

## Argentina and the United Soya Republic

The recent, rapid expansion of soya cultivation in Argentina is a largely uncontrolled phenomenon. In 1971, only 37,700 hectares of Argentina's arable land was used to grow soya. In the last 10 years, this area has increased by 250 per cent, to a record 14.2 million hectares<sup>1</sup>.

Soya expansion has been triggered by the increased demand for animal feed from both the European Union and China, and by the introduction of genetically engineered soya to Argentina in 1996. It has led to soya cultivation moving beyond Argentina's traditional farming area, the Pampas, to areas of land not previously used for farming.

Many of these areas are environmentally fragile, such as the northern Argentinean provinces of Chaco, Santiago del Estero, Salta and Formosa and many are forested. Over a million hectares of Argentina's forests have been destroyed to grow soya since 2000, and the amount is rising<sup>2</sup>. Forests are also being converted for soya production in Bolivia, Paraguay and southern Brazil. These areas are considered to be some of the most biologically diverse forest ecosystems in the world<sup>3</sup>.

The increase in soya cultivation has also led farmers that previously grew traditional crops and farmed cattle, to using their land to grow soya instead. Between 1996/7 and 2001/2, rice production in Argentina fell by 44.1%, corn production fell by 26.2% and sunflowers by 34.2%. The number of dairy farms went down from 30,141 in 1988, to 15,000 in 2002.<sup>4</sup> In this same period, soya production increased by 74.5%.

The 'United Soya Republic'<sup>5</sup>, as the genetic engineering industry now calls Argentina, Paraguay, Bolivia and Brazil, is growing at the expense of native forests, such as the Yungas and the Great Chaco forests, and at great cost to biodiversity, other traditional crops, as well as to human health, forest homes and livelihoods.

### Economic Incentives

This model of industrial agriculture began to boom in the 1990s, when the international financial institutions encouraged governments of the poorest countries to open their economies up to foreign investment.

This opened the way for the large 'agribusiness' multinationals, such as Monsanto, which found a ready market for genetically modified soya amongst Argentina's farming sector. Farmers were attracted by the promise of cheap beans, the need to use less pesticides and higher yields. The soya beans that were introduced to Argentina were genetically engineered to tolerate the herbicide 'glyphosate', known commercially as 'Round Up'. It is produced by Monsanto, which also owns the patent of the resistant bean, 'Round Up Ready Soya'.

The global demand for soya continues to rise. Argentina is now the world's third largest soya producer and it's top soya exporter. Over 90% of its harvest is exported, 98% of which is genetically modified<sup>6</sup>.

### Pesticides

When Monsanto first introduced glyphosate to Argentinean farmers, they found they only needed to spray their crops twice, at key moments in the season. In the past, they needed to apply a variety of pesticides, such as 2,4 D and Endosulfan. However, experience with using glyphosate over time has shown that it often needs far more applications than was originally anticipated. It is clear that Monsanto's promise that using glyphosate would lead to the need for fewer pesticides, was unfounded.

Massive quantities of Monsanto's glyphosate are used in Argentina. The business grew from USD 11 million in 1990 to USD 296 million in 2003<sup>7</sup>, with 150 million litres of glyphosate used in 2003, up from just 1.10 million

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<sup>1</sup>Coordination of Delegations Department, Argentinian Agriculture, Livestock, Fishing & Food Secretariat (SAGPYA), Agricultural Statistics, downloaded on July 2004, <http://www.sagpya.mecon.gov.ar/http-hsi/bases/oleagi.htm>

<sup>2</sup>Coordination of Delegations Department, Argentinian Agriculture, Livestock, Fishing & Food Secretariat (SAGPYA), Agricultural Statistics, downloaded on July 2004, <http://www.sagpya.mecon.gov.ar/http-hsi/bases/oleagi.htm>

Dr. Eng. Publio Araujo, National University of Santiago del Estero, La Nación, July 17th 2004, page, 6.

