Draft Report Outline / Terms of Reference: Ethical frameworks for research agendas & policy (Working Group 10)

In its current planned form we hope to cover the issues indicated below in the report for WG10. This outline is not all inclusive and it will need to be edited as the document takes shape.

Background

Establishing ethical frameworks for research is not aimed at thwarting the progress of science and technology by acting as the proverbial "spanner in the wheel". Especially during the formative years of any emerging field of technological research, ethical considerations tend to occupy the backseat due to high expectations from new, path-breaking innovations and the resultant over enthusiasm of the researchers themselves who often take care to showcase the success stories and present only the benign face of the new technology to the world. As the subject field of energy research is an emerging frontier area that is receiving the attention of scientists, technologists and innovators worldwide, major breakthroughs are regularly being made and new techniques invented. It is, therefore, a great challenge to the ethicists to keep track of these developments and to ensure that the research and applications in this field are giving due consideration to ethical principles. Ethical watchdog exercises are, therefore, all the more essential in these areas of scientific and technological research. At the same time, the ethicists themselves have to be careful to ensure that their actions and recommendations do not hinder the progress of science and technology keeping in view the needs and aspirations of present and future generations.

I. Objectives

1. To identify the priority areas that need ethical appraisal in relation to setting research agendas in policy-making relating to environmental ethics and energy technologies.

2. To assess the status of the existing ethical frameworks in these subject fields and make a strength-weakness-opportunity-threats (SWOT) analysis, using appropriate case studies, policy documents, scholarly publications, popular responses, media feedbacks and any other pertinent literature, wherever available and necessary.

3. To evolve an ethical framework on the basis of the above documents and discussions.

II. General Terms of Reference and Framework

The terms of reference for developing such a framework that is more specifically targeted at energy technologies and environmental ethics but is broad-based enough to later apply this framework to other areas of science policy are outlined below. The sections of the report may cover:

1. Examples of research agendas and policies that illustrate respect for and responsibilities towards the environment and for achieving sustainable and equitable development. Specific issues in sustainability would be illustrated by case studies from different cultures including conservation and prudent use of forests, wetlands and other natural ecosystems and their biodiversity, Non-Timber Forest Products (NTFP), water, minerals, fossil fuels, and so on. Loss of biodiversity due to hydropower projects and biodiesel plantations deserve special attention. Respect for and recognition of intrinsic values in non-human organisms and entire ecosystems may be an integral part of research policies.

2. Obligation of research (and policy) to respect for human rights (and dignity) that includes economic, social, cultural and religious-spiritual rights. Many energy technologies such as hydroelectric power generation are coming into conflict with these rights and need to be resolved along more ethical guidelines. Information available from Working Group 14 (Water Ethics) on large dams would also be utilized while drafting the report. Another contentious issue here is bioethanol generation vis-à-vis food security, especially in resource-starved and undernourished countries and communities.

3. Commitment to peaceful uses of new and existing technologies. Examples include nuclear energy, organophosphates (as nerve gases), and dioxins.

4. Respect for democratic ideals and principles while setting agendas for science and technology research and policy formulation. Democracy here essentially means not only at the global level among nations, but also between different institutions, communities, genders, as well as among regions within a given country (or between in the case of regional policy making bodies).

5. Commitment to global and social justice – across and within nations, regions, languages, castes and religions.

6. Adequate attention to livelihood concerns, especially of poor, marginal and ‘ecosystem people’ who live close to the land.

7. Respect for traditional knowledge (TK) and Community IPR – ensuring and evolving benefit-sharing mechanisms. Maintaining intellectual honesty and imparting distributive justice.

8. Using entire life cycle analysis for ethical assessment of technologies used to inform research agendas and policy. For instance, nuclear energy involves environmental and health hazards at the initial stage of uranium mining and processing and at the end stage of spent fuel storage. Or, the loss of carbon sink in the form of dense tropical forest versus the reduction in greenhouse gas emissions brought about by a hydroelectric power project need to be carefully weighed and evaluated.

9. Funding priorities to projects attempting to assist the research community (and others) address problems relevant for the poor and underprivileged.

10. Providing a sound philosophical foundation to research agenda and policy. Martin Heidegger's analysis of technology as "revealing/ bringing forth" vs. "enframing" could perhaps provide a philosophical base for the discussions. Also the concept of 'human dignity' vs. dignity of non-human species and systems as put forward by some scholars is relevant in an Asia-Pacific context. Other philosophies/ worldviews, including indigenous worldviews, need to be examined.

III. Annexures

Important documents, a few cited here as examples, could be added as further links.

1. The UNESCO-COMEST Precautionary Principle (2005) [also see: http://unesdoc.unesco.org/images/0013/001395/139578e.pdf]

2. *Guidelines for Research Ethics in Science and Technology*, prepared by the National Committee for Research Ethics in Science and Technology (NENT), Government of Norway. This document was drawn up in 2005, and revised in 2007 after a consultative process.

3. *Ethics of Climate Change: Exploring the principle of equal emission rights*, published by the Norwegian Academy of Technological Sciences (NTVA) in 2007.

4. The *Vancouver Convention*: [http://www.icmje.org/index.html]

5. *World Conference on Science*, 2000 [http://www.unesco.org/science/wcs]

6. *ICSU*, 2002. Report on the Study Group on *Science and Traditional Knowledge* [http://www.icsu.org/2_resourcecentre/RESOURCE_list_base.php4?rub=7]

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