

← AGAINST THE GRAIN

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THE UNITED REPUBLIC OF SOYBEANS: TAKE TWO



Soya plantation, eastern Paraguay.

“The United Republic of Soybeans”. That’s the patronizing moniker given to the entire Southern Cone – comprising the countries of Brazil, Argentina, Uruguay, Paraguay, and Bolivia – by the Syngenta Corporation in a 2003 advertisement in the rural supplements of the Argentine papers Clarín and La Nación. It’s an open statement of the neocolonialist fervour with which these companies are attempting to dominate this region of the world.

In 2012, the agribusiness transnationals really stepped up their campaign to control these countries and their institutions. They launched new genetically engineered (transgenic or GE) crops involving increased health and environmental hazards because of the agrottoxins (pesticides and herbicides) that have to be applied with them. They also lobbied for policy changes that are without precedent except for the initial GE onslaught in the second half of the 1990s. This new corporate drive comes in a troubling new context in which almost all the governments of the region (at least until June of last year) were “progressive” critics of neoliberalism. These governments have begun to rectify some of the neoliberal policies adopted in the 1990s, with the government taking a more active role in regulating the economy and providing for social welfare, education, and healthcare.

However, in all this time, the prevailing model of agricultural production has not changed. There has been no official concern about the problems caused by the widespread planting of transgenic soybeans and the high levels of agrottoxins this requires. On the contrary, this model continues to be consolidated and defended by all of the region’s governments, which have adopted it as government policy in every case. At best – and only when societal pressure becomes too great – they have given slapdash consideration to the problems of agrottoxin poisoning, displacement of peasants and first peoples, land concentration, and loss of local production. But these are considered “collateral impacts.” (Bolivia is excluded from this assessment, since although the “half-moon” region of Santa Cruz de la Sierra sits within the territory dubbed the “United Republic of Soybeans,” the government of Evo Morales has taken widely divergent positions from the rest of the governments. This has led to conflict with Santa Cruz power brokers who have called for the region to separate from the country).



In previous issues of *Against the grain*^{1 2 3}, we have criticized the soy incursion as serving to consolidate the agribusiness model of production. The Southern Cone has become the region with the highest concentration of GE crops in the world and, in a closely related development, the region with the highest per capita application of agrottoxins. In this issue, we will explore the soy phenomenon and its implications for peasant communities and society as a whole.

The profound impacts of the agribusiness model know no borders between rural and urban. In rural areas

1. [“¿Las corporaciones del agronegocio gobiernan en América Latina?”](#), GRAIN, 25 June 2007.
2. [“Monsanto moves to tighten its control over Latin America”](#), *Revista Biodiversidad*, 5 June 2007.
3. [“Monsanto’s royalty grab in Argentina”](#), GRAIN, 8 October, 2004.



Peasant organisations affiliated with La Via Campesina Paraguay march at the People's Summit at Rio+20 in June 2012. They were protesting the killing of 11 peasants at Curuguaty a few days earlier. (Photo: GRAIN).

and outer suburbs they are measured in terms of agro-toxin poisoning, displaced farmers (who swell the ranks of the urban poor), ruined regional economies, correspondingly high urban food prices, and contamination of the food supply. Ultimately, what we are looking at is a social and environmental catastrophe settling like a plague over the entire region. Wherever you live, you cannot ignore it.

The handful of people and companies responsible for this chain of destruction have names: Monsanto and a few other biotech corporations (Syngenta, Bayer) leading the pack; large landowners and planting pools that control millions of hectares (Los Grobo, CRESUD, El Tejar, Maggi, and others); and the cartels that move grain around the world (Cargill, ADM, and Bunge). Not to mention the governments of each of these countries and their enthusiastic support for this model. To these should be added the many auxiliary businesses providing services, machinery, spraying, and inputs that have enriched themselves as a result of the model.

To put some numbers on the phenomenon, there are currently over 46 million ha of GE soy monoculture in the region. These are sprayed with over 600 million litres of glyphosate and are causing deforestation at a rate of at least 500,000 ha per year.

While the regional impacts of this model tend to occur in interconnected fashion, we will attempt to break them down for further analysis. This analysis takes place against a backdrop of a coup d'état in Paraguay, where the powers that be have shown their intentions most abruptly and nakedly. But this coup was intended to set an example for the entire region. The idea was to show them the "right path" and the consequences of straying from it.