<sup>3</sup>According to The Nature Conservancy, WWF and Fundación Vida Silvestre Argentina, "Ecoregional Evaluation for the Great Chaco American", article downloaded on July 2004. <http://www.vidasilvestre.org.ar/bosques/granchaco.asp>

<sup>4</sup>Indec (Censo Nacional Agropecuario, 1988; SAGPyA (RESNPA, 1998); Live Stock Secretariat.

<sup>5</sup>La Nación, El Campo, 27th. December, 2003.

<sup>6</sup>Hinrichsen, J. J.; Yearbook JJ XXXIX, 2004

<sup>7</sup>CASAFE, Pesticides and Fertilizers Chamber, La Nación March 27th 2004, El Campo Sup.page 9.

litres in 1990. This has resulted in the emergence of weeds that are tolerant to the chemical. At least 10 species of tolerant weeds have now been identified in the country<sup>8</sup>, which cause enormous problems to farmers and crops.

There have also been cases of toxic clouds affecting people's health and damaging the crops of neighboring communities. In many rural towns, people complain that their families' crops are affected by the 'plane', referring to glyphosate fumigation<sup>9</sup>.

The genetic engineering industry's promises of higher yields were also unfounded. Initially, biotechnology industry spokespeople and even some Argentinean authorities said that higher yields of genetically engineered soya would avoid the need to deforest Argentina<sup>10</sup>. Eight years on, the forests are under threat and it's clear higher yields of soya have only been achieved through cultivating more land, deforestation, and using more efficient traditional breeding methods, not through the use of genetically engineered soya beans.

## Social Implications

The average soya farm in northern Argentina is over 1,000 hectares. The increase in industrial soya production has put many small farmers out of business and is causing serious problems to people who live on the land targeted for conversion. Since 1998, the number of farms in Argentina has reduced by 24.5 %. In 2002, there 103,405 fewer farms than in 1988<sup>11</sup>.

The Great Chaco and Yungas forests are, together, home to millions of people and are a source of employment and food for them. For many of these people, the forest is their only source of animal protein, honey and fruit, all products that significantly enrich a subsistence diet. According to the UN Food and Agriculture Organisation, forests are an important tool in the fight against poverty. As well as supporting the economic subsistence of many families, and delivering numerous environmental benefits to society, a well-managed, native forest can provide sustainable, economic production.

The appropriation of forests for agriculture often involves the forced eviction of 'campesinos' families and communities of indigenous people, who have lived and worked on the land for generations in areas such as Los Jurios, the province of Santiago del Estero, Salta Forestal and Lapacho Mocho. Taking advantage of legally weak title deeds or no title deeds at all, corporations and industrial farmers are buying vast areas of forest at very cheap prices, sometimes as low as USD 50 per hectare. The people living on the lands, often called 'usurpers', have no legal rights and are totally at the mercy of the landlords.

Many of these families are unaware that their land is up for sale on the internet<sup>12</sup>. Once the land is sold, the soya 'barons' pay local police to evict people who live in the forest, often at gunpoint. The landlords bulldoze the forest, burn the trees and plant genetically engineered soya. Those who have not already been evicted are forced to leave their deforested land in search of food and jobs. They often end up in city slums.

## The solution

Greenpeace is campaigning for a two-year moratorium on forest conversion in Argentina while the problems caused by land conversion are addressed:

1. Land Planning: A New Land Planning Programme must be established so that Argentina's forests can be saved and become productive areas again under sustainable regulations for both people and biodiversity.
2. Land Tenure Regulation: All indigenous people and 'campesinos' must be given the right to legally own sufficient land to enable them to work and feed both themselves and their families.

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<sup>8</sup> Rosario National University, Eng. Faccini, Delma. AgroMensajes Magazine N°4 page 5, December 2000.

<sup>9</sup> 'New Scientist', 'Argentina's Bitter Harvest' highlights - (Branford, S. (2004) Argentina's bitter harvest. New Scientist, 17th April 2004, pp. 40-43).

<sup>10</sup> Radio Nacional, Programa de Franco Salomone. Entrevista, 28 de Julio de 2000.

<sup>11</sup> Indec (Censo Nacional Agropecuario, 2002)

<sup>12</sup> www.camposdelnorte.com.ar