

The refugees of the agroexport model

Javiera Rulli
BASE Investigaciones Sociales



The refugees of the agroexport model

Impacts of the soy monocultures in paraguayan peasant communities*

In the middle of 2006, an interdisciplinary group in BASE IS began a investigation in several peasant communities in Paraguay. Their goal was to get to understand the dynamics of campesino displacement, and the socio-economic and cultural impacts of the advance of soy monoculture in Paraguay. In addition, this study also wanted to compare the living conditions (to Economical, Social and Cultural Rights) in the places of origin to those of the migratory destinations.

For the purposes of this study, eight campesino communities were differentiated between communities that had come into contact with soy before the 1999/2000 harvest (called "old" communities) and those that had only encountered soy after that date, when the appearance of Monsanto's Roundup-Ready soy transformed the nature of the harvest production cycle ("recent" communities). After that year, the use of genetically modified beans, agrochemicals (particularly the herbicide Roundup), and no-tillage techniques increased astronomically. Surveys were also carried out with migrants residing in four urban areas in Paraguay (the Metropolitan Area of Asunción, the city of Caaguazú, Ciudad del Este and Encarnación), that had been displaced due to the soy model¹.

Soy expansion

In the last decade, Paraguay has climbed to fourth largest soy exporting country in the world and fifth soy producer, contributing 2,2% of the global total production. The surface cultivated reached in the agricultural cycle 2006/2007 reached 2.426.000 hectares, which showed an impressive jump of almost 400.000 hectares over the previous year. With the record harvest of almost 6,2 million tonnes in, and the increasing demand for oil and biodiesel from the European Union, we can expect this expansion to continue accelerating.

*Summary of the book with the same title, the coauthors are: Tomas Palau, Daniel Cabello, An Maeyens, Diego Segovia.

¹ The primary data were obtained from consultations with two specific groups of families; those that remained in rural communities (144) and those that have abandoned their land and settled elsewhere, primarily in urban areas (48). We also interviewed approximately ten informants in each community where we carried out the survey, of which two interviews with neighbourhood leaders in the communities of displaced people and six with other specialists on the subject. The field study in the communities took place between October and December of 2006.

During the 1995-2006 period, the soy crops expanded an average 125 thousand hectares per year, a growth of 191% in one decade. During this period, the surface covered by soy monocultures grew approximately to 1.593.000 hectares. It is estimated² that approximately half of this area consists of family farms that converted to oilseed production, the rest once belonged to campesino families and was appropriated through sale, rent or eviction.

Assuming that half of this land was previously owned by campesino families and that the average family consists of seven members, it means that the total expulsion of campesinos due to expanding soy production reaches nine thousand families per year.

If the soy expansion were to continue until it covered 4 million hectares³, another 143.000 campesinos will be displaced in the coming years. This amounts to more than half of the farms under 20 hectares registered in the 1991 agricultural census.

Live conditions in the campesino communities

The rootedness of campesino livelihoods is strongly based in the right to maintain their identity. This implicates the possibility to sustain in a dignified way their own culture, customs and ways of living, with the existence of independent means of production, social networks and collective ways of organization. Land tenure is a vital part of this, but goes beyond the simple titling of land, it is a holistic concept, that intrinsically links possession and appropriation of territory to the history and permanence of the family, as well as the mode of production and political, socio-economic and political context in which the land tenure operates.

The areas with mayor problems in land ownership were in Alto Paraná and Itapúa, the two departments where soy has been present longest. We can take this as a first indication of the effect of soy expansion on campesino agriculture. Accessing land is hardest in Itapúa, where we registered campesino communities with families living in plots only big enough for a small house, and families subsisting entirely from day-labouring in other farms.

² Last agricultural census was done in 1991.

³ As stated by Mr. Jure Junis, former President of the Paraguayan Chamber of Cereal and Oleaginous (CAPECO)

While the poor access to land was the largest impediment in all communities to the campesino family economy, we didn't find any correlation between farm size and the desire to migrate. Nevertheless, the campesino leaders all suggested that youth are most likely to migrate because it is them, who face the largest difficulties in finding land. They have two possibilities: migrate to the city or, if they want to stay in the countryside, occupy new lands. Family plots tend to be too small to subdivide for future generations, which is why youth migrate in search of seasonal work.

The surveys show that campesino families have a lot of difficulties in the production and the commercialisation of their products. Some of the problems related to cash crops are the low prices, soil degradation and lack of technical assistance to diversify production. Financing schemes and actors behind them are a huge problem for the economy of the campesino families. Campesino leaders highlight that the process of degradation and abandonment of subsistence agriculture has accelerated since 2000. All families traditionally cultivate land to produce their own food, but there is a significant difference between families producing these crops as their main or second crop in comparison to cash crop. The mean of available land for cultivation, for the eight studied communities per family, is 10,7 hectares and the mean area used for self subsistence crops is 2,1 hectares, which is an average of 19.6% of the total land.

