

International trade liberalization, biotechnologies and food sovereignty

**Environmental and social aspects of Europe's
dependency on imported soy**

Friends of the Earth Europe

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- **GMOs/GM food and crops – where to find them?**
- **GM soy production in South America**
- **European demand for soy**
- **Win for big corporations**
- **Loss for small farmers and the environment**



EU's GMO legislation: animal products derived from GM fed animals - gap in the law

- **EU Food and Feed Regulation 1829/2003 prescribes the indication of GMO in food and feed**
- **Exception in Articles 24 and 25 for animal produce**
 - No label for meat, milk, eggs etc. derived from animals that are fed with GMOs
- **Significant amounts of GM soy and maize imported for feed and used for industrial meat and dairy production**
- **Regulations on voluntary GM-free labelling of food in EU Member States – UK, Austria, Germany, France**



GM cultivation in the world

- **GM crops grown significantly in only 5 countries in the world**
 - US and Canada, Argentina, Brazil, Paraguay
 - These countries represent 90% of all GM crops grown in the world
- **The US grows 50% of all GM crops in the world**
 - GM plantings = less than 3% of the total agricultural land in most of the producing countries
- **Only 4 countries plant GM crops on more than 30% of their arable land: US, Argentina, Paraguay and Uruguay**
- **GM soy, maize and cotton = 95% of world GM acreage, virtually all the rest is GM oilseed rape (canola)**



GM cultivation in the world

- 81% of these crops are herbicide tolerant (HT), mainly to Monsanto's Round Up Ready
 - 68% are HT alone
 - 13% have both HT and IR traits
- 19 % are insect resistant
- GM soybeans account for more than a half of GM acreage (HT)
- 90 million ha of soy cultivated - more than 41 millions ha are in South America (8 x area of BG; a bit less than area of DE + BG)



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GM soy exports from South America

- Argentina, Brazil and Paraguay among the first seven countries cultivating GM crops
- Argentina: the second largest grower of biotech crops in the world, growing 19.1 million hectares in 2007, comprising 19% of global biotech crop hectare
- In 2007, Argentina and Brazil supplied nearly four-fifths (79%) of imported feed going to the EU
- Brazil: Between 1998 and 2008 Brazil's soy export has increased significantly (85%), from about 21 to about 40 million tonnes - 68% as beans, 27% as meal and 5% as oil
- Increase in surface cultivated with GM soy between 2006/7 from 56% to 66% of it' s cultivated area
- GM soy in % of tatal soy area: Brazil – 65%, Argentina – 99%, Paraguay – 90%



European demand for soy

- The orientation of European agriculture and trade policies in the 90s towards WTO agenda has opened European markets to cheaper raw materials
- Agribusiness could purchase the cheapest option – grain traders, processed-food companies, meat companies
- Imports from South America increased as Brazil and Argentina analyse export markets before commercialising GM crops, the US don't
- European legumes and soy production declined
- Soy cultivated areas doubled in South America from 18 million ha in 1995 to 40 million ha in 2005 (soybean exports are estimated to rise more than 35% till 2017-2018)

