas of Mexico: Can insurrection ever be justified in environment-related social struggles?

- 9: Public Policy and Forest Management: Learning to see the forest and the trees.
 - Integrating Principles of Conservation Biology and the best of Bioregional Thought into Contemporary Wildlands Management.

- 10: Public Policy and Forest Management: Learning to see the forest and the trees
 - Are the means justified by the ends? (A perennial problem applied to environmental issues.)

- Utopian alternatives: Bioregionalism and Revolutionary Ecology.
- How do we evaluate the ethics of civil disobedience and ecotage?
- What are the results of such tactics?
- Are the ethics to be judged by the ends pursued, or by other moral standards, or both?
- Can there be a just environmental war or insurgency, or a permissible citizen defense of declared bioregional “liberated zones”?
- Or should we work toward consensus-based decision making among all stakeholders, including those who are traditionally adversaries?

1.4 *“Environmental Ethics”, by Professor Alan Carter, University of Colorado. Boulder, USA, (2003)*¹⁴

- 1: Introduction: Some Basic Ethical Theory
- 2: Overview of Environmentalist Positions
- 3: Future Generations
- 4: The Non-Identity Problem
- 5: Optimum Population
- 6: The Mere Addition Paradox
- 7: World Hunger and International Aid
- 8: Starvation, Rights, Acts and Omissions
- 9: Lifeboat Ethics
- 10: Global Inequality
- 11: Animal Liberation
- 12: Animal Rights
- 13: Interspecies “Justice”
- 14: Legal Standing for Natural Objects?
- 15: Biocentrism
- 16: Inegalitarian Biocentric Approaches
- 17: Why Preserve Species?
- 18: Giving Species Priority
- 19: The Land Ethic
- 20: Ecocentrism and Animal Welfare
- 21: Subjectivism or Intrinsic Value?
- 22: Weak Anthropocentrism/Moral Pluralism
- 23: Deep Ecology
- 24: Social Ecology
- 25: Ecofeminism
- 26: Wildness and Wilderness
- 27: A View From the Third World
- 28: Environmental Justice
- 29: Sustainability
- 30: Foundations of Environmental Economics
- 31: Philosophical Roots of Present Attitudes
- 32: Which Tactics Are Morally Permissible?

1.5 *“Environmental Ethics”, by Professor Johan Hattingh, Stellenbosch University, Stellenbosch, South Africa (2009)*

- 1: Different philosophical models for the conceptualisation of environmental problems;

¹⁴ <http://spot.colorado.edu/~cartera>.

- 2: Different approaches to environmental ethics (for example, strong anthropocentrism, weak anthropocentrism, stewardship, animal rights, animal liberation, biocentric individualism, biocentric holism, ecocentrism, deep ecology, ecofeminism, social ecology, bioregionalism and environmental pragmatism);
- 3: Environmental ethical values and principles, for example sustainability, precaution, ecological integrity;
- 4: The relationship between environmental ethical values and other values like economics, efficiency, freedom, equality and justice;
- 5: The implications of environmental ethical values and principles for environmental policy and management;
- 6: The implementation of environmental ethical values in politics, economics and everyday life;
- 7: The ethical basis of environmental conflict resolution;
- 8: The ethical basis of environmental policy and management in a developing country;
- 9: The ethical implications of risk and ignorance;

1.6 *“Seminar in Environmental Ethics”, by Dr. Workineh Kelbessa, Addis Ababa University, Addis Ababa, Ethiopia (MA Programme) (2009)*

Introduction

- Brief Introduction to Major Ethical Theories, both Western and non Western
- What is Environmental Ethics?
- Environmental Ethics Under Attack

