

Soy in Paraguay

Facts and Figures

Paraguay has a surface of 406.752 km². In 2007, the Paraguayan population was projected at roughly 6 million inhabitants of which 57% corresponds to urban population and 43% to rural population.

The country's GDP was estimated at US\$ 4.03 billion in 2006, which ranks Paraguay at place 110 out of 179 countries.

Since 2003, the population living in poverty decreased from 41.4% in 2003 to 35.6% in 2007. But this number is still higher than in the period 1999-2002 (approximately 33.8%). In the countryside, the poverty rate exceeds the national average.

The Human Development Index (HDI) for Paraguay was 0.752 in 2006, ranking the country at place 98 out of 179 countries. One of the main problems of Paraguay is inequality. The income of a person of the richest 10% of the population is 31 times the income of a person of the poorest 10% of the population. Only 1% of the population holds 77% of the land surface.

Sources: MAG, 2007; Rulli et al., 2006; UNDP, 2008; UNDP Paraguay, 2008

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This factsheet reports on soy and soy related issues in Paraguay. In the last ten years, soy has been rapidly expanding and causing serious social and environmental impacts.

Paraguay is the world's sixth producer and the fourth largest exporter of soybeans.¹

In the past ten years, the area under soy cultivation more than doubled from 1,150,000 ha in 1998 to 2,645,000 ha in 2008. In 2007, the area expanded by more than 200,000 ha.^{2,3}

Paraguay's major soy producing states are Alto Parana, Itapua and Canindeyu, respectively producing 2,036,618, 1,411,313 and 1,401,086 tonnes soybeans per year.⁴ The frontiers of soy expansion are moving towards the center of the country, more precisely in Caazapá, San Pedro and Caaguazú.⁵

Because of the Zero Deforestation Law (see below), deforestation in the eastern region of Paraguay is now minimal. Soy expansion mainly takes place on fallow land or producers' properties. However, especially wetlands are being affected by cultivation due to drainage.⁶

Agricultural products account for 90% of the value of Paraguayan exports, of which about 57% relates to primary export products such as soy beans, meat and cotton (16.6% of GDP). Of these products, soy represented about 45% of the country's sales abroad in 2006.⁷

Argentina is Paraguay's biggest importer of soybeans. From 2006-2007 exports to Argentina almost quadrupled, representing 55% of total soybeans export. This increase is a result of the rising demand for meat and cattle feed in China (accounting for 77% of Argentinean exports in 2007). The EU is the second biggest importer, representing 29% of soybeans exports. Within the EU, Germany, Italy and the Netherlands are the most important ones, accounting for respectively 10%, 6% and 5% of Paraguayan soy exports.^{8,9}

Soy-related issues in Paraguay

Paraguay is landlocked between the two soy giants Brazil and Argentina. Advantages of Paraguay for soy production are relatively cheap land, weak environmental regulations and monitoring, corruption and insignificant taxes on agricultural export commodities. Large multinationals (such as Cargill)¹ are using these circumstances to expand their activities in Paraguay.^{10,11,12}

¹ Cargill, which earns more than \$3 billion a year and dominates the world grain market, first began operation in Paraguay in 1978, at the height of the military dictatorship of Alfredo Stroessner. Today the company has 41 industrial facilities in Paraguay and leads the Paraguayan agribusiness sector with the commercialization of more than 1.3 million tons of soy, wheat, and corn each year. This amounts to about a third of Paraguay's annual harvest (Abramson, 2009).

The rapid expansion of soy production has been causing several social and environmental problems in Paraguay: land conflicts and violence, agrochemicals, GM soy, deforestation, and food security and food sovereignty.

Land conflicts and violence

Paraguay has a long history of land conflicts which has its roots in decennia of dictatorship. During the regime of the Colorado party (of which 35 years lead by dictator Alfredo Stroessner) land that was supposed to be allocated to Paraguayan peasants was (illegally) located by Instituto Bienestar Rural (IBR²) to large land owners, principally foreigners.¹³ In the 1970s, soy expansion accelerated in the south of Brazil and forced many small farmers to sell their land and to buy land in Paraguay. Brazilian state owners acquired massive pieces of land in Paraguay and took Brazilian farmers to Paraguay as land renters with a temporary contract to open up the land and prepare it for large scale agriculture.¹⁴

The majority of land conflicts in the history of Paraguay are attributed to soy expansion, although the cultivation of marihuana has been spurring land conflicts recently.^{15,16}

Land conflicts and violence between local peasant and indigenous communities and newly arrived landowners are intensifying. The displacement and further impoverishment of small producers, without creating new employment in the countryside, forces people to move to the cities, or if they can, abroad, and results in increasing numbers of landless peasants.^{17,18}

