

Third Meeting

Geneva, 5-9 December 2005

Item 6 of the provisional agenda

**To discuss, and promote common understanding
and effective action on the content, promulgation,
and adoption of codes of conduct for scientists**

INDIA'S APPROACH TO CODES OF CONDUCT FOR SCIENTISTS

Prepared by India

1. Under the Biological and Toxin Weapons Convention, States Parties have undertaken that they shall, in accordance with their constitutional processes, take necessary measures to prohibit and prevent the development, production, stockpiling, acquisition, or retention of the agents, toxins, weapons, equipment and means of delivery. States Parties, therefore, have the primary responsibility to ensure that the research and development work in bio-sciences and bio-technology do not contribute to proliferation of technologies or materials that may enable the development, production, stockpiling, acquisition, or retention of the agents, toxins, weapons, equipment and means of delivery. Those who conduct, fund, administer, and regulate research and development work in bio-medical sciences and bio-technology need to be made aware of their responsibilities to ensure that they will use their knowledge and skills for the advancement of human welfare and will not engage in activities contrary to the obligations undertaken by the States Parties under the Convention.

2. While considering measures to monitor and regulate research and development work, there is a need to ensure that the monitoring and regulatory processes and mechanisms do not impede the freedom of the scientists to undertake such work. These measures should also not hamper exchange of equipment, materials and scientific and technological information for the use of bacteriological (biological) agents and toxins for peaceful purposes. This will be contrary to the objectives and purposes of the Convention and the obligations undertaken by States Parties under the Convention.

3. In India, a range of legal and regulatory provisions and administrative arrangements exist at different levels to minimize the possibility of misuse of scientific research and development work. India has taken steps to generate awareness among the scientists of their obligations under the Convention and the need to abide by its provisions. The Indian Council for Medical Research (ICMR) and Department of Bio-technology are playing pioneering role in the efforts to formulate codes of conduct for scientists engaged in research in the field of life-sciences.

4. At the Meeting of Experts (13 to 24 June 2005), the Indian delegation had made a presentation on “Indian Initiatives on Codes of Conduct for Scientists”. The Indian delegation had also presented a Working Paper (BWC/MSP/2005/MX/WP.23), entitled “Indian Initiatives on Codes of Conduct for Scientists”, which spelt out the legal and regulatory framework established by the Government of India for import, export, use and research on microorganisms, including genetically modified organisms. These include guidelines for scientists conducting research, which deal with microorganisms and toxins and genetic modifications. The Indian Working Paper had noted:

- (i) The need for increasing awareness of the risk of bio-terrorism among scientists and scientific leaders;
- (ii) The importance of developing training programmes and materials for educating scientists on bio-safety and bio-security issues;
- (iii) The need for establishing, in universities and other scientific institutions, procedures to monitor scientific activities and mechanisms to prevent dissemination of information that may be utilized for bio-terrorism;
- (iv) The appropriateness of a bottom-up approach in formulation and implementation of bio-safety and bio-security policies through direct involvement of scientists; and
- (v) The development of industry-outreach policy to inform and involve it in the process of evolution of bio-safety and bio-security policies.

5. This Working Paper aims to further elaborate Indian perspective on codes of conduct for scientists. India considers that rules and regulations for conducting research and development work need to be complemented by a set of codes of conduct and practice. They offer a means for regulating research at the level of individual scientists by enabling them to understand their obligations under the Convention, the implications of their research work and their responsibility to prevent the misuse of their work. Codes of conduct can create a culture of responsibility and accountability and help educate the current and future scientific community. They help raise scientists’ awareness of their professional, ethical and social responsibility and foster an institutional culture of ethos and responsibility. Also, codes of conduct, in conjunction with national legal, regulatory and administrative framework, can contribute to preventing bio-proliferation and bio-terrorism. They can also help improve control of biological agents, enhancing bio-safety and bio-security.

6. India regards that the aim of codes of conduct for scientists should be to ensure that all research activities involving microbial or other biological agents, or toxins whatever their origin or method of production, are only of types and in quantities that have justification for prophylactic, protective or other peaceful purposes. These codes of conduct should be governed by the principles of non-maleficence and beneficence and indivisibility of institutional and individual responsibility. Other key factors are creation of institutional framework and processes to ensure voluntary compliance with the codes of conduct, peer review of research work, minimization of risks and provision of opportunity for scientists to abstain or dissociate from engaging in a particular research work.

7. In view of the critical role ownership plays in adoption of the codes, every effort should be made to engage various stake-holders early in the process of development of codes. While academic and professional bodies are expected to shoulder the primary responsibility in the development and promulgation of codes of conduct, involvement of stake-holders from other fields, including public health, industry, funding agencies and scientific journals, is also necessary. The codes are more likely to be acceptable if they strike a balance between the freedom of scientists to pursue research in their field of interest and their socio-ethical responsibility.

8. It will not, however, suffice to develop and notify codes of conduct. A regular and effective programme to educate scientists, technicians and research managers engaged in laboratories, industry and research facilities will also be necessary, including steps to encourage universities to include codes in biomedical and bio-science curricula. Research Councils and other funding agencies have a crucial role in ensuring that research proposals consider implications of their research work, taking into account institutional codes of conduct. Review panels, referees, journal editors and publishers would also have to be educated in codes of conduct to enable them to take an informed decision if the results of a paper submitted for publication have a possible dual use. Institutional Review Committees have a primary role in ascertaining risks arising from the proposed research work. Furthermore, it would be essential to regularly and periodically review the codes of conduct and to modify them, if necessary, to respond to changing circumstances.