1. The Environment in Western Thought
2. Markets and the Natural Environment
 - 2.1. Free Markets and Environmental Well-Being
 - 2.2. Public Goods, Externalities, and Government Coercion
 - 2.3. Trading Pollution Permits
3. African Philosophy and the Environment
 - 3.1. African Environmental History
 - 3.2. African Approaches to Environmental Stress
 - 3.3. African World Views and Environment
 - 3.4. African Cultures and Environmental Ethics
 - 3.5. Environmental Education in Africa
4. Focusing on Central Issues: Sustaining, Restoring, Preserving Nature
 - 4.1. Is Sustainability Possible?
 - 4.2. Sustainable Development and Liberal Democracy
 - 4.2. Can and Ought We Restore Nature?
 - 4.3. Should We Preserve Wilderness?
5. Human Social Issues and the Environment
6. Environmental Justice
7. Post-modern Environmental Ethics
8. Environmental Ethics and Policy
 - 8.1. Application of Ethics to Environmental Policy
 - 8.1. Cost-Benefit Analysis and Environmental Policy
 - 8.2. Environmental Policy in Africa

9. Developing Our Own Environmental Ethics – Student Reports

Annex 2. International Centers for Environmental Ethics:

- Center For Environmental Philosophy, <http://www.cep.unt.edu/>.
- Eco-Ethics International Union, (EEIU), <http://www.eei.org/chapters/nigeriamushin/index.html>.
- Environmental Ethics Syllabus Project, <http://www.appliedphilosophy.org/syllabusproject/>.
- Ethics in Science and Environmental Politics (ESEP), <http://www.int-res.com/journals/esep/>.
- International Society for Environmental Philosophy (IAEP), <http://www.environmentalphilosophy.org/>.
- International Society of Environmental Ethics (ISEE), <http://www.cep.unt.edu/ISEE.html>.

Annex 3. Selected Internet Resources:

- Catholic Social Teaching and Environmental Ethics, <http://www.webofcreation.org/DenominationalStatements/catholic.htm>.
- Environmental Ethics Resource Center, <http://www.ecoethics.mrsu.ru/eng/arts/>.
- Environmental Ethics, <http://online.sfsu.edu/~rone/Environ/Enviroethics.htm>.
- Ethics and the Environment, <http://www.phil.uga.edu/eande/>.
- Teaching Desirable Environmental Ethics and Action through School Activities, http://findarticles.com/p/articles/mi_pric/is_198900/ai_3119305224/.
- Teaching Environmental Values, <http://www.cceia.org/resources/transcripts/1012.html>.
- The Earth Charter Initiative, <http://www.earthcharterinaction.org/content/>.
- UNESCO Bangkok Environmental Ethics Teaching Materials, <http://www.unescobkk.org/rushsap/ethics-resources/multilingual-material/>.

Annex 4: Proposals for international action in the field of environmental ethics:

Introduction

1.1 General framework of international declarations and UN activities.

There have been numerous international actions and declarations to protect and sustain the environment in the second half of the 20th century. Some of the most important are mentioned here. None of them specifically addresses the moral dimensions of environmental problems.

1.1.1 International law and declarations

The Convention on Biodiversity, agreed upon by 188 countries at the United Nations Conference on Environment and Development, in Rio de Janeiro, Brazil, in 1992 has been ratified to date by 158 countries. It refers to the intrinsic value of biological diversity and claims that States have the right to pursue their own environmental policy and the responsibility not to cause damage to the environment of other states. Its secretariat is hosted by UNEP (United Nations Environmental Programme).

The Rio Declaration on Environment and Development (United Nations Conference on Environment and Development, Rio de Janeiro 1992) lists a number of environmental principles, including those set out in the Convention on Biodiversity.

The Declaration on Science and the Use of Scientific Knowledge and The Science Agenda Framework for Action, issued by the World Conference on Science, Budapest 1999 called for UNESCO action in environmental ethics and education concerning the environment.

The Report of the World Summit on Sustainable Development (Johannesburg, 2002) gave UNESCO a mandate for environmental ethics and education.

1.1.2 United Nations Declarations and Resolutions

The World Charter for Nature (1982) affirms that nature shall be respected.

The United Nations Framework Convention on Climate Change (1992) commits State Parties to the protection of the climate system for present and future generations, with an equitable share of the burden between countries.

In the Millennium Declaration, (2000) the seventh goal is “to ensure environmental sustainability”.

In addition, a number of United Nations General Assembly resolutions for the protection of the global climate have been adopted since 1990.