Since the first soy boom in 1990, almost 100,000 small-scale farmers have been forced to migrate to urban slums; about 9,000 rural families are evicted by soy production each year.¹⁹

Most violent incidents in 2004

The most violent incidents took place in the mobilizations of the peasant organizations in 2004, when at national level all the peasant organizations coordinated land squatting actions and defended the communities against the crop spraying. This peasant uprising, which had as one of the main slogans the rejection to the soy model, was violently repressed resulting in the militarization of the countryside. The results were more than 3000 arrested people, 2000 with charges, several deaths and hundreds of injured during the protests. This wave of violence and repression deeply affected the rural population generating fear and demobilization. Currently, the same problems continue but in many places the inhabitants do not dare to protest as actively as they did years before.

Source: Rulli et al., 2007

As a response to the increasingly critical situation of landless peasants, peasant organizations have organized protests like road blockades, land occupations and active resistance to pesticide spraying (see box 2).²⁰

The problems in Paraguay are complex and can not be easily explained. Nowadays, the main problems with land ownership result from corruption and impunity as well as *campesinos* illegally selling their so-called *derecheras*.³ Increased poverty is

forcing *campesinos* to sell their *derecheras* as an opportunity to gain income.²¹ To acquire these lands, the soy industry often uses divide and rule tactics in farming communities, but with few chances on economic development around family agriculture the price paid for the land still is a better alternative for many land owners.^{22,23}

Agrochemicals

Land conflicts are not the only cause of rural migration due to soy expansion. The increased use of pesticides is having an impact on people's health, crops and livestock. These problems are also increasingly forcing people to leave their communities.²⁴

Because Paraguay is a relatively small country with agricultural areas close to urban areas and rural settlements, the impact of pesticide use is wide ranging. Health problems related to the use of pesticides are increasing due to fumigations on fields nearby houses and, water sources or fields where people grow food crops. In the communities surrounded by soy fields there is a high incidence of cancer, spontaneous abortions, premature births and birth defects.^{25,26} It should however be mentioned that this information is not based on official statistics and should therefore be considered with caution.²⁷

² In 1963, the IBR (Instituto Bienestar Rural) was established as the official institution for land distribution. IBR is now called INDERT (Instituto de Desarrollo Rural y Tierras).

³ Through "Derecheras", the government allows *campesinos* to work these lands, but not to sell them as *derecheras* are no land titles.

After intensive discussions, a new law on agrochemicals “Ley de control de productos fitosanitarios de uso agrícola” was enacted on 22 May 2009. This new law relaxes all existing regulations regarding the protection of communities and water sources against pesticide spraying and was promoted by the major soy bean farmers. Despite opposition by *campesinos* organizations and NGOs, the influence of these major soy bean farmers resulted in the approval of this law.²⁸

GM soy

Genetically Modified (GM) or RoundUp Ready (RR) soy has expanded steadily in Paraguay since neighboring Argentina approved its production in 1996.²⁹ This gentech soy variety is resistant to RoundUp herbicide (glyphosate), which allows for large-scale monocultures.³⁰ The beans were introduced illegally in Paraguay until October 2004, when the first four RR soybean varieties were approved by the Agriculture Ministry.³¹ At present it is calculated that more than 90% of the soy produced is genetically modified.³²

The expansion of GM soy monocultures and their dependency on a single herbicide have created increased tolerance and/or resistance among pest populations, resulting in the need to increase the quantities applied per unit of surface and the need to apply other herbicides.³³ This has caused a threefold increase in the import of agrottoxics in Paraguay over the past years. In 2006, it represented a business of US\$ 160 million annually, with an additional US\$ 50 million of illegally imported agrottoxics. Due to a combination of widespread corruption among local authorities, porous borders, and lax enforcement of environmental laws, more than 23 million litres of pesticides and herbicides are sprayed onto the Paraguayan soil every year, including several that are classified by the World Health Organization as extremely hazardous (like 2,4-D, Gramoxone, Paraquat, Metamidofos, and Endosulfan).³⁴

Country regions

The river Paraguay, which runs from North to South, divides the country into two different ecological regions:

The occidental Chaco region (West), which represents 61% of the national territory and where 3% of the Paraguayan population lives. The Chaco is comprised of several habitats, although savannas, thorn forests, or a transition of these two are predominant.

The oriental region (East) where the large majority of the Paraguayans live. This region is the agricultural heartland of Paraguay. At the same time, this regions forms part of the Atlantic Forest which is one of the most endangered rainforests on earth. It is known for its high biodiversity and high level of species endemism — over 90 per cent of all amphibians and 50 per cent of all plants here are found nowhere else on earth.