European demand for soy

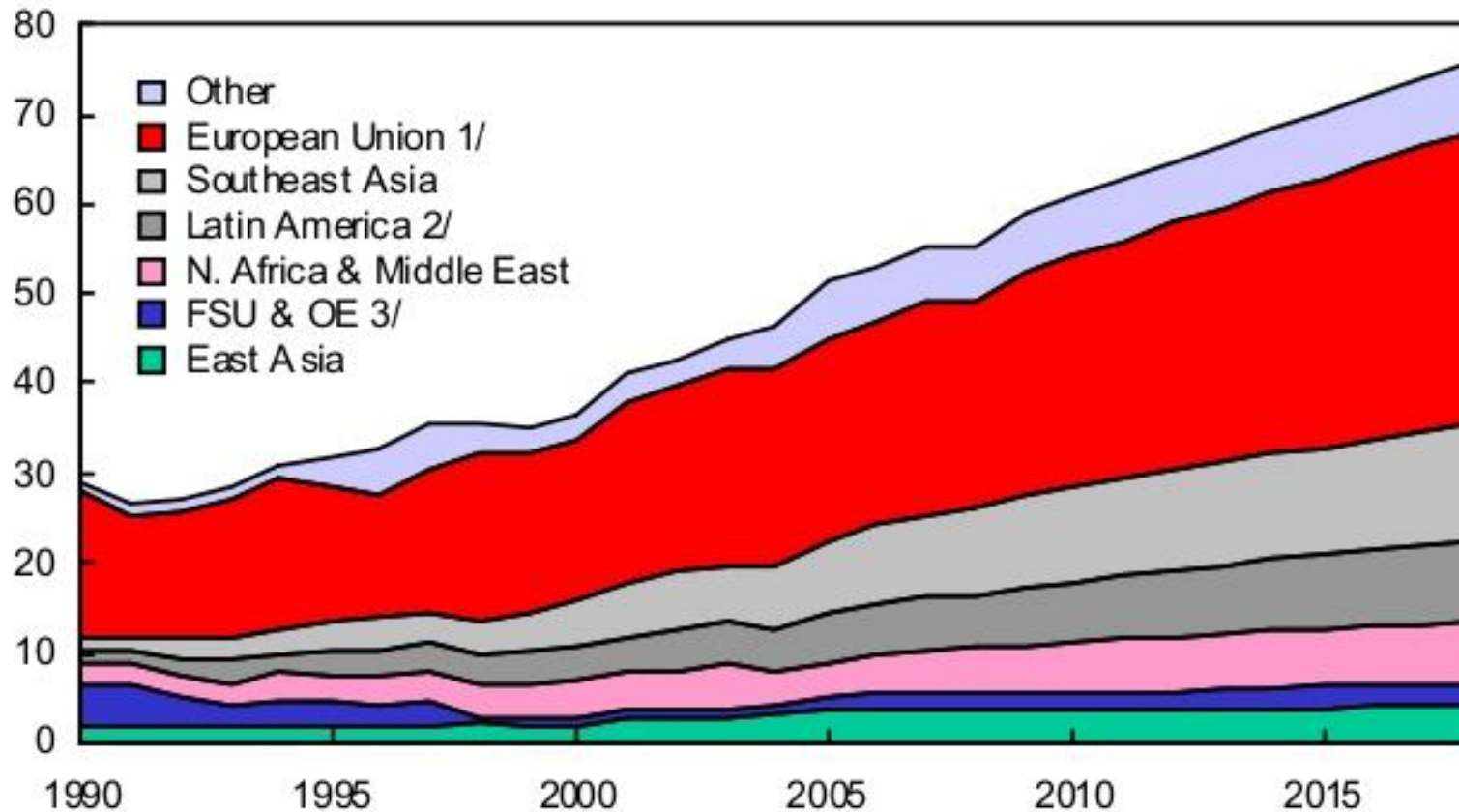
- The EU imports currently around 80% of its protein animal feed – mainly soy - to cover the needs of the industrial livestock production
- In 2007-2008 the European Union imported 15,4 million tonnes of soybeans, 22,9 million tonnes of soymeal and 0,7 million tonnes of soy oil (Bulgaria imports 50-60 thousand tonnes of soy)
- The European Union is the biggest soymeal importer with a share of over 50% of all imported soy meal
- In 2006-2007 the biggest shares originated from Brazil and Argentina - 33% of Brazil's harvest and 32% of that of Argentina had destination Europe
- Since 1995, EU-15 net soy meal import grew with 57%
- The imports until 1995 were steady over decades

*The biggest pig and poultry meat producing countries, Denmark, France, Germany, Netherlands, Poland, Spain, UK imported more than three-fifths of EU-27 soy meal imports over the past decade.



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Global soybean meal imports (millions of tons) Source USDA, 2009



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Profit for corporations

- Trade liberalization has allowed few international companies to monopolize the market
- Monsanto, DuPont-Pioneer, Syngenta and Bayer had 41% of the entire commercial seed market in 2006
- Monsanto is the world's number one seed firm and its GM traits are found in 86% of the world's biotech crops (virtual monopoly)
- In 2008, Monsanto made a gross profit of almost \$2 billion on Roundup and other glyphosate-based herbicides — about a third of the company's \$6.2 billion in gross profit
- Four international firms and a few Latin American firms dominate the global oilseed trade – US-based Archer Daniels Midland (ADM), Bunge, Cargill and the French company Louis Dreyfus



