

Socio-economic considerations in biosafety legal frameworks

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Outline

- Overview of international legal biosafety frameworks
- Interconnectedness of issues
- Some examples of national treatment of socio-economic considerations
- Fish and rice
- Discussion

International frameworks on biosafety and socio-economic considerations

- Cartagena Protocol on Biosafety
- WTO treaties: SPS, TBT
- Agenda 21, Chapt. 16

CPB Article 26.1

- I. The Parties, in reaching a decision on import under this Protocol or under its domestic measures implementing the Protocol, **may take into account, consistent with their international obligations, 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.**
- II. The Parties are encouraged to cooperate on research and information exchange on any socio-economic impacts of living modified organisms, especially on indigenous and local communities.

WTO SPS, Article 5.3

The Agreement on the Application of Sanitary and Phytosanitary measures addresses economic issues that may lead a member to restrict trade:

“In assessing the risk to animal or plant life or health and determining the measure to be applied for achieving the appropriate level of sanitary or phytosanitary protection from such risk. Members shall take into account as **relevant economic factors: the potential damage in terms of loss of production or sales in the event of the entry, establishment or spread of a pest or disease; the costs of control or eradication** in the territory or the importing Member; and the **relative cost-effectiveness** of alternative approaches to limiting risks.”

WTO TBT, Art.2

- The Agreement on Technical Barriers to trade recognizes countries' right to adopt the technical regulations and standards they consider appropriate to achieve **"legitimate trade objectives" such as national security, preventing deceptive trade practices, protecting human health or safety, animal or plant life or health, or the environment, consumers' protection and prevention against deceptive practices and other objectives such as quality, technical harmonization or simply trade facilitation**, taking account of the risks of non-fulfillment (Art. 2.2). In assessing such risks, relevant elements for consideration are, *inter alia*, available scientific and technical information, related processing technology or intended end-uses of products (Annex, Art. 2.2). They should not cause unnecessary barriers to trade and should be applied equally to national and imported products (Art. 2.1).

Agenda 21, Ch. 16

- Agenda 21 notes that food supply questions are also related to food distribution problems, and highlights the importance of taking into account the needs of farmers, the socio-economic, cultural and environmental impacts; the need to promote sustainable social and economic development while paying particular attention to how the use of biotechnology will affect the maintenance of environmental integrity (Chapter 16.4).

What does this mean?

- Legal implications
 - limited opportunities for inclusion of socio-economic factors in context of international agreements
- Practical implications
 - limited does not mean none
 - alternatives

Examples of references to socio-economic considerations in national biosafety laws (Falck-Zepeda 2009)

Table 1. Biosafety protocols and socio-economic considerations in relevant regulatory laws and regulations.

Country	Party CBD/CPB ^a	CFT/CO ^b	Language of relevant text considering socio-economic considerations	Relevant law and regulations for socio-economic considerations
Argentina	Y/N	Y/Y	Decision on the convenience of the commercialization of the genetically modified material over its impact on markets, in charge of the National Market Directorate, so as to avoid potential negative impacts on Argentinean exports.	Resolution n° 1554/02 of SAGPyP and Resolutions n° 29/03 and n° 57/03 SAGPyA
Brazil	Y/Y	Y/Y	Article 48, Paragraph 1. The National Biosafety Council - CNBIO shall, upon request by CTNBio, in the context of convenience, socio-economic opportunity and national interest, requests to grant licenses on the commercial use of GMO and GMO derivatives.	Decree NO. 5.591, of November 23, 2005
Honduras	Y/Y	Y/Y	Socio-economic considerations will be considered through partial studies that should include different social and economic impacts.	Honduras draft policy
Kenya	Y/Y	Y/N	"In reaching a final decision, the Authority shall take into account ... (d) socio-economic considerations arising from the impact of the GMO on the environment."	Kenya draft policy
Uganda	Y/Y	Y/N	"The approval shall be given unless the GMO will not have adverse socio-economic impacts."	Uganda draft regulations of 2005
Nigeria	Y/Y	N/N	The decision-making procedures shall take into consideration risk assessment, which involves scientific, socio-economic, cultural and ethical considerations.	Nigeria National Biosafety Framework, 2005
R.S. Africa	Y/Y	Y/Y	"The Council may in performing its function in terms of sub regulation (9), consider the socio-economic impact that the introduction of a genetically modified organism may have on a community being in the vicinity of such introduction."	GMO Act 1997 (Act No. 15 of 1997)
Philippines	Y/Y	Y/Y	"Socio-economic, cultural and ethical considerations. Impacts on small farmers, indigenous people, women, small and medium enterprises, and the domestic scientific community to be taken in to account."	Executive Order 514 (EO514)
R.S. Africa	Y/Y	Y/Y	"The Council may in performing its function in terms of sub regulation (9), consider the socio-economic impact that the introduction of a genetically modified organism may have on a community being in the vicinity of such introduction."	GMO Act 1997 (Act No. 15 of 1997)
Philippines	Y/Y	Y/Y	"Socio-economic, cultural and ethical considerations. Impacts on small farmers, indigenous people, women, small and medium enterprises, and the domestic scientific community to be taken in to account."	Executive Order 514 (EO514)
Indonesia	Y/Y	Y/Y	"The utilization of GMF originating from both domestic and foreign products must pay attention to and take into consideration the religious, ethical, socio-cultural and ethical norms."	Regulation 21 of 2005
India	Y/Y	Y/Y	India's biosafety system provides for evaluation of the economic benefits of LMOs through systematic evaluation of agronomic performance.	Not included or mandated by the Environmental Act or Biosafety Guidelines
USA	N/N	Y/Y	Voluntary/additional information	None
Canada	Y/N	Y/Y	Voluntary/additional information	None
EU	Y/Y	Y/Y	European Commission requires preparing a report on the socio-economic impact of GM crops every three years. Definition of socio-economic considerations is unclear in current legislation and associated guidelines, no provision for a risk benefit analysis.	None

Note: Compiled by author from National Biosafety Frameworks, laws and regulations posted at the Biosafety Clearinghouse (Convention on Biological Diversity, 2008)

^a CBD/CPB-Party to the Convention on Biological Diversity/ Cartagena Protocol on Biosafety ^b

CFT-Conducted confined field trials, CO-Has made approval for commercialization ^{a,b} Y=Yes, N=no

Given the microscopic nature of that table...

- potential negative effects on exports (Argentina)
- socio-economic opportunity (Brazil)
- socio-economic/environmental linkage (Kenya)
- non-specified socio-economic and/or religious/ethical concerns (Uganda, Nigeria, Indonesia)
- local communities (R.S.Africa); indigenous people, small farmers, women (Philippines)
- economic benefit evaluation (India)
- no specific reference (USA)

Two examples from subnational government

- California: direct and indirect inclusion of socio-economic concerns -- the case of fish (indirect) and rice (direct)



Fish

Legislation and regulation

- California ban on open-ocean transgenic aquaculture and permitting for all transgenic aquaculture
- Process included substantial input from artisanal fishermen regarding potential economic harm
- The arguments were generally framed in biosafety terms

GloFish

Perceived benefits?
Ethical and moral issues





Rice

Novel varieties

- The California Rice Commission addresses ALL novel varieties of rice on the basis of potential economic impacts; not exclusive to transgenic rice, but encompassing it

What have you done?

- Q & A

Thank you very much