Agribusiness and murder

This has been a constant in the region in recent years. As mentioned, Paraguay is where the most brutal impacts have been felt. Perhaps the worst incident was the Curuguaty massacre on 15 June 2012 when 11 peasants and six police officers died as a result of open conflict between peasants, paramilitaries, and the government. The massacre was the pretext for the institutional coup d'état that put an end to president Lugo's administration.

Prior to the coup, and continuing afterward, a wave of repression against peasant leaders took place. This has morphed into selective assassinations that have taken the lives of Sixto Pérez (1 September 2012 in

Puentesíño, Concepción Department), Vidal Vega (1 December 2012 in Curuguaty, Canindeyú Department), and Benjamín Lezcano within a space of eight months following the inauguration of new president Federico Franco.⁴ CONAMURI, the national rural and indigenous women's confederation, has stated that the same *modus operandi* was used in the three cases and that the goal seems to have been the same in each: to decapitate the peasant leadership.⁵

In Argentina, three peasants have been murdered in Santiago del Estero in the last three years (Sandra Ely Juárez, Cristian Ferreyra, and Miguel Galván), all in connection with the soybean industry. Elsewhere, communities in the provinces of Formosa and Salta have been subjected to ongoing harassment.⁶

In Brazil too the peasant movement, and especially the Landless People's Movement (MST), has been hit with agribusiness violence. Recently, the Comisión Pastoral de la Tierra (CPT) released a preliminary report on the violence in 2012 that tabulates 36 deaths due to agrarian conflict.⁷ Already this year, three MST leaders have been assassinated (Cícero Guedes dos Santos, Regina dos Santos Pinho, and Fabio dos Santos Silva).

This is all taking place as part of a broader drive to criminalize social movements. Not only are the movements persecuted and stigmatized informally, but they are also targeted by repressive laws. Argentina in December 2011 passed an antiterrorism law that joins a number of similar laws already existing in countries of the region.

Agribusiness and agROTOXIN poisoning

One of the big lies told by the corporations, the media, and certain elements in academia to justify the introduction of GE seeds was that they would help reduce the use of agROTOXINS. As many peoples' organizations have repeatedly shown, the reality is exactly the opposite. Today, the rise in the use of agROTOXINS is alarming, and their impacts on the entire region are increasingly difficult to hide.

4. [“El asesinato selectivo de líderes campesinos, una práctica más frecuente”](#), BASE-IS, 15 March 2013.

5. [“Plan de exterminio”](#), Reportaje a Magui Balbuena de CONAMURI por Radio Mundo Real, 23 February 2013.

6. [“El árbol y el bosque”](#), Biodiversidadla, 10 April 2013.

7. [“Un militante del MST es asesinado”](#), MARCHA, 3 April 2013.

None of this should surprise anyone who realizes that genetically engineered seeds are being promoted by the same corporations that sell agROTOXINS, with Monsanto in the lead. In fact, herbicide-resistant crops are by far the most popular transgenic product on the market.

By 2008, Brazil had become the world's largest per capita consumer of agROTOXINS, accounting for 20% of all agROTOXINS used on the planet. Per capita consumption was 5.2 litres of agROTOXINS per year.⁸⁻⁹ The frightening figure of 853 million litres of agROTOXINS used in 2011, with 190% growth in the Brazilian market in the last decade, speaks volumes. Of this total, 55% of agROTOXINS are sprayed on soybeans and corn, with soy alone accounting for 40% of the total.¹⁰ Glyphosate accounts for about 40% of agROTOXIN consumption in Brazil.

Argentina is keeping pace. In 2011 a total of 238 million litres of glyphosate were sprayed, for a whopping 1190% increase over 1996, the year herbicide-tolerant transgenic soy was introduced into the country.¹¹

In Paraguay, the world's sixth largest soybean producer, glyphosate use in 2007 amounted to over 13 million litres.¹²

In Uruguay, where transgenic soy is also making inroads, at least 12 million litres were used in 2010.¹³ Uruguay is in fact the country where, due to drinking water contamination in the city of Montevideo, the urban population is beginning to react with alarm.

Taking stock of the region, it can be surmised that at least 600 million litres of glyphosate are being sprayed every year. This frightening figure has translated into the filing of innumerable complaints by people who have seen their health, ecosystems, agriculture, and communities be degraded by these agROTOXINS.