Loss for farmers and local communities

○ Increase in GM seeds prices

- In the US the average price of soybean seed increased more than 50% between 2006/2008
- Monsanto's Roundup Ready 2 soya beans are reported to be 42% more expensive than the RR1 version

○ Glyphosate-resistance and increase in glyphosate use

- emergence of glyphosate-resistant Johnsongrass is directly attributable to the huge increase in glyphosate use
- Brazil: 700% increase in the use of agrochemicals over the last 40 years; 77% increase in glyphosate use from 2000 to 2005
- Argentina: estimated that additional 25 million litres of herbicides needed each year to control resistant weeds, resulting in an **increase in production costs** of between \$160 and \$950 million per year

- **Health impacts** - Rural communities and farm workers exposed to pesticide spray drift (often from aircraft) of Roundup and other weed killers such as 2,4D and Paraquat



Loss for farmers and local communities

○ Labour saving effect of weed pests

- HT crops (mainly soybeans) reduce labour requirements for weed control and popular with large growers
- GM soy facilitated a labour-saving effect and a trend to concentrate farmland in fewer, ever bigger farms (Brazil and Argentina)

○ Displacing small farmers

- Expanding GM soybean monocultures in South America often displace small farmers growing food crops for local consumption, contributing to food insecurity
- indigenous people and rural populations are often forcibly evicted from their homes to make way for plantations
- Argentina: small operations under 200 ha represent 70% of all farms but less than 6% of the land; Between 1988 and 2002, over 100,000 farms and 230,000 agriculture jobs disappeared



Loss for farmers and local communities

○ Poverty increase

- In Paraguay, from 33% to 39% of the population from 2000 to 2005, the years in which huge soybean plantations expanded to cover over half of Paraguay's total cropland (about 90% of them now GM soybeans)
- 9000 campesino families per year are expelled alone due to expanding soy production

○ In Europe due to industrialization millions of farmers disappeared, factory farms appeared



Destroying natural resources in the exporting countries

○ Deforestation and biodiversity loss

- Between 1990-2005, 44 million ha of forests were cleared in Brazil and Argentina; cattle ranchers and soy farmers alone will destroy 40% of Amazon rainforest by 2050; Cerrado has lost at least 70% of its natural vegetation cover

○ Climate change - 20% of all CO₂ emissions through deforestation, NO₂ emissions from fertiliser

○ Water use and water pollution (the total soy crop in Brazil and Argentina contained 115 trillion liters of virtual water)

- 40 million Brazilinas no access to clean water

○ GM and pesticides use

- in Brazil the use of glyphosate increased more than 58% from 2000 to 2005



How to achieve food sovereignty?

- Objectives and instruments for a new market policies must be completely based on their ability to deliver for citizens and the environment rather than for their compliance with an international trade agenda
- Primary importance in Europe should have regional and local trade and support for regional products to be brought to the market
- Europe protected from a flood of imported soy
- Regulation of retailer pricing and marketing policies
- Greater reference to competition policy in the to remove monopolies and ensure diversity in food retail
- Coherence with other European policies



- [http://www.foeeurope.org/GMOs/Who Benefits/full report 2009.pdf](http://www.foeeurope.org/GMOs/Who%20Benefits/full%20report%202009.pdf)
- [http://www.foeeurope.org/GMOs/Who Benefits/who benefits full report 2010.pdf](http://www.foeeurope.org/GMOs/Who%20Benefits/who%20benefits%20full%20report%202010.pdf)
- <http://www.foei.org/en/resources/publications/pdfs/2011/who-benefits-from-gm-crops-2011>
- [http://www.foeeurope.org/agriculture/CAP causing soy expansion in South America.pdf](http://www.foeeurope.org/agriculture/CAP%20causing%20soy%20expansion%20in%20South%20America.pdf)
- <http://www.foeeurope.org/agriculture/FromForestToFork.pdf>
- <http://www.foeeurope.org/agrofuels/FFE/Profundo%20report%20final.pdf>
- http://eur-lex.europa.eu/RECH_naturel.do?ihmlang=en
- **REGULATION (EC) No 1829/2003 (food and feed) -** <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:268:0001:0023:EN:PDF>
- <http://documents.foodandwaterwatch.org/EUsoyFeb2011.pdf>
- <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A7-2011-0026+0+DOC+PDF+V0//EN&language=EN>

