



Institute of Research on Risk and Sustainability

THE CONTROVERSY ABOUT GMOS IN BRAZIL: A CLOSURE WITH A NEW CONFIGURATION OF COALITIONS LOOKING AT GLOBAL MARKETS

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Outline



- The road to closure of the controversy
- New configuration of coalitions
- Certifications
- Discourses on sustainability (GMOs and Non GMOs)
- New conflicts but without controversy

Brazilian context

- Debates took place in a restrict arena, with no discussion of how or why can be important to implement new political channels for a legitimate public debate.
- **Brazilian political culture**, with a significant elitist and traditional character, that permeates the action of political parties, social movements, and other political actors.

PHASES OF THE BRAZILIAN CONTROVERSY



- 1) Proliferation of the social
- 2) Provisory measures and dominance of the consumated act
- 3) Conflicts of interests in the aproval of the Biosafety law
- 4) Victory of the pro-GMOs coalition with the approval of the Biosafety law in 2005.
- 5) **Closure of the controversy, new coalitions and new debates.**

The road to closure

- After the regulation of the Biosafety Law, the coalition against GMOs lost political power.
- Difficulties to find a space for debate and criticism led Greenpeace to quit officially the campaign against GMOs in 2011. Its president justified this act by saying that Brazilian environmental problems were too many to be assumed by the NGO. The last information on GMOs in the Brazilian homepage is dated 2010.
- Also IDEC distant from the coalition.

The road to closure

- Although the coalition maintains its intellectual position, it no longer have the ability or means to pursue open confrontation:
 - “If participants lose their interest, the controversy ends but not because participants have appealed to rational grounds but because they ceased to appeal to rational grounds for a resolution, either due to sound arguments or to fair principles of negotiation” (Engelhard and Caplan, 1987:14).

Central role of CTNBio

- National Technical Committee on Biosafety
- multidisciplinary collegial body, part of the Ministry of Science and Technology in order to:
 - provide technical and consultative advice to the Federal Government in the formulation, updating and implementing the National Policy on Biosafety GMOs,
 - establishing technical standards of safety and technical advice conclusive regarding the protection of human health, living organisms and the environment, for activities involving the construction, experimentation, growing, handling, transport, marketing, consumption, storage, release and disposal of GMOs and derivatives.
- 27 (twenty seven) Brazilian citizens of recognized technical competence, performance and remarkable scientific knowledge, with academic degree of doctor and professional activity in the areas of biosafety, biotechnology, biology, human and animal health or the environment .
- -internal conflicts

Accelerated releases of GMOs

- Since 2008, CTNbio approved:
 - the commercial use of 26 types of transgenic seeds,
 - 10 vaccines for animal
 - a GM yeast for industrial use.
- Of a total of 28 GM varieties released today, 21 seeds are for herbicide resistance.
- Not coincidentally, in 2008 Brazil became the largest consumer of pesticides in the world, and in 2009, the country with the second largest area planted with transgenics.

Accelerated production of GMOs

- In RS, the conversion reaches almost 100% today, while in Mato Grosso do Sul 85%.
- National harvest in 2010/11: over 70% of 72.23 million tons of grain are genetically modified.
- Currently, 76% of soybeans, corn 56%, cotton 27% of the country are of transgenic origin.

GMOs in 2011

- Brazil: 30,3 million hectares
- EUA: 69 m hectares.
- Argentina: 23,7 m hectares

■ Annual Report of the International Service for the Acquisition of Agri-Biotech Applications (Isaaa)

New configuration of coalitions

Anti-GMOs

- Coalition for a Brazil free of GMOs and Pesticides
- AS-PTA
- Governmental agencies:
- Nucleus of Agrarian Studies and Rural Development (NEAD), the National Council on Food and Nutrition Security (CONSEA)
- 1 professional association.
- Farmers associations

Pro-non GMOs

- **ABRANGE** (Brazilian Non-GMO Grain Producers Association)
- **Big soy producers: Amaggi, Brejeiro, Caramuru e Imcopa**
- **GM free Soybean Program:** **Embrapa** (The Brazilian Agricultural and Animal Husbandry Research Company)
- Abrange,
- Mato Grosso Soybean and Corn Producers Association (Aprosoja), seed producers (Aprosmat),
- rural extension services (Emater-GO), and
- farmers associations.