The Convention on the Protection of the World Cultural and Natural Heritage (1972) refers to the need of safeguarding our natural heritage. The Declaration on the Responsibilities of the Present Generations towards Future Generations (1997) proclaims that (Art.1): “present generations have the responsibility of ensuring that the needs and interests of present and future generations are fully safeguarded.”

The 32nd General Conference (2003) invited the Director General “to consider how best to reinforce, in a practical manner, the vision and principles of the Earth Charter in UNESCO programmes, and to submit proposals thereon to the Executive Board.”

The Executive Board of UNESCO adopted at its 169th session in April 2004 a decision requesting the Director General of UNESCO to “keep it informed of the studies undertaken to examine the principles of environmental ethics and to identify possible international actions in this field”.

1.1.4 Other initiatives of relevance

The Earth Charter (2000) is an international nongovernmental declaration on environmental issues that has been either endorsed or supported by a number of NGOs and IGOs including UNESCO (see 1.1.3). It proposes “Values and principles for a sustainable future”.

1.2 UNESCO, COMEST and the ethics of the environment

The 29th session (1997) of the General Conference of UNESCO approved the creation of the World Commission on the Ethics of Scientific Knowledge and Technology (COMEST). The establishment of this body reflects the increasing importance of ethical reflection in the light of the cultural and social effects of the rapid development of scientific knowledge and technology.

Since its start, COMEST has been active in several areas of moral concern: fresh water, outer space, energy, and information society. More recently, the Commission focused more explicitly on environmental ethics. A working group on the Precautionary Principle was established in 2003. Its report was adopted by the fourth ordinary COMEST session (March 2005).

UNESCO and COMEST have been invited to study and take action on environmental ethics on several occasions: at the World Conference on Science in Budapest (1999); in the Millennium Declaration of the United Nations (2000); and at the World Summit for Sustainable Development of Johannesburg (2002).

1.3 Exploration of possibilities for international action in the field of environmental ethics

In order to explore what will be the opportunities to undertake actions in the Member States of UNESCO, it is first necessary to analyse the state of the art in environmental ethics.

To that end, the Division of Ethics of Science and Technology has developed a three step strategy. As a first step, environmental ethicists were invited to determine the moral dimensions of environmental problems and to make proposals for international actions.

The next two steps are: consultation with the scientific and policymaking communities. The reason for this approach is to ensure that specifically moral dimensions are properly addressed, thus following the ethical mandate, of UNESCO and COMEST.

1.4 The group of experts on environmental ethics

The first stage of this strategy was to set up a group of ethics experts¹. They were invited to address two questions:

- What is the “state-of-the art” in environmental ethics (in particular what are areas of consensus and major dissent), and
 - What are the possibilities for international action for UNESCO in this field?
- The group met in Paris, France, on 23 and 24 September 2004, and in New Orleans, USA, on 18 and 19 November 2004. The output of this group is twofold. On the one hand, each member of the group wrote a paper and discussed it with his/her colleagues. These papers are brought together in a book². On the other hand, the ethicists have proposed possible actions for UNESCO, which served as a basis for the elaboration of the present document by COMEST.

1.5 Aim and structure of the present document

Proposals in this document are made by COMEST and are intended as a starting point for consultations, in order to assess the feasibility, opportunity and urgency of these proposals. They have been discussed in the fourth ordinary session of COMEST in Bangkok (23-25 March 2006), written comments of COMEST members have been incorporated by the Bureau at its meeting held in Paris on 6-7 February 2006 and will be finalized by the Commission in its extraordinary meeting in Paris on 26-27 June 2006. Following the consultation process in 2006-2007, COMEST will finalize its advice to the Director General of UNESCO during its fifth ordinary session to be held in Africa in the Spring of 2007. This advice may be submitted to the 34th General Conference of UNESCO (Fall 2007).

The proposals for international action are classified in three parts.

- Proposals for normative action,
- Proposals for capacity-building,
- Proposals to raise awareness.

1.6 Environmental ethics

For the purposes of this document, a distinction is made between a more theoretical and a more practical task of environmental ethics. The theoretical task consists in the study of normative issues and principles relating to human interactions with the environment, and to their context and consequences. The practical task consists in formulating and using principles and rules concerning human actions.