8. [“A luta constante contra os agrotóxicos”](#), Brasil de Fato, 11 January 2013.

9. [“Especial sobre agrotóxicos”](#), Brasil de Fato, June 2012.

10. [“Agrotóxicos, segurança alimentar e nutricional e saúde”](#), Associação Brasileira de Saúde Coletiva, 2012.

11. [“Producción de soya en el Cono Sur de las Américas”](#), GENOK, 31 July 2012.

12. [“Alimento sano, pueblo soberano”](#), CONAMURI, November 2011.

13. *Ibid.* 11.

Glyphosate, widely promoted by Monsanto for its supposedly low toxicity, is now under much closer scrutiny:

- The impact on communities is now impossible to hide. Thousands of people living in the “sprayed communities” are complaining of new health problems caused by pesticide applications, including birth defects, acute fatal poisonings, respiratory problems, neurological diseases, cancers, abortions, skin diseases, and others.
- Independent scientific research confirms these grave findings. Studies linking glyphosate to tumours and deformities in embryos have been published in the most prestigious journals in recent years.
- The health effects of the so-called “inert” ingredients used in Roundup, most notoriously the surfactant polyoxyethylene amine (POEA), have also been demonstrated. POEA is associated with gastrointestinal and central nervous system disorders, respiratory problems, and depressed red blood cell counts.
- The environmental harms caused by glyphosate have also been amply confirmed by both research and experience. Glyphosate is unquestionably linked to destruction of biodiversity, as in the peer-reviewed studies showing its toxic effects on amphibians.

As alarming as these figures may be, of even greater concern is the rising use of other agrotoxins in combination with glyphosate, often to compensate where weeds have become resistant to it. For example, 1.2 million litres of paraquat are now being sprayed in Argentina every year, and 3.32 million litres over the five soy-producing countries combined. Paraquat is linked to neurological disorders and for this reason was banned in 13 countries of the European Union in 2003.¹⁴

No doubt about it, agrotoxins are another piece of the murderous agribusiness picture.

Agribusiness and the imposition of genetic engineering

The introduction of new GE crops linked to the use of new agrotoxins is part of the corporations’ strategy and has been since 2012.

14. *Ibid.* 11.



Burning freshly-felled trees near Mariscal Estagarribia, in the Boqueron region of Paraguay. (Photo: Glyn Thomas / FoE).

Argentine President Cristina Fernández’s announcement of new Monsanto investments in Argentina at the Council of the Americas meeting on 15 June 2012 gave notice of the official and corporate agenda to be rolled out in the following months, including a tidal wave of projects, announcements, and attempts to change national legislation.

In August 2012, Minister of Agriculture Norberto Yahuar stood next to Monsanto executives and announced the approval of the new “Intacta” rr2 soy, which combines glyphosate resistance with Bt production. Nothing new here, except to combine the only two crop traits the biotech industry has managed to put on the market in its twenty years of existence.

But other transgenics have been approved for field trials, including soy and corn resistant to more dangerous herbicides such as glufosinate and 2,4-D. Andrés Carrasco, a researcher at the Argentine National Scientific and Technical Research Council (CONICET), stated the problem clearly a few months ago: “Five of those ten approved transgenic events [crop varieties] in Argentina, three of corn and two of soybeans, combine resistance to glyphosate with resistance to glufosinate ammonium [an inhibitor of synthesis of the amino acid glutamine]. The need to combine these two types of resistance in the new seeds shows up the inconsistencies in GE technology, in terms of both construction and behaviour over time. Yet instead of rethinking this approach, agribusiness keeps on trying to fix the problems with increasingly dangerous applications of the same GE technology.”¹⁵

15. [Un nuevo veneno, el glufosinato, lettro de Andrés Carrasco, Biodiversidadla, 31 August 2013.](#)



Buenos Aires, November 2011: march protesting the assassination of peasant farmer Cristian Ferreyra.

In Paraguay, just months after the institutional coup d'état, the Ministry of Agriculture approved a transgenic maize variety that the deposed government had been resisting and the peasant organizations had been expressly rejecting, due to the threat it poses to the many local varieties of maize grown by indigenous and peasant farmers. In October 2012, four varieties of transgenic maize manufactured by Monsanto, Dow, Agrotec, and Syngenta were approved.¹⁶ By August, de facto president Franco had revealed his true constituency by issuing an executive order allowing Roundup Ready Bt cotton seeds to be imported.

