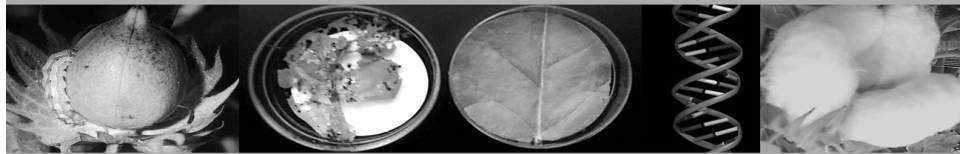


Environmental Risk Assessment, Socio-Economic Considerations and Decision-Making Support for LMOs in India



**Sachin Chaturvedi,
Vanga Siva Reddy,**

**Wendy Craig
Decio Ripandelli**



Terms of References of the Study

1. An objective review of the institutional mechanism, regulations, guidelines, procedures and information criteria used in India by regulatory authorities and/or their designates for the environmental risk assessment and approval of transgenic plants.
2. An objective review of how socio-economic and/or other non-safety considerations inform the decision to approve or not approve field trials and/or commercial releases.
3. For both 1 and 2, a comparison of the situation in India with that of the Philippines, EU, Argentina, South Africa, and China.



Process of Consultation

Process behind the Study (on Socio-Economic Issues)

Five Major Sources of Information/Views

- Study of sections related to the socio-economic aspects of various applications.
- Consultation with sitting and former members from RCGM, GEAC and policy makers at other key agencies.
- Earlier, suggestions/submissions on socio-economic aspects by India at the CPB meetings.
- Review of framework and methodologies adopted in various econometric and empirical academic studies.
- Interviews with industry associations and academics.



International Dynamics

Process at CoP-MoP

Socio-economic considerations (Decision BS-II/12)

- COP-MOP 2 invited Governments and relevant organizations with research activities related to socio-economic considerations arising from the impact of LMOs to share,
- through the BCH, information on their research methods and results, both positive and negative, as well as experiences in taking into account socio-economic impacts
- including in implementing the Akwé:Kon Voluntary Guidelines on impact assessment under CBD Article 8(j).
- It also requested Parties to provide to the Executive Secretary their views and case studies concerning socioeconomic impacts of LMOs, for consideration at COP-MOP 4.



International Dynamics

Process at CoP-MoP 3

Format for the First Regular National Report:

Guidelines for Reporting Format

Article 26 - Socio-Economic considerations

60. If during this reporting period your country has taken a decision on import, did it take into account socio-economic considerations arising from the impact of living modified organisms on the conservation and sustainable use of biological diversity, especially with regard to the value of biological diversity to indigenous and local communities? (Article 26.1)
61. Has your country cooperated with other Parties on research and information exchange on any socio-economic impacts of living modified organisms, especially on indigenous and local communities? (Article 26.2)
62. Please provide further details about your responses to the above questions, as well as description of your country's experiences and progress in implementing Article 26, including any obstacles or impediments encountered



International Dynamics

International Experiences

Socio-economic analysis in the Indian Biosafety Guidelines is a unique balancing provision to safeguard interest of farmers and that of the private sector companies.

Africa Group

The African Group's comprehensive proposal on socio-economic considerations included

- the possible threats to the biological diversity,
- traditional crops or other products, in particular farmer's varieties and sustainable agriculture;
- likely impacts from substitution of traditional crops, products and indigenous technologies through modern technology;
- anticipated social and economic costs resulting from the loss of genetic diversity, employment market opportunities;
- possible effects contrary to the social, cultural, ethical and religious values of communities.



International Dynamics



China

The national regulations in China were introduced almost at the same time when the CPB was concluded. Unlike in India, the approval system for transgenics in China is not distinguished from the agriculture department.

The research institutions and firms are expected to apply to the Agriculture Administration Department of the State Council for safety certification. It is the same department of the State Council, which is also responsible for importation and inspection for certification purposes.

Some provisions are required on socio-economic requirement than the agronomic details required.

Bolivia and Mexico

Bolivia and Mexico argued that the introduction of LMOs in countries with rich biodiversity or those that are centers of genetic diversity could result in its erosion and that a collapse in the agricultural systems would affect the livelihoods of these countries. The developing countries also expressed apprehensions that the introduction of LMOs would weaken the diverse agricultural systems and biological diversity, its conservation and sustainable use.



Key Recommendations

Recommendations on Socio-Economic Aspects

- Bulkiness to Precision
 - The voluminous data presentation from the private companies and their statutory requirement should be reconsidered.
 - In this regard, a sub-committee may consider finding of points of convergence in data collection with other similar exercises being done in the system so that duplication is avoided.
- Rationalizing Data Collection: Building systemic Anticipative Abilities
 - Need to develop common format or template for presentation of data under socio-economic requirements to GEAC or RCGM preferably in IET framework.
 - Developing anticipating ability of the system through rich ex-ante studies.



Key Recommendations

Recommendations on Socio-Economic Aspects

- Article 26 of CPB
 - There is no internationally agreed definition of socio-economic consideration, and this is to an extent, responsible for the lack of a common methodology to evaluate and assess the socio-economic implications of GMOs.
 - These limitations are largely due to the difference in priorities as countries are at various stages of economic development.
 - India has established socio-economic criteria, time has come that GEAC looks into the specifics of this dynamics



Contribution of the Report

- **Incremental benefit.**
- **Methodology and use of existing information for developing standard protocol.**
- **Putting baseline information together.**
- **Socio-economic aspects are part of CPB, hence this report helps bridging the gap.**