



Estado Plurinacional de Bolivia



MMAyA
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Socioeconomic Considerations in Decision-Making Related to LMOs: Experiences from the Plurinational State of Bolivia

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Flow of this presentation

Cases of
LMO
introductions
and SEC

Legal
background
addressing
SEC of
LMOs

Key
elements on
SEC of the
biosafety
regulation

Remaining
challenges
related to
SEC of
LMOs



Cases of LMO introductions and socioeconomic considerations

Case of LM potato

Brief background

- **1999**: Nematode tolerant variety approved for trials under controlled and open field conditions
- **2000**: Approval reversed due to social protests to protect the center of origin and genetic diversification of potato

Some relevant SE issues

- Potential biological / ecological changes → SE + cultural impacts mostly in rural and indigenous communities
- Narratives from indigenous people on unsuitability of LM potato for local uses

Case of GM soybean

Brief background

- **1998-2004:** Application and trials for RR soybean
- **2004:** Approval for open field trials
- **2005:** Approval for commercial production based on risk assessment that focused on agricultural issues

Some relevant SE issues

- Inserted into industrial agriculture
- Management changes with ecological impacts
- Ecological changes with SE implications
- Changes in access to differentiated markets

Volunteer RR soybean (right) in comparison to conventional soybean (left)

*Volunteer RR soybean
requires mechanical +
chemical management
with highly toxic
herbicides*



Case of LM maize

Brief background

- **2004:** Application for army worm / glufosinate tolerant variety
- **2005:** Submission rejected due to ecological and social risks in the main center of diversification
- **2010:** Complaint of illegal introduction by foreigners of unknown LM varieties

Some relevant SE issues

- Ecological risks linked to potential changes in local livelihood, knowledge, conservation strategies and cultural uses
- Staple food of indigenous people of valleys and low lands
- Main crop in subsistence agriculture of marginalized and vulnerable groups

Legal background for addressing SEC related to LMOs

Different regulatory instruments related to SE dimension of biosafety

| 1991 | 1992 | 2008 | 2010 | 2011 |
|--|--|--|---|--|
| ILO No. 169 Indigenous and Tribal Peoples Convention | Law on Environment | (New) Political Constitution of the State (CPE) | Law on Rights of Mother Earth | Law on Communitarian Productive Agricultural Revolution (RPCA) |
| Full realization of human rights and fundamental freedoms, elimination of discrimination and socio- economic gaps | Conservation of environment and natural resources in relation to human activities to improve quality of life (including human health) and achieve SD | Protection of food sovereignty and security ... Prevention of damage on human health and the environment | Recognition and protection of rights of Mother Earth an the Nature-Society inter-relationship ... Protection of life systems without genetic modification | Protection of local biodiversity of which Bolivia is centre of origin and diversity, life systems and human health ... Obligatory positive labelling |

Objective for the inclusion of SEC in decision-making process related to LMOs

Legal background:



Objective:

1991 - ILO No. 169 Indigenous and Tribal Peoples Convention

1992 - Law on Environment

2008 - (New) Political Constitution of the State

2010 - Law on Rights of Mother Earth

2011 - Law on Communitarian Productive Agricultural Revolution (RPCA)

To promote **wellbeing** by preventing and avoiding potential risks and adverse effects on the ecological, **socioeconomic and life systems**, resulting from LMOs, products thereof and related technological packages

Some key elements of SEC in the
biosafety regulation

Objective and Scope

- To promote **wellbeing** by preventing and avoiding potential risks and adverse effects on the ecological, **socioeconomic and life systems**, resulting from LMOs, products thereof and related technological packages



- All activities related to or carried out with:
 - LMOs/GMOs
 - Products thereof
 - Technological packages
- From R&D to consumption

Inclusion of tangible and intangible SE aspects

- Defined by “Life Systems” according to the Law on Rights to Mother Earth:
 - **Life Systems:** complex and dynamic communities of plants, animals, micro-organisms and other organisms and the surrounding context where they interact with **human communities** and Nature as a functional unity under the influence of climatic, physiographic and geologic factors, as well as **production practices and cultural diversity of both Bolivian women and men, cosmovisions of indigenous nations and peoples (...).**