In Brazil, the escalation began in late 2011 with the announcement by the National Biosafety Technical Commission (CTNBio) of the first commercially grown GE bean variety “entirely developed in Brazil” and resistant to bean golden mosaic virus. This event, because it was developed by a public institution (Embrapa) and possesses different traits from the most widespread GE crops (Bt and rr), and because it concerns a staple food of lower-income people, became the poster child of “socially conscious” genetic engineering.¹⁷ However,

this approval has been challenged by public officials, the scientific community, and civil society. Renato Maluf, President of the National Food and Nutritional Safety Council (Consea), invoked the precautionary principle in stating his concerns about the hasty release of this variety. “We think it showed a lack of precaution to release a product that the whole population will consume when we don’t have certainty about its food safety and nutritional value,” he said. Similarly, Ana Carolina Brolo, legal counsel to the humanitarian organization Tierra de Derechos, indicated that “this GE crop approval was characterized by a lack of respect for domestic and international biosafety rules”.¹⁸

As has always been the case, the new GE crops depend on the use of agrottoxins to a very large extent. Some, such as glyphosate, are already in widespread use while other more toxic ones – dicamba, glufosinate, 2,4-D – are now being introduced. In Brazil, the Small Farmers’ Movement (MPA), a Via Campesina member, revealed in April 2012 that 2,4-D-resistant soy and maize

16. [Aprobado el uso de 4 tipos de semillas transgénicas de maíz](#), Paraguay.com, 25 October 2012.

17. [Aprueban la producción y comercialización del](#)

[primer transgénico brasileño](#)”, Agro Noticias FAO, 16 September 2011.

18. [“Fríjol transgénico desata polémica alimentaria”](#), IPS, 30 September 2011.



Petrona Villasboa's 11-year-old son, Silvino Talavera, died after being sprayed with pesticides while riding his bicycle along a road between two fields of soya. He was just 80 metres from his home in Pirapey, Itapúa, Paraguay (Photo: Glyn Thomas / FoE).

were slated for approval.¹⁹ These seeds are already being grown experimentally in Argentina.

Agribusiness and control over seeds

New seed laws are being steamrolled over Latin America. Argentina has been particularly targeted as a direct result of its agreement with Monsanto. The same day that the Minister of Agriculture announced the approval of “Intacta” soybeans, he sent a new seeds bill to Congress with instructions that it be passed before 2013.

The bill was never made public nor subjected to any in-depth debate. It was discussed behind closed doors in the Ministry of Agriculture by elements of Argentine agribusiness. Yet its content transcends the agriculture ministry and confirms what the official announcement intimated: the bill will subordinate domestic seed policy to the dictates of UPOV²⁰ and the transnationals.

The National Indigenous Peasant Movement (MNCI)

19. [“Brasil: MPA denuncia próxima aprobación de transgénicos resistentes al 2,4-D”](#), *Vía Campesina*, 24 April 2012.

20. UPOV - the International Union for the Protection of New Varieties of Plants – is an organisation that promotes legislation protecting patents on plant genes and plant breeders’ rights, to the detriment of indigenous and peasant farmers ownership, use and exchange of seeds.

presented a cogent criticism: “The bill does not protect knowledge or biodiversity. It promotes privatization and protects ownership over the collective heritage of our peoples, especially peasant communities and indigenous peoples. It opens the doors to more extensive expropriation and privatization of agricultural and wild biodiversity in Argentina. It criminalizes or greatly restricts practices in effect since the beginnings of agriculture; i.e., freely selecting, breeding, obtaining, saving, reproducing, and exchanging seeds from the previous harvest. It sets the stage for the continued introduction of new genetically engineered crops, and the expansion of existing ones, by granting ownership over varieties without requiring proof of quality but simply on the basis of the existence of a trait. And, it gives the seed companies the power to police compliance with the provisions of the bill”.²¹

Thanks to organizing by various sectors, the tabling of the bill in Congress has been postponed, but the threat of its passage still looms.

Quite clearly, control over seeds – the basic unit of agriculture – is one of the main goals of the corporations. In this way, they hope to gain control over the entire agrifood system and build an unshakable monopoly. It is equally clear that such control would directly impact all human beings, preventing them from exercising food sovereignty and condemning millions to hunger.