¹ See composition of the group in the Annex: the Group of Experts on Environmental Ethics ² Environmental ethics and international policy, series on Ethics of Science and Technology, UNESCO 2006 (translations in the five other official languages of UNESCO to be published: Arabic, Chinese, French, Russian, Spanish)

Proposals for normative action

Different types of normative action are possible: a declaration of ethical principles on environmental ethics, implementation principles and other normative actions, that can either be seen as application of the principles (if a declaration is adopted), or be adopted separately.

2.1 Principles of environmental ethics

A declaration of ethical principles may include the following principles that, according to the experts, are qualified to obtain international consensus. Whereas this set of principles does have consistency, each of the principles proposed below may be adopted individually. How an ethical principle is implemented depends on its interpretation. This interpretation is based on scientific considerations but also public debate and a political process. There can be an agreement on the principles but divergences on their interpretation, as is usual in international public law.

For instance, the principle of respect for life may or may not be interpreted as prohibiting abortion. However, the proclamation of the right to life in the European Constitution was never interpreted in this sense.

2.1.1 Respect for all life, human and non-human

In the theoretical debates of environmental ethics, a major controversy is whether nonhuman life forms can have a value of their own or whether their moral value lies only in their usefulness for human beings. In practice however, the dominant thinking in environmental protection (as reflected for example in the Report of the Johannesburg World Summit on Sustainable Development of 2002 and the Rio Declaration on Environment and Development of 1992) does focus on the usefulness of all living beings for human beings (the “anthropocentric” view). But it is often argued that the current environmental degradation proves that this view is in practice insufficient to protect the environment, regardless of its theoretical status. It is therefore proposed to consider the recognition of a principle that would grant some moral consideration to life forms and living beings independently of their usefulness for human beings. It could be formulated as follows:

Every form of life should be respected, regardless of its utility to human beings.

Respect for life is distinct from some interpretations of intrinsic value and from right to life. This principle does indeed not mean that all living beings have the unconditional right to live, or that they are of equal value. On the contrary, experts agree that the recognition of this principle implies in practice making necessary choices between different forms of living beings (e.g. it is ethically right to kill the smallpox virus for the benefit of humankind. More generally, respect for life cannot be opposed to practices that are preconditions for the survival of human beings such as sustainable agriculture or medicine).

A practical implementation of this principle of respect for life is proposed in paragraph 2.2.3.

2.1.2 Respect for Biodiversity

There was consensus that, prior to any normative action on the matter, further

work must be undertaken to refine the understanding and range of biodiversity (see propositions for capacity building 3.2 and 3.5). The measures of biodiversity, and accordingly the ecological assessment of biodiversity, differ widely. Yet there was a consensus that any definition should state that the world is enriched by the diversity of species.

Respect for biodiversity may not lead to the same practical implications as respect for life (2.1.1), since respect for biodiversity does not necessarily involve respect for individual beings, and conversely, emphasizing the primacy of individual beings may threaten biodiversity.

2.1.3 Safeguarding the sustainability of the biosphere

The planet as a biosphere is vulnerable, and its safeguarding is probably more important than the preservation of any single individual, species or ecosystem.

The principle of sustainability of the biosphere could be proclaimed. In the long run, it could even be made one of the main missions of the United Nations Organizations.

2.1.4 Principle of environmental justice

The wording of principle(s) of environmental justice needs further study and refinement. However, the following tentative formula can be proposed as a starting point:

Every human (present or future) has a right to an environment that is conducive to his/her health and wellbeing, and also a responsibility towards environmental protection. That right as well as this duty should be shared in an equitable way.

Studies show that the consequences of environmental degradation are often borne disproportionately by disadvantaged groups, and this happens both within and across countries.

2.1.5 Precautionary principle

The precautionary principle seems to be susceptible of consensus but need better understanding. However, bringing together the work of the group of experts on the precautionary principle (who have explored the understanding of the principle) and the group of experts on environmental ethics, the following wording may be proposed:

When human activities may lead to morally unacceptable harm that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm.

Morally unacceptable harm refers to harm to humans, other living beings³, or the environment that is :

- Threatening to human life or health or:
- Serious and effectively irreversible or:
- Inequitable to present or future generations or:
- Imposed without adequate consideration of the fundamental rights of those affected.

