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of Scientific Knowledge and Technology  
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## **World Commission on the Ethics of Scientific Knowledge and Technology**

### **Summary Report on Recommendations Adopted at the Sixth Ordinary Session**

In private session, COMEST discussed and adopted several recommendations based on the substantive work discussed in the course of the Ordinary Session and designed to support enhanced presence of ethics in programmes relating, *inter alia*, to climate change, science policies and nanotechnologies, along with improved focus of specifically ethical programmes such as science ethics and environmental ethics teaching.

### ***Recommendation on the ethical implications of global climate change***

On the basis of its draft report on *The Ethical Implications of Global Change*, as presented in public session, and taking account of the views expressed by the audience as well as by the external reviewers consulted during the drafting process, COMEST judged that the time had come to raise the possibility of a normative instrument to bring together the key ethical principles required to enable UNESCO Member States, and the international community generally, to respond adequately to the multidimensional challenge of global climate change, while respecting the requirements of a human rights framework and prioritizing the needs of the most vulnerable.

In light of these considerations, COMEST adopted the following recommendation.

**In view of the nature and extent of the scientific, social and human challenges of global climate change, which necessitate adoption of policies at the global level to address the pressing needs of the most vulnerable in the face of major uncertainties and the exigencies of international cooperation, it is urgent to determine universal ethical principles to guide responses to such challenges.**

**COMEST therefore recommends that UNESCO develop an ethical framework of principles in relation to climate change.**

### ***Recommendations on science ethics***

The recommendations of COMEST on science ethics focused exclusively on monitoring of the implementation of the 1974 Recommendation on the Status of Scientific Researchers, on which advice was requested with a view to the consultation with Member States and other relevant stakeholders that will be conducted by UNESCO in 2010, leading up to the monitoring process itself, which will be reported on to the Executive Board at its 187<sup>th</sup> Session in September 2011. Other aspects of science ethics were discussed in detail on the basis of the report presented in public session and the debate thereon, but the conclusions adopted were not treated formally as recommendations, but rather incorporated within the suggestions for COMEST work in 2010-11.

With respect to monitoring of implementation of the 1974 Recommendation on the Status of Scientific Researchers, COMEST made the following five recommendations.

- **The monitoring process should be designed so as to ensure integration of science ethics and science policy issues. It should also give Member States the opportunity to comment on the limitations of the 1974 Recommendation on the Status of Scientific Researchers and the practical steps that might be taken to supplement it, *inter alia* through enhanced articulation**

with the 1999 Declaration on Science and the Use of Scientific Knowledge.

- In addition to monitoring of national policies, consideration should be given to the impact of globalization, with particular reference to fair employment and non-employment conditions *across* and *within* national research systems.
- Particular attention should be given in analysis and follow-up of the monitoring process to global inequalities including brain drain and inequitable distribution of research funds.
- The role of public investment in research leading to public benefit should be promoted. Public-private partnerships, where relevant, should be equitable with regard to sharing of costs and benefits.
- In monitoring the 1974 Recommendation on the Status of Scientific Researchers, taking account of the economic importance of the knowledge society, UNESCO should consult Member States on the need for new ethical thinking on private-sector research and on intellectual property rights.

#### ***Recommendation on environmental ethics teaching***

On the basis of the report presented in public session, and of the debate thereon, COMEST discussed in detail the significance of environmental ethics teaching for its overall objectives in the area of environmental ethics. It was noted that, in addition to the direct contribution of teaching to general awareness raising and to embedding of ethical perspectives in routine professional practice, encouragement of networking and shared activities among specialists, teaching environmental ethics could contribute valuably to the conceptually sound development of universally acceptable principles along with improved understanding of cultural and other forms of diversity. The ability to rely on established networks of experts in the teaching of environmental ethics will also prove significant to ensure wide-ranging and robust consultation when required.

With these considerations in mind, and leaving most of its conclusions for further development in the course of its work in 2010-11, COMEST adopted the following specific recommendation on environmental ethics teaching.

**With a view to improved access to environmental ethics teaching resources (such as curricula, case studies, reading lists, teaching methodologies, etc.), UNESCO is requested to expand and enhance the Global Ethics Observatory, with a view to comprehensive regional coverage of teaching programmes.**

#### ***Recommendations on the ethics of nanotechnologies***

On the basis of the report presented in public session, and of the debate thereon, COMEST discussed in detail the extent to which the rapid development of nanotechnologies, and emerging dynamics of scientific and technological convergence, were giving rise to new ethical challenges. Stressing the need for follow-up to its earlier policy recommendations, published in 2007, COMEST

adopted the following specific recommendations on the ethics of nanotechnologies.

- **Taking note of the conclusions of the regional expert meeting on nanotechnologies and ethics in the Arab region, held in Doha (Qatar) in May 2009, and with particular reference to rapid scientific and technological development in the area of nanotechnology, UNESCO is requested to bring to the attention of its Member States in the Arab region the potential value of a “Declaration on the Ethics of Nanotechnologies in the Arab States”, based on the COMEST policy recommendations, and to support the relevant processes as required.**
- **With a view to improved access to information resources, documents and research relating to nanotechnology ethics, UNESCO is requested to enhance coverage of information on nanotechnologies and ethics in Database 6 of the Global Ethics Observatory.**