21. [“¡NO a la privatización de las semillas en Argentina!”](#), MNCI - CLOC-VC Argentina - GRAIN - AT - ACBIO, 2 October 2012.

Agribusiness and forest destruction

Deforestation throughout the region has intensified dramatically. Measures designed to rein it in (such as the Forests Act in Argentina and various regulations adopted in Brazil) have failed to stop it. The main cause is the advance of the agricultural frontier (often pushing the ranching frontier ahead of it).

As in the past, Brazil leads the pack with a net 28 million hectares of lost forest in the decade from 2000 to 2010.²² Between August 2010 and July 2011, 641,800 hectares of Amazon forest were lost,²³ a fact triumphantly celebrated by the national authorities.

In Argentina, the figures (from official and NGO sources) were as follows: between 2004 and 2012, the logging machines destroyed 2,501,912 hectares, an area 124 times that of the city of Buenos Aires. Put another way, Argentina is destroying 36 football fields worth of forest every hour. The last Ministry of the Environment report, covering 2006-2011, found that 1,779,360 hectares of native forest had been destroyed during this period.²⁴

In Paraguay, the deforestation picture is perhaps the most serious. On the one hand, historical deforestation (1945–1997) for agriculture caused a loss of 76.3% of the original forest cover in the eastern region.²⁵ On the other, current deforestation in the western region culminated in 2011 with a loss of 286,742 ha of forest, a 23% increase over the figure of 232,000 ha deforested during 2010.²⁶

A global look at this tragedy gives a better idea of the dimensions of what is occurring. An FAO study published in 2011²⁷ found that the average annual worldwide net loss of forest between 1990 and 2005 was around 5 million ha – and 4 million of that is taking place in South America.

22. [“A brief overview of deforestation in tropical forests”](#), WRM Bulletin No 188, March 2013 3 April 2013.

23. [“Deforestación en Amazonia cayó a mínimo histórico”](#), Hoy, 5 June 2013.

24. [“El árbol y el bosque”](#), Mu 63, 15 March 2013.

25. [“Paraguay: cómo se pierde el 90% de los bosques de un país”](#), Vanessa Sánchez, Soitu.es, 11 August 2008.

26. [“Continúa sin pausa la deforestación en el Chaco paraguayo”](#), EA , 20 February 2012.

27. [“Satellite technology yields new forest loss estimates”](#), FAO, 30 November 2011.

Here again, agribusiness is making a killing in the literal sense: it is killing the unique ecosystems of the region, and thereby the peoples who have cohabited with the forest for millennia.

Agribusiness and land consolidation

Land consolidation is another phenomenon that has characterized the introduction of GE soybeans throughout the Southern Cone. Land concentration was already a serious problem in these countries, but it has gotten much worse.

Paraguay, already among the Latin American countries with the most unequal land distribution, saw this situation escalate to the point where today, 2% of owners control 85% of the farmland. The regional situation is worse when one considers that the neighbouring countries – Brazil especially but also Argentina – are also experiencing land concentration for transgenic soybeans.

Let's look at some figures for these countries:²⁸

– In Paraguay, in 2005, 4% of the soybean growers occupied 60% of total area planted to this crop.

– In Brazil, in 2006, 5% of the soybean growers occupied 59% of the total area planted to this crop.

– In Argentina, in 2010, over 50% of the soybean production was controlled by 3% of producers, who occupied farms over 5000 ha.

– In Uruguay, in 2010, 26% of producers controlled 85% of soybean land. That same year, 1% of growers controlled 35% of soybean land.

The soybean model has profoundly transformed the way in which land is concentrated. Today, most land is not purchased but leased by the large producers. These “producers” are not physically identifiable persons but pools, financed for the most part by speculative investment groups.

The consequences for local, peasant, and indigenous communities are always the same: expulsion from their land, in many cases with physical violence, as discussed above.