The judgment of plausibility should be grounded in scientific analysis. Analysis should be ongoing so that chosen actions are subject to review.

Uncertainty may apply to but need not be limited to, the causes of the possible harm.

Actions are interventions that are undertaken before harm occurs that seek to avoid or diminish the harm. Actions should be chosen that are proportional to the seriousness of the potential harm, with consideration of their positive and negative consequences, and with an assessment of the moral implications of both action and inaction. The choice of action should be the result of a participatory process.

The Precautionary Principle is mentioned in the 1992 Rio Declaration and the World Conference on Science in Budapest (1999). Where the Precautionary Principle is invoked because there is reason to believe that there is a risk of irreversible damage to a natural system, the action to be taken should be tailored to objectively foreseeable consequences both for nature and for society, without the need to have a further debate about whether nature is vulnerable or resilient enough to recover in any case. Global warming is an important case to which this idea may be applied.

Human activities increasingly have an irreversible impact on the environment and this impact is increasingly uncertain. Hence the relevancy and applicability of the principle is more and more manifest.

2.1.6 Principle of the earth as global commons

UNESCO could promote the consideration of Earth as a whole, including renewable and non-renewable resources, as global commons. In other words, it could be proclaimed that there is a shared responsibility of all human beings as regards natural resources and the environment, and that the depletion of resources impacts on all human beings, present and future.

However, it does not seem feasible to proclaim national resources as common heritage of mankind in the legal sense, which would make an international agreement necessary prior to any exploitation of such resources. On the contrary, recent developments such as the Rio Declaration on Environment and Development of 1992 rather tend to acknowledge environmental national sovereignty. The ethical idea of a common moral responsibility towards the Earth as a whole, including natural resources, could nevertheless be promoted and proclaimed.

2.2 Implementation principles

The following actions may be presented as implementation of the above principles, or could also be adopted as practical moral imperatives.

³ "other living beings" is an addition of the group of experts on environmental ethics ⁴ Except for the phrase "other living beings"; this definition has been adopted by COMEST and is quoted from the COMEST report The precautionary principle, UNESCO, March 2005

The rights of future generations have already been referred to in a number of international instruments such as the Convention of the Protection of the World Cultural and Natural Heritages (UNESCO 1972), the Rio Declaration (1992), the resolutions of the UN General Assembly relating to the protection of the global climate adopted since 1990, or the Declaration on the Responsibilities of the Present Generations towards Future Generations (UNESCO 1997).

Among principles of environmental ethics, UNESCO could consider recognizing again the needs of future generations, human or nonhuman. It may also specify what these needs are, and whether they are strictly identical to those of present generations, as regards environmental issues. It could specify some basic needs of future generations such as enhanced planning of provision for the needs of the global population for food and fresh water.

A possible wording of the principle is the following:

The scope of ethical concern also extends towards future life.

Such a principle may be seen as a consequence of the principle of environmental justice.

2.2.2 Environmental ethics as a shared responsibility

A consequence of the principle of natural resources as global commons may be that ethical concern for the environment is a shared responsibility, and should not be delegated to any organization or group alone.

2.2.3 Practical implication of respect for life

A practical implication of the principle of respect for life and the Precautionary Principle may be the ethical principle of the "burden of proof". A possible wording is proposed:

Since human beings ought not to endanger the environment without overriding justification, in ethical terms, the burden-of-proof should lie with those who commit action that endangers living beings or the environment.

2.2.4 Principle of contraction and convergence

The principle of contraction and convergence refers to the emission of gases contributing to the greenhouse effect. A fair and pragmatic approach, it is argued, would be to move gradually towards quotas that would not be indexed on GDP, as is the case in the Kyoto protocol, but rather on population, while gradually reducing the permitted total towards the 60% reduction commended by the Intergovernmental Panel on Climate Change (IPCC).

Such a principle may be seen as a consequence of both the principles of environmental justice (see 2.1.4) and the principles of earth as global commons (see 2.1.6).

2.2.5 Principles about war and the environment

The development of peace could be seen as an important condition of the conservation of the environment, and war as a major threat to the environment.

