

## **Global bioethics and governance: Views from FAO and India on the Ethics of Biotechnology in Agriculture and Medicine**

### **Scope of the present research**

The overall objective of this research was to analyse the role of ethics in the global governance of biotechnology. How do people apply biological knowledge in the service of humankind and the environment? The present thesis contains two major case studies related to governance of biotechnology and ethics. The first part focuses on the ethical issues faced by Food and Agriculture Organisation (FAO) of the United Nations as an international specialised agency responsible for global food and agriculture issues, and the second part focuses on India as a developing country to compare ethical issues in national and international governance of biotechnology.

### **Part A- Studies in FAO**

**Methodology-** Interviews with 103 staff members were conducted across all positions and all divisions of FAO on the ethical issues in food and agriculture, as an attempt to describe their attitudes. Over 100 key ethical issues (as keywords) were identified and categorized into 7 broad concept categories of food, rural development, information, biotechnology, sponsorship and funding, environment, animal issues.

**Results-**Based on interview notes and transcriptions from the tapes, the importance given by the persons to each of about 100 keywords was scored as “dominated”, “high”, “medium”, “little” and “not stated”. Results for the “major” (“dominated” and “high” on the scale) key issue raised in each of 7 concept categories is shown below:

FOOD- food security was considered as a major issue by 42 people, since it is in the constitutional mandate. RURAL DEVELOPMENT- a participatory approach at all levels was considered a major issue by 30 persons for effectiveness of developmental policies. INFORMATION- FAO as an honest broker to provide unbiased information and advice was considered a major issue by 35 people, given its unique role as an international secretariat and a neutral forum. BIOTECHNOLOGY- although biotechnology as a concept was not considered as an urgent issue by all the interviewees, the FAO leadership considered it an

urgent issue for ethical analysis with 22 people mentioning GM Food as a major issue. SPONSORSHIP and FUNDING- Influence of multinational corporations and the private sector was raised as a major issue by 19 people. ENVIRONMENT- Farmer's right to genetic resources and ownership to land races were considered as a major issues by 21 and 15 people, respectively. ANIMAL ISSUES- Animal husbandry was considered important by 11 people, and 5 people considered inhumane animal killing as a major concern.

### **Part B- Studies in India**

Similar methodology was used for interviews in India. The 24 people interviewed were mainly policy makers and members of different ethics committees.

*Results-* The issues included the broad areas of food and agriculture, health-care, and medical research.

FOOD and AGRICULTURE- In order to make direct comparison to FAO, issues in food and agriculture raised were categorised into the same 7 broad categories like FAO. Poverty and overpopulation was considered as the root cause of food insecurity and obstacles to development by more than 18 people. Resolving gender issues was considered most important for rural development and sustainability by 19 people. Proper information dissemination about the safety of technology for consumers to make better choice was rated as a major issue by 21 people. Labeling of GM food and environmental concerns of genetic modification were considered important by 12 and 10 people respectively. More than 18 people considered the rich vs poor divide and the role of the private sector as major issue. Genetic resource ownership and saving the ecosystem from damage for future generations were considered important by 12 people. Animal husbandry and religious issues were not a major concern for interviewees, as only 3 people raised them as concerns.

HEALTH CARE ISSUES- primary and secondary health care in rural areas due to poverty, and focus on women health and lack of finance for better infrastructure facilities in hospitals was raised by more than 15 people.

MEDICAL RESEARCH ISSUES- More than 20 people considered economic issues, especially funding and role of the MNCs, and international patents, as most challenging for medical research.

## **Discussion and conclusions**

Overall results show that bioethics as a word may not be used in the policy formulations either at national or international level. However, at each level of governance, principles of ethics have been important for a long time in history. Issues emerging from modern biotechnology may not be new, although there is significantly more awareness and public participation in modern times. This may be related to the immense possibilities of modern technology to change human lives, as well as the age of public civil rights and the information society. Issues that are important concerns for a nation were also usually found to be of global concern, for instance poverty, over- population and information dissemination were a common concern both in FAO and India. Participation from all sectors of society, including the private sector are crucial for the global governance of biotechnology as there are many stakeholders involved. For global governance of biotechnology, especially in food and agriculture, a more integrated policy stance is needed because the technology has both cumulative and indirect impacts on the environment and human beings.