Figures on land expulsion are hard to come by, since there are no official statistics for any country of the region. However, researchers have found that in Paraguay, the agribusiness soybean steamroller, in its push to control 4

28. *Ibid.* 11.

million ha of land, has displaced 143,000 peasant families. That's more than half the farms under 20 ha recorded in the agricultural census of 1991.²⁹ For Argentina, this model has provoked an unprecedented rural exodus which, by 2007, had expelled more than 200,000 farmers and their families from the land (26). In Brazil, starting in the 1970s, soy production displaced 2.5 million people in the state of Paraná and 300,000 in the state of Rio Grande do Sul.³⁰

Agribusiness: meet the new dictator

The institutional coup d'état in Paraguay shows how agribusiness – basically transnational corporations in cahoots with large landowners – is unwilling to be held back by whatever timid restrictions the national governments may try to impose.

In Paraguay, the Lugo government, though it had a parliamentary minority, was trying to set some limits on some of the worst aspects of industrial agriculture. Initiatives carried out by the ministries of health and environment and by the National Phytosanitary and Seed Service (Senave) sought to rein in the use of agrotoxins and the approval of new transgenics, especially Roundup-Ready maize and Bt cotton. The government also initiated dialogue with peasant organizations to try to put a stop to the long-running violence in the countryside as a result of land concentration.

The powerful agribusiness sector grouped under the UGP, with the support of Monsanto, Cargill, and other transnationals declared war on the authorities responsible for these initiatives, publicly calling for their ouster. The Curuguaty massacre was the excuse they found to overthrow President Lugo with the help of their allies in Congress. A two-hour session was all it took to bring in a new government favourable to their interests.

It was not just a change of president: with Lugo went all the public officials responsible for these positive initiatives. In short order they were replaced by agribusiness-friendly officials and measures. The proposed restrictions on spraying, new transgenics, and Seeds Act amendments vanished.

29. “Los refugiados modelo agroexportador”, Javier Rulli, *Repúblicas Unidas de la Soja*, GRR, 2007.

30. “Una reflexión sobre la reciente expansión del cultivo de la soja en América Latina”, Segrelles Serrano, José Antonio, *Grupo Interdisciplinario de Estudios Críticos y de América Latina*, 25 June 2007.

With the recent election of Horacio Cartés, the Colorado Party is back in power. Impunity for the coup plotters and free rein for agribusiness are the order of the day.

In the other countries of the region the situation is different. While the crude reality of Paraguay is not in evidence, it is also clear that agribusiness is making headway with its preferred policies and interfering with attempts to derail them.

The upshot is plain for all to see: democracy is incompatible with corporate control. We must demolish the structures allowing for agribusiness to take control over our resources if we wish to live in a democracy where the common good is preserved.

Agribusiness control over research

Universities and research institutes throughout the region, with a few honourable exceptions, have been colonized by the power and money of the agribusiness corporations. These corporations are using the research facilities as a mechanism through which to introduce genetically engineered crops and industrialized production models.

In 2012, it became public knowledge that Monsanto and the National Agricultural Research Institute of Uruguay (INIA) had signed an agreement to include company-owned transgenes in local soy germ plasm handled by the Institute.³¹ This agreement was publicly challenged by the National Rural Development Commission (CNFR), which represents family farmers on the INIA Board of Directors. It also came under fire from a number of civil society organizations, including REDES-Amigos de la Tierra. The agreement, whose text has not been made public, became the subject of an access to information request by elected members of the Frente Amplio (FA).

After the coup in Paraguay, the new minister of agriculture, Enzo Cardozo, announced that Paraguay would be producing its own GE seeds and making them available to all farmers. The seeds would be bred by the Paraguay Institute of Agricultural Technology (IPTA), which would receive a “technology transfer” from Monsanto upon payment of an amount to be agreed upon by de facto president Federico Franco.³²

31. “Alimentando las estrategias corporativas”, REDES-AT, 31 August 2012.

32. “La espada de Monsanto sobre América Latina”, *Marcha*, 4 October 2012.



Nora Cortiñas, one of the Mothers of the Plaza de Mayo, addresses protesters at a march in support of a law to stop the eviction of peasant farmers, Buenos Aires, October 2012. (Photo: GRAIN).

But Monsanto has already been operating under “cooperation” agreements for many years with public institutions in Argentina, Paraguay, Uruguay, and Brazil. It uses the research institutions as cheap scientific labour and as an agricultural extension channel for getting its seeds to farmers. Likewise, many public officials act as the ideological arm of the corporations. A paradigmatic case is that of Argentine science and technology minister Lino Barañao, who loses no opportunity to lobby on behalf of genetically modified agribusiness.