2.3 Other normative actions

2.3.1 A code of conduct for scientists

The environment is not only the problem of the international community or of environmentalists and environmental ethicists. As several of the main challenges to the environment are linked to scientific developments, it may be relevant to develop a code of conduct for scientists, which would include a wide concern for the environment. Such initiative may be merged with the reflection currently pursued by UNESCO on the issue of science ethics, which was originally mostly concerned with security and the fight against terrorism, but may also incorporate environmental ethical concerns.

Such an initiative may be seen as an application of the principle of natural resources as global commons and the principle of shared responsibility (see 2.1.6 and 2.2.2).

2.3.2 Declaration on ethics education

The international community may be willing to proclaim the necessity to move towards a mandatory ethical education for scientists, aiming at giving scientists and engineers better awareness of the environmental and social impact of their work. This initiative may find its place in the Ethics Education Programme (EEP) of UNESCO (see 3.4)

The Tblisi Declaration may be a starting point for such a declaration. It was adopted in 1977 at the Inter-Governmental Conference on Environmental Education organized by UNESCO in cooperation with UNEP. The declaration noted the unanimous accord in the important role of environmental education in the preservation and improvement of the world's environment, as well as in the sound and balanced development of the world's communities.

Such a declaration may be seen as an application of the principle of natural resources as global commons and of the principle of shared responsibility (see 2.1.6 and 2.2.2).

Proposals for capacity-building

3.1 Setting up national and international environmental ethics committees

Following the model of bioethics committees, the creation of national and international environmental ethics committees could be promoted. Such committees would give advice on ethical issues related to the environment. Such diverse initiatives as law making, policymaking, research projects and industrial projects may raise environmental ethics issues, in which advice of a committee would be welcome. It is clear that several types of environmental committees may be promoted.

One proposal is to create a World Committee of Environmental Ethics (WCEE) and National Committees of Environmental Ethics (NCEE). The members of the Committees should include scholars, teachers, citizens, and representatives of environmental NGOs. Their mission would be to evaluate major policies, important projects with huge impacts on the environment, and the environmental situation of the country from the perspectives of environmental ethics.

3.2 Developing systems for complexity management and interdisciplinary studies

One of the difficulties that environmental ethics and environmental considerations in general face is the unclear assessment of the impact of human activities on the environment. While full predictability is not achievable, progress can be made for specific cases rather than theoretical studies by further developing interdisciplinary studies. This would facilitate the development of strategic environmental analysis. In that regard, scientific capacities need to be built, and it may fall within the scientific mandate of UNESCO to facilitate the development of such systems for environmental predictability in a wide intersectorial collaboration.

3.3 Developing cooperation with international, regional and national organizations

UNESCO could promote international and regional cooperation in the field of environmental ethics, in agreement with its constitutional mandate to promote scientific dialogue. UNESCO is a UN-Agency with an ethical mandate; the moral consideration of environmental problems could be shared with other international regional, and national actors, notably the specialized UN-Agencies such as UNEP, and FAO, while taking into account that the local application of general rules need to attend to the local context.

3.4 Developing education in the area of environmental ethics

UNESCO could promote the development of education concerning environmental ethics, in particular, but not only, through the integration of environmental ethics in the Ethics Education Programme (EEP) of UNESCO. It could also promote the development of other training programmes. The activities could include:

- Developing teaching material, including a possible syllabus;
- Training teachers;
- Developing fellowship programmes and other funding sources for education;
- Training of media;
- Environmental education and training for engineers, teachers, media workers, corporate managers and public officers.

This activity could be seen as an application of the proposed declaration on ethics and education (see 2.3.2).

3.5 Promoting in-depth study of the ethical implications of global warming

The issue of global warming is widely acknowledged as one of the most important environmental issues. Yet, there is incomplete scientific knowledge about it, as regards for instance its causes, its foreseeable duration or the possibility of reversing it. It may fall within the scientific mandate of UNESCO to promote in-depth study of the ethical implications of global warming, notably by facilitating interdisciplinary cooperation and the development of complexity management systems (see 3.2).