Pro GMOs certified

- **Soy leading Group Companies Amaggi, Brejeiro, Caramuru e Imcopa**
- **Embrapa:** contract with Monsanto
- +
- Pro regular GMOs (farmers and big economic groups)

New configuration of coalitions

1) Anti-GMOs

- Coalition for a Brazil free of GMOs and Pesticides



- CAMPANHA POR UM BRASIL ECOLÓGICO, LIVRE DE TRANSGÊNICOS & AGROTÓXICOS

- AS-PTA (NGO for Family Agriculture and Agroecology)
- Governmental agencies (Nucleus of Agrarian Studies and Rural Development (NEAD), the [National Council on Food and Nutrition Security](#) (CONSEA))
- Some professional associations.
- Farmers associations

New configuration of coalitions

Anti-GMOs

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New configuration of coalitions

2) Pro-Non GMOs

- **ABRANGE** (Brazilian Non-GMO Grain Producers Association)
Big soy producers: Amaggi, Brejeiro, Caramuru e Imcopa

- EU and Asian Markets:
 - ABRANGE ensures that between 25 and 30 percent of Brazilian soybean production is free from genetic modification
 - For the two continents, the total exported in natura in 2010: 5 million tons, from the 29.06 million tons of non-GM Soy

- Norwegian company Denofa
 - New ownership structure
 - The Brazilian company Amaggi has entered an agreement to buy Agrencos 40% stake in Denofa and in addition 11% from Norgrain, leaving Amaggi with 51% of the shares in Denofa. Norgrain continues their ownership in Denofa and will now have 49% of the shares.

- Denofa is the only soy crusher in Scandinavia producing soybean meal and oil, as well as lecithin, for the feed and food industry from Non-GMO Soybeans.



New configuration of coalitions

2) Pro-Non GMOs-CERT ID

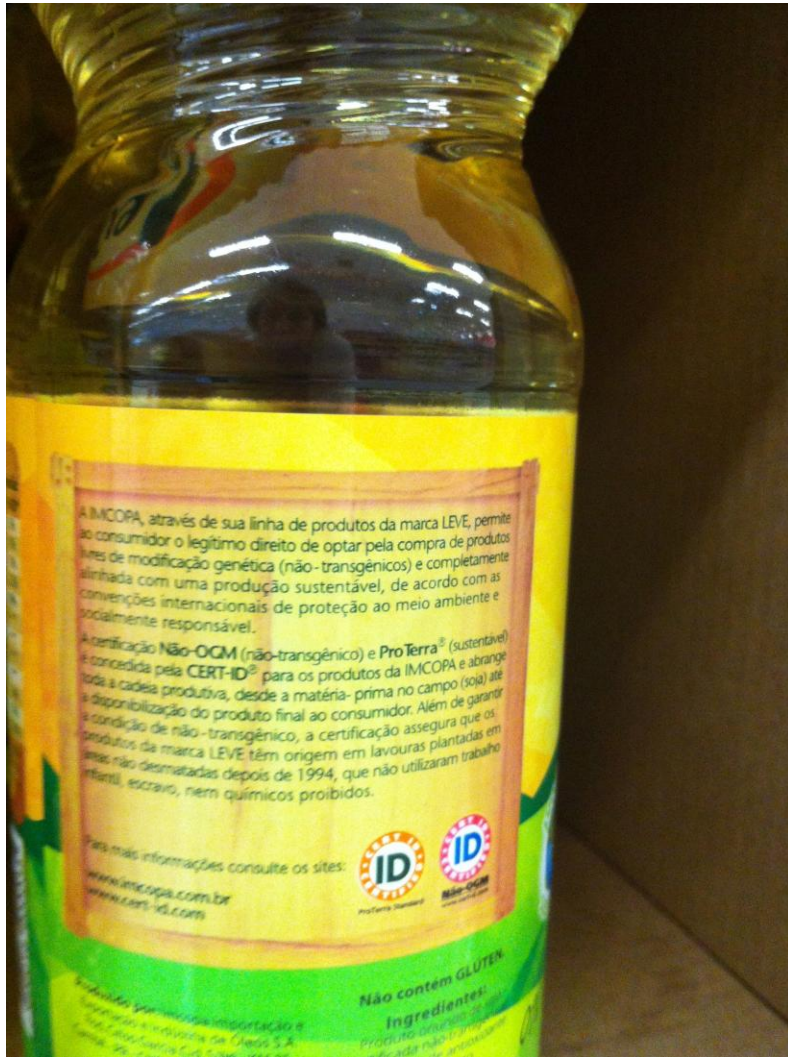


- **CERT ID's** begun in 1999 : third part certification, provide raw material producers, food and feed manufacturing industries, retailers and the final consumer.
- Involves witnessing; sampling; testing; monitoring and decision making; 4. Licensing - The Client and CERT ID, that expires twelve months from the date of issue
- **ProTerra Standard**, developed by CERT ID: emerged from the Basel Criteria for Responsible Soy Production, and which does not allow for GMO content or High Conservation Value Area (HCVA) destruction in agricultural production.
- It assumes to cover: ethics and social responsibility (community; health and safety; welfare and recruiting; child and forced labor, and employment and training); environmental sustainability (environmental impact; pollution, and waste management and Non-GMO); and product traceability.