Agribusiness: another type of mining

Industrial agriculture is like mining in that it considers soils to be an inert substrate from which nutrients (proteins and minerals) can be extracted with the addition of technology and chemicals. It has no use for soils as living organisms nor does it ever restore the nutrients extracted.

The soil mining aspects of agriculture are expressed most brutally in genetically engineered soybean cropping. All the propaganda about “no-till” agriculture cannot hide the crude reality that soybeans do not even remotely return to the soil all the nutrients that they extract, nor can no-till methods sustain the soil’s structure and water retention capacity.

In previous reports we have discussed how Argentine soils are being degraded, with millions of tons of nutrients and billions of litres of water being taken away.³³

Here are a few figures for Argentina alone (the numbers are not available for the other countries):

Soybean monoculture without crop rotation causes intense soil degradation, with a loss of 19 to 30 tons of soil depending on management techniques, slope, and weather.

Soybean growing in 2006/2007 (which yielded 47,380,222 tons) involved a net extraction of:

- 1 148 970.39 tons of nitrogen;
- 255 853.20 tons of phosphorus;
- 795 987.73 tons of potassium;
- 123 188.58 tons of calcium;
- 132 664.62 tons of sulphur, and
- 331.66 tons of boron.

Each exported annual soybean harvest also removes 42.5 billion cubic metres of water (data from 2004/2005 season).

33. “[Extractivismo y agricultura industrial o como convertir suelos fértiles en territorios mineros](#)”, GRAIN, *Revista Biodiversidad, sustento y culturas* N° 75, January 2012.

Agribusiness and its corporate media partners

The agribusiness colonization of the region can count on a powerful ally to back it up: the corporate media. The media act as the unconditional communication arm of agribusiness (in return for payment of millions of dollars to buy advertising that fills newspaper pages and radio and television hours).

This agribusiness-media collaboration is designed to convey the following messages:

- The myth that agribusiness is the panacea for world food production problems. The ideas of “progress,” “development,” and societal well-being are deliberately being confused with agribusiness interests.
- The myth that agribusiness is somehow involved with “sustainable development.” Media propaganda turns any agribusiness initiative into a generous act of “sustainable development” by ignoring its real effects.
- The myth that there are no downsides to agribusiness. All discussion or information about societal resistance, scientific or economic debate, or impact on communities and the environment is excluded from corporate media reports.
- The image of social movements as subversive, violent, antisocial, or “stuck in the past.” In this way, these movements are stigmatized and in some cases even criminalized.

Paraguay is perhaps the country where this alliance is most obvious. The UGP is linked to the Zuccolillo Group, owner of the powerful daily ABC Color. This was one of the papers calling most stridently for President Lugo’s ouster. In addition, Zuccolillo is president of the Inter American Press Association (IAPA).³⁴

Agribusiness and climate change

The links between industrial agriculture and the global climate crisis have been amply demonstrated. The figures are alarming: at a minimum, between 44 and 57% of greenhouse gases are due to the



A rural cemetery in the Brazilian state of Rio Grande do Sul, overrun by a soya plantation. (Photo: GRAIN).

agroindustrial chain of production.

It is obvious that a region where industrial agriculture has become so dominant has got to be a major contributor to this global crisis. But it is also clear throughout the region that the conjunction of global problems with local ones such as deforestation is causing severe impacts. Rural areas are experiencing prolonged cycles of drought and flooding. Cities lack the infrastructure to deal with these unprecedented rainfall patterns. The main victims are the urban poor, a large percentage of whom are former peasants from plundered communities.

While there is still a great degree of fragmentation among social movements, it can also be said that they are all attempting to adopt a comprehensive analysis and avoid piecemeal struggle. They all understand that food sovereignty, autonomy, and protection of the common good must be the central themes of any campaign against agribusiness.

It is our hope that this edition of *Against the grain* will plant new seeds of struggle in the Southern Cone, and that they will grow into a powerful movement.

34. *Ibid.* 28.



GRAIN is a small international non-profit organisation that works to support small farmers and social movements in their struggles for community-controlled and biodiversity-based food systems. Against the grain is a series of short opinion pieces on recent trends and developments in the issues that GRAIN works on. Each one focuses on a specific and timely topic.

The complete collection of Against the grain can be found on our website at: www.grain.org/article/categories/13-against-the-grain

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