Source: WWF, 2008

Deforestation

Until 2004 Paraguay registered the highest deforestation rate in the Americas and second in the world. Nearly 7 million ha of Atlantic Forest was lost to slash-and-burn for agricultural and ranching use in close to four decades.³⁵

In 2004, Paraguay brought into force a Zero Deforestation Law (Ley de Deforestación Cero), which prohibits the conversion of native forests to agricultural areas or areas for human settlements in the Upper Parana Atlantic Forest (UPAF).³⁶

By 2006, Paraguay had reduced its deforestation rate by 85% and received international recognition for these efforts. This number is still declining and the deforestation rate is now between 90 and 95%.³⁷ Despite the declining deforestation in the UPAF, there has been a significant increase in deforestation outside the limits of the Atlantic Forest, especially in the western Chaco region. The current deforestation rate in this region is estimated at 500 ha per day.³⁸

Deforestation has been threatening Paraguay’s unique biodiversity. Although the deforestation rate has decreased after the enforcement of the Zero Deforestation Law in the Atlantic Forest, deforestation has been increasing outside the limits of the UPAF (see above). Deforestation

causes fragmentation of nature areas as well as erosion and soil degradation, not only affecting local areas but also the whole country and its importance in the border region.³⁹

The main legal framework for the forestry sector in Paraguay has been provided in the Forest Law of 1973 (422/73). This law establishes fiscal incentives for reforestation; defines forest land as reserves, production forest, or semi-protected forest; and sets up regulations and fines to protect the forest resources. For example, this law states that landowners and producers should protect 25% of forested land on properties larger than 20 hectares. To date, the law has however been bypassed due to little political will and the fact that, until 2001, forests had been acknowledged as unproductive systems.⁴⁰ Recently, WWF Paraguay initiated the Program of Conformance with the Forest Legislation (CFL) (Programa de Adecuacion Legal (PAL) in cooperation with various governmental bodies. Through the CFL, compliance with the Forest Law is being promoted.⁴¹

Food security and food sovereignty

Food security and food sovereignty of Paraguayans is being threatened. With family farmers increasingly renting or selling their land, local food supply is being endangered.⁴² Several traditional crops which are an essential part of the staple food in the Paraguayan diet like cassava, maize and beans, are produced in less quantities as they are replaced by soy, raising local food prices.⁴³

Future perspectives

The emergence of the bio-fuels market will cause the area under soy cultivation to grow even more. In 2006, Paraguay signed an agreement with Brazil to cooperate in the development of bio fuels. Paraguay has embarked upon the development and installation of small and large scale plantations throughout the country. In addition, the most obvious tendency in relation to the emerging bio-fuel market during 2007 has been the increased interest in the purchase of grain and vegetable oil by groups of foreign businesses for biodiesel production in their own countries.

The environmental and social problems require urgent action. Rural displacement continues as small farmers prefer to sell their land to large producers, unable to resist the offers being made to them.⁴⁴ The government of President Fernando Lugo (inaugurated on August 15, 2008) raises high expectations for change. The reality the new government faces is the burden inherited from the previous system and its continuing influence in the legislative and juridical institutions which are still dominated by the Colorado party.^{45, 46} Besides, Paraguay is under pressure from Brazil, given the Brazilian investments in large scale soy production in Paraguay.⁴⁷

Land reform is one the biggest challenges for president Lugo. His supporters plan a national survey to determine land ownership — a project that could take at least two years.⁴⁸ Although Lugo publicly declared his support for peasant agriculture and announced that soy production should be concentrated in specific areas, social unrest continues. It will not be easy for president Lugo to hold on to his support for peasant agriculture in the face of conspiring political groups, the weakness of the public institutions, the lack of key experts and technicians and the urgency of social needs.

In order to pass legislation through blocks and boycotts in the legislative, administrative and judicial institutions, the government will have to rely on emergency decrees, as Nestor Kirchner has done in Argentina.⁴⁹ The ability of the new government to push through a land reform scheme, without using the (political explosive) expropriation measure, depends a lot on its capacity to pay out the land owners. Macro-economic analysis indicates that it is going to be a very difficult and long-lasting exercise, while state revenues from soy exports are increasingly important to cover for expenditure in social programs.⁵⁰

The information presented in this factsheet is based on the best available information and opinions. However, official data and statistics on the issues related to soy in Paraguay are limited and the information presented should therefore be considered with caution as they are exposed to some degree of subjectivity of the various sources.

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