New configuration of coalitions

2) Pro-Non GMOs -CERT ID

- 2011 is the sixth year Brazilian clients have certified their soy products according to both the CERT ID Non-GMO standard and sustainability certification, ProTerra[®], developed from the Basel Criteria for Responsible Soy Production.
- Non-GMO certification by CERT ID comes with the assurance of a GMO content below the quantification limit of 0.1 percent, and both Non-GMO- and ProTerra-certified material comes with batch-specific full traceability documentation.
- ProTerra does not allow for GMO content or High Conservation Value Area (HCVA) destruction in agricultural production.
- In 2008, the amount certified by Cert-ID was 2.57 million tons. Already in 2009, closed at 2.72 million, to finish 2010 with 2.9 million t.



New configuration of coalitions

2) Pro-Non GMOs-GM free Soybean Program

Soja
Livre

Sistema de Produção

SOJA
NÃO Geneticamente Modificada

Brazilian standards for the production of non-GMO soy in 2011

ABRANGE
ABIMILHO
ABNT
APROSMAT
CLASSMAT
EMBRAPA SOJA
ENVIROLOGIX
EUROFINS
FUNDAÇÃO TRIÂNGULO
GENESISGROUP
GRUPO ANDRE MAGGI
IMCOPA
NATURALLE
SGS DO BRASIL LTDA
TRIAGRO
TÜV RHEINLAND

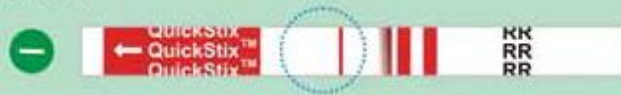
Para a avaliação qualitativa é utilizado o teste da fita (kit imunocromatográfico), mais comum e de fácil manuseio. Para a avaliação quantitativa, utiliza-se o Leitor QuickScan.

a. Para avaliação qualitativa: detecção da presença ou ausência de transgenia.

- **Duas linhas avermelhadas:** a amostra é positiva para a presença de soja transgênica.



- **Apenas uma linha visível:** a amostra é negativa.



b. Para avaliação quantitativa: detecção da porcentagem da presença de transgenia através do Leitor QuickScan.



New configuration of coalitions

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Pro GMOs certified

- **Soy leading Group Companies: Amaggi, Brejeiro, Caramuru e Imcopa**
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New configuration of coalitions

3) Pro-GMOs certified and not certified

- Soy leading Group Companies: Amaggi, Brejeiro, Caramuru and Imcopa
- The primary activities carried out by them: - Grain Origination and Commercialization - Farming Production - Soy seeds - Fertilizers
- Embrapa: contract with Monsanto
- +
- Soy production not certified

3) Pro-GMOs certified

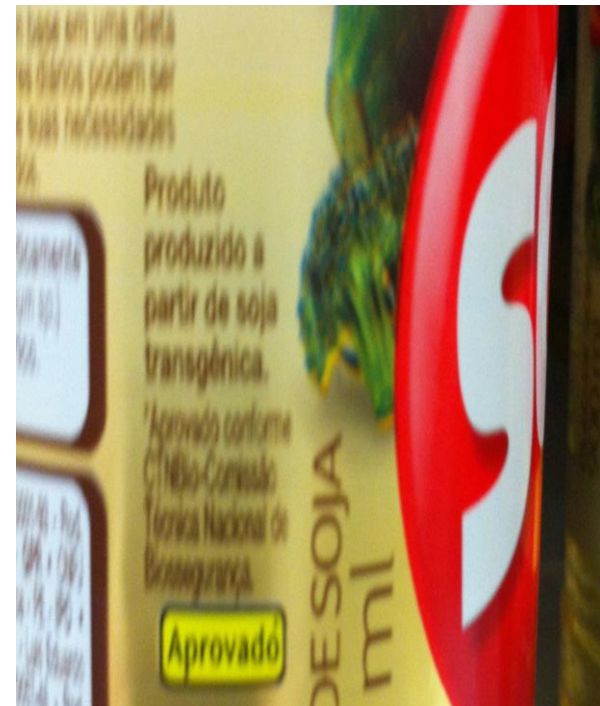
GMOs and RTRS certification

- the Round Table on Responsible Soy (RTRS) represents the Responsible Soy Association.



