

Workshop on Science-Society Interface in Emerging Technologies: Issue Note

27-28 March 2008

Venue: The Retreat – Teri Gram, Gual Pahari campus, Gurgaon-Faridabad Road

(Jointly organized by TERI and NISTADS, New Delhi)

Objectives

Engage in a dialogue and discuss the interface between the realms of science, society and emerging technologies with a focus on nanotechnology and biotechnology. Following are some of the issues, which could be discussed:

- ❖ Take stock of STS (science and technology studies) perspectives in emerging technologies with a focus on nanotechnology and biotechnology
- ❖ Identify the barriers that have led to or creates disconnect between technology, science and society and ways to bridge the communication gap between science and society
- ❖ Understand the decision-making frameworks with regard to emerging technology research, its applicability and sustainability
- ❖ Enlist the support of other ‘stakeholders’ – policy makers, industry, civil society, media and engage in a dialogue to analyze the interface between science and society
- ❖ Sensitize the young researchers on the promising leads for future works

Day One: 27 March 2008

Theme - Situating Emerging Technologies: Nanotechnology and Biotechnology

The aim of discussions on the first day would be to understand the nature and key characteristics of emerging technologies such as nanotechnology and biotechnology. The two sessions would seek to engage with the contexts within which these technologies need to be understood. The complexity and wide applicability of such emerging technologies raise several ethical and social issues pertaining to risks and accessibility. In this context, post facto analysis of the debate around GM crops offers valuable lessons on the social and ethical dimensions of new technologies. The sessions would also examine the extent to which our regulatory regimes and governance structures are equipped to face the

challenges of emerging technologies. These institutional issues would determine the extent to which the risks and opportunities are addressed.

Theme 1: Ethical and socio-economic issues pertaining to emerging technologies:

- ❖ Environmental, health and safety risks
- ❖ The challenge to privacy
- ❖ Issue of access: Are emerging technologies justice enhancing or justice impairing? The opportunities for social development, managing the economics of technological change
- ❖ Making technologies socially transformative

Theme 2: Governance and institutional issues:

- ❖ Risk governance: mandate, actors and processes in risk assessment and governance
- ❖ IPR regimes
- ❖ Regulatory issues, protocols and standards

Day two: 28 March 2008

Theme - Getting the Mix Right: Decision Making Framework and Communication in Emerging Technologies

Having discussed the domains of STS studies in the context of emerging technologies in a broader way, it would be important to gain insights into the nature of decision-making with respect to these technologies and ways to bring science and society closer by effective communication. These issues gain prominence from a developing country perspective where research activities are mostly through public initiative and there is a greater need to enlist the support of other stakeholders in the policy making process. Given that research on nanotechnology is still at the nascent stage, it would be significant to analyse the levels of awareness among scientists about the nature and implications of this new technology. Beyond the scientific community, the social implications of unfolding scientific and technological developments are in part determined by the public perception of science. Since there is restricted public access to scientific information it becomes important to bridge the gap between the pace of technological change and public understanding of such issues.

Theme 1: Decision making framework for policy making in emerging technology

- ❖ Setting research priorities and scientific research funding
- ❖ Engaging stakeholders in science policy design
- ❖ Need for orienting research towards policy relevant and development needs
- ❖ Stakes of NGOs and industry in S&T and development of emerging technologies (watchdog/testing evidences/suggesting priorities/developing solution to problems etc.)

Theme 2: Communication of science and technology -

- ❖ Challenges of science and technology communication – Paradigms and Methodologies
- ❖ Effective ways to communicate issues of complex nature associated with emerging technologies.

Organizing Committee

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