In all institutions taking decisions that have an impact on the environment (e.g. United Nations Organizations and governments) a Guardian to represent the interests of future generations could be institutionalised. It may be a person or an organization, with a purely consultative and advocacy role, "giving a voice to the voiceless", in this case not yet born persons. This initiative would enhance

awareness raising as regards the needs and rights of future generations and the associated duties of the present generation.

3.7 Developing local conservation ethics

The importance of indigenous knowledge for environmental conservation was affirmed in the World Summit on Sustainable Development (WSSD) Implementation Plan in 2002. In line with this, UNESCO could acknowledge and promote indigenous knowledge and promote local conservation ethics, in particular in the framework of cultural diversity and intangible and natural heritages. A database of best ethical practices, on the model of the RENEW network for water management, could be put in place, aiming at conserving and sharing ethical practices and ideas for environmental conservation.

3.8 Auditing policies as regards sustainable development

UNESCO together with appropriate specialized agencies such as UNEP or the United Nations Division on Sustainable Development, could assist Member States to do an audit of their policy documents and legal framework to determine whether sustainable development is given any recognition in these documents, and if there is such recognition, to answer the further questions as to which model of sustainable development is adopted, and whether that model is strong enough to protect the bio-physical environment as well as people from being dominated and exploited for short term economic gains.

Proposals to raise awareness

4.1 Promoting research on financial and political incentives

Beside the determination of ethical principles, research in environmental ethics could further consider and study the issues of financial and political incentives, for the determination and proclamation of values and principles will likely not be sufficient to solve environmental issues.

The development of such research would fit the advisory role of UNESCO to Member States in helping to design policies and regulations.

4.2 Promoting instruments to better understand the meaning of “sustainability”

The notion “sustainable development” is widely agreed upon as an aim for environmental policy, at least with regard to international instruments and declarations (See 1.1). However, the meanings given to this notion vary substantively. To raise awareness about the ambiguity of the notion “sustainable development”, and help facilitate the expected debate on the meaning of sustainability, UNESCO could promote instruments for a better and wider understanding of the different conceptions of sustainable development, which ranges from the sustainability of total capital with human welfare as purpose to the sustainability of “units of significance” due to obligations toward nature.

The environmental ethics experts have recommended that the international community adopt this last interpretation of sustainability. Failing that, they would recommend an interpretation of sustainability as aiming to sustain irreplaceable natural capital, with a justification that would include both human welfare (including material and aesthetic considerations) and obligations to nature. In any case, they recommend refuting the idea that human-made capital could be seen as a substitute for natural capital.

4.3 Promoting new paradigms

UNESCO could explore ways to develop alternative paradigms of thought and action to determine if and how they can replace dominant paradigms of thought and practice, which at best may be meant to address our environmental challenges, but apparently are unable to do so very effectively, or at worst, may be the very sources of our environmental problems.

UNESCO could help to reconceptualize the dominant model of sustainable development as three separate spheres of endeavour: the economy, the socio-political and the environmental spheres. These dimensions of our actions as human beings should be seen as fundamentally dependent upon one another, and can only be differentiated from one another on the level of abstract thought (see 4.2).

4.4 Compiling environmental ethics reports

Initiated by UNESO, a global environmental ethics report could be compiled on a regular basis. The mission of the report would be to evaluate the global progress of education and study of environmental ethics in the previous five years, and provide guidance for the education and study of environmental ethics for the next five years. The report could include the state of affairs regarding the recognition of environmental ethics principles and concepts in public and private policies relating to the environment; relating environmental ethics studies and relating environmental ethics education.

4.5 Setting up an international conference

An open international forum for scholars from different countries for the exchange and communication of different ideas could be useful. An international conference on environmental ethics with heterogeneous representatives, including a good representation of natural and social scientists, sponsored and organized by UNESCO, may be helpful for the development and promulgation of environmental ethics.

This is particularly important because the development of environmental ethics has been asymmetric until now. In developed countries, it is a relatively mature discipline, and is mandatory in the curriculum of many university students. But in many developing countries, environmental ethics is new and challenging. In addition, western environmental ethics is the dominant discourse in the field, and there is a need for the voice of developing countries and non-western environmental ethics to be better heard.

Annex: the Group of Experts on Environmental Ethics

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