- Created in 2006, RTRS claims to guarantee :
 - good agricultural practices
 - respect to environmental and labor laws,
 - And other requirements increasingly frequent in the food international market.
- This standard applies to all kinds of soybeans, including conventionally grown, organic, and genetically modified (GM). It has been designed to be used for all scales of soy production and all the countries where soy is produced.

3) Pro-GMOs certified Labelling



Divergent views of sustainability

Anti-GMOs

- **People-centered or community:**
- devise rules to protect common goods from over-exploitation as a basis for communities to link producers to consumers, resisting industrialization and integration into global commerce
- Agroecology
- role as a moral crusade (bioethics, farmers rights, native seeds)
- Criticism to organic production for its relation to global markets

Pro-non GMOs

- **Environmental management:**
- In the agenda of A-brange are mentioned issues that relate to the rhetoric of accountability, responsibility and rights of farmers, topics more related to sectors that tend to see technological development as essential to social progress
- Use of performance standards and certification (Cert ID and Pro-terra)
- Market driven

Pro GMOs certified

- **Eco-efficiency:**
- GM crops minimize use of pesticides, deploy resources more efficiently, increase productivity and economic competitiveness.
- Food security
- Use of performance standards and certification
- Market driven

Following
Levidow, 2009

New Debates

1) Criticism of the Decision Process at CTNBio

- The liberation by the CTNBio of the transgenic bean resistant to the golden mosaic (developed by Embrapa) in 2011 joined all these different actors. The approval of transgenic beans resistant to the golden mosaic was on September 15, 2011, by CTNBio. There were 15 votes in favor, 2 abstentions and 5 members considered insufficient information contained in the report and requested more research. This is the first GMO product, developed by Embrapa, which will go directly for consumption in 2014..
- **Coalition against GMOs:** the international commitment signed by the Government in the Convention on Biological Diversity and the Protocol was not fulfilled and that "the country has not complied with the precautionary principle, the fundamental basis of Agenda 21, in their decisions regarding issues of biosecurity. " In the document the Commission is accused of extrapolating their skills neglecting the arguments against the liberalization of the transgenic beans presented by the Ministries of Health, Environment and Agrarian Development, which advocated the precautionary principle. Secrecy, lack of independent studies, field tests approved automatically.
- **Coalition Pro non GMOs:** The measure [related to the release of the transgenic bean] surprised consumers, scientists and environmentalists not only because of the rapid liberation and approval but also due to the unfair position of the CTNBio members: fifteen of them, who voted for the liberation, signed a petition weeks before the voting session, in favor of the transgenic bean approval. As members of CTNBio they are forbidden by law to publicly anticipate their votes
-

Criticism of the Decision Process at CTNBio

- under question in the Brazilian debates is the type of science regulating GMOs and if it is following the standards established in the Biosafety Law.
- The members of CTNBio operate in the not always clear difference between the regulatory science and academic science.
- Regulatory science is a territory especially complex because it is shaped by hybrid relations between government, industry and academy.

New Debates

2) Payment of royalties

- In the area of GMOs the situation is not totally peaceful.
- One very recent conflict is taken place in relation to the **payment of royalties** between different social actors: farmers that produce GMOs, Monsanto and the Brazilian Courts.
- The RS-Fetag (Federation of Agricultural Workers in Rio Grande do Sul) entered with an action against Monsanto for the charging of fees to farmers in the act of buying seeds of RR (Roundup Ready) soybeans. In 14 of June 2012 the Justice of Rio Grande do Sul ordered the suspension, on a preliminary basis, of the collection of royalties on commercialization of GM soy produced in Brazil.
- the seed produced by Monsanto can not be framed by the Law for the Protection of Intellectual Property, establishing the immediate cessation of collection of fees. The court determined that soybean producers have the right to reserve the product for both GM and replanting, as for marketing, without having to pay any royalty to the company.
- The mechanism set up by Monsanto so far collected a fee of 2% of all transgenic soybeans marketed in Brazil and sold abroad. The analysis established that the merits of GM seeds cannot be treated as an innovative product, endowed with the object of intellectual property and patent registration.
- Immediately after, Monsanto embargoed the court decision and, therefore, suspended all its effects. Thus, the charge to producers who have not paid for the use of RR technology in the purchase of seed should continue.

Final comments

- In the new configuration of coalitions, until 2012, the perspective is of a mosaic of social, scientific, political and economic actors, mainly looking for pragmatic goals in the global markets, acting in both fronts (GMOs and non-GMOs –certified and regular), with blurred contrasts in their positions in relation to sustainability and governance of risks.
- *Article to be published in Ambiente e Sociedade*

Many thanks!

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