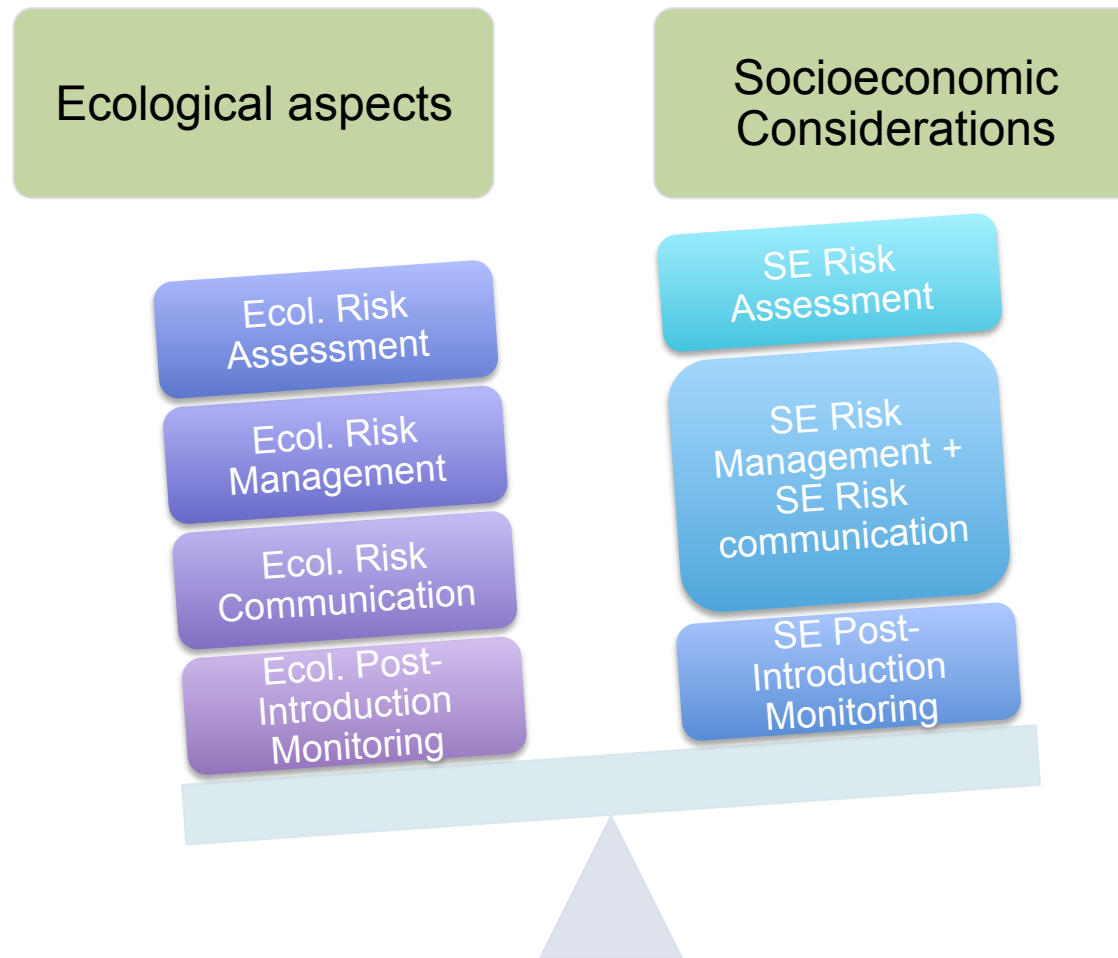
Restrictions to LMOs

- **Constitutional mandate (CPE Art. 255.II.8)**
 - GMOs are prohibited in light of food sovereignty and security in relation to international relationships
- **General provision given by the Law on Mother Earth Rights (Art. 7.2):**
 - Protection of life systems without genetic modification
- **Specific provision to agriculture given by Law on RPCA (Art. 15.2):**
 - Seeds and technological packages that:
 - Include GM seeds of which Bolivia is center of origin or genetic diversity
 - Imply a threat to the genetic heritage, biodiversity, health of life systems and human health.

Crosscutting issues relevant to SEC

- Precautionary approach in decision making considering ecological and socioeconomic uncertainties
- Giving ecological and socioeconomic aspects a similar level of consideration in decision-making
- Inclusion of risks and potential adverse effects in relation to gender and intergenerational approach
- Public information, participation and consultation

Consideration of ecological and SE aspects



Remaining challenges related to SEC of LMOs

Remaining challenges

- Clear understanding at international level of what is SEC
- Gaps of knowledge and relevant information missing on the SE dimension of biosafety with particular emphasis on centers of origin and indigenous peoples
- Identification of suitable methods
- Capacity building
- SE in relation to L&R



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Thanks for your attention