The problems often mentioned by campesinos regarding production have to do with climate change; 90,7% state that there are more droughts than before. At the same time, 28,1% believe that rain, storms and wind are more frequent; 64.1% say that lately the heat is excessive and 7,7% affirms that there are longer periods of cold. Summing up, campesinos perceive climate as much more unstable, varying between droughts, floods and extreme temperatures. When asked about the future of their farm, 16,5% express preoccupation due to the climatic uncertainties.

Another problem mentioned is the low price paid for cash crops; 8,7% states that low prices are tilting the balance in favour of self subsistence crops. The main reasons for the failure of the soy crops in the last three years are the low harvest performance of monocultures at small scale, consecutive indebtedness; not being able to pay previous debts and the impossibility of obtaining new credits. In general no one wants to go back to cotton because of the low prices. There is a general feeling among campesinos that the expansion of monocultures implies the degradation

of their economy and they express a sense of threat because of the risks of being forced to abandon their community.

The entrance of soy

“Small producers get caught up in the framework of agroexport production. So they apply for credit, the company gives them credit, all the pesticides and the seeds so that they can plant soy. If soy does not perform, they are left with a huge debt. When they cannot pay the debt because of failed production, then people from the silos come and offer themselves as guarantors to refinance the debt. Later, if the small producers are still not able to pay, the people from the silo pay their debts but take possession of their land. Therefore, all those that get into the agroexport production chain are taking the risk of losing their land” (Peasant leader of Alto Paraná).

Though the introduction of soy cultivation expanded gradually in the different regions, the interviews showed that the expansion took place simultaneously inside the peasant communities generating significant impacts on the production and the psychology of the campesino population.

Leaders claim that the soy system entails impoverishment and degradation for the campesino families in the short term. It was found that when campesino families started soy cultivation, there was a tendency to displace self-subsistence crops, by which these families become more dependent on market factors outside of their control.

Campesinos interviewed agree that soy cultivation requires a lot of capital and that the small producer loses out in the long term. The costs of implementing mechanised soy monoculture together with the inputs required are too high for family agriculture. This weakens the cohesive family patterns because the subsistence farming is discontinued in the long term and there is a trend to look for outside farm work or to migrate temporarily. This phenomenon does not occur with cotton growing families, among other reasons because of the high labour requirements of the activity, which provides employment among the family members, limits the cultivated area and favours the continuation of the auto-consumption crops.

Percentages of area used for soy and cotton in relation to auto consumption by community

Locality	Auto -consumption /Soy	Auto-consumption /Cotton
Parirí	0,05	1,41
Mbocaja'í	0,40	1,58
San Isidro	0,83	3,20
San Miguel (Lote 8)	0,95	2,33
Arroyo Claro	0,62	2,20
Capitán Meza 28	0,76	2,79
12000 Bertoni	-	2,78
Luz Bella	-	1,40
Total	0,70	2,12

On the interviews, soy showed up as the crop that entails most debts; from the total number of indebted people surveyed, 23,7% of debts were related to soy cultivation. In the same way, out of the 30 people interviewed that grew soy at some point, half had debts compared to 15,8 % of people growing cotton.

The easy access to finance for soy seems to be one of the main factors that induce the start of this cultivation by campesinos. At the same time, those interviewed complained that public and private financing goes only to monocultures, specifically soy and cotton. The survey reveals that many credits are given in the way of inputs (seeds and pesticides) for the production which in turn creates a dependency on these products. A San Isidro leader states, *"credits are given part in cash and part in inputs; for example, for a two million credit half a million is received in cash and the rest in seeds and agrottoxins. But later the credit has to be paid in cash plus the interest. This is not a credit, it is rather inputs and money to produce what the silo wants."* In most cases the consumables given have higher prices than those sold in the market.

The 2003 – 2006 droughts caused that most campesinos cultivating soy were left with accumulated debts in several financial institutions⁴. The situation of the campesinos that gain access to credit seems to be in continuous deterioration. A campesino-leader from San Isidro, Alto Paraná denounced the operations of private financing companies as *"a way to speculate with money; normally most people from silos and*

⁴ In the 2006 harvest a total of 1,9 million tones were lost out of the 5.5 million tones forecasted. About one million hectares of early soy production, 55% of the total cultivated surface (La Nación, suplemento Campo, 27-03-2006).

private institutions offer credits to small producers asking for the land as a guarantee, knowing that he will not be able to cover the expenses. Then, a year later, the land is taken away; the real interest is just to take the land.” San Isidro leaders estimate that due to the 140 families with debts in the community, in the next two years as much as 1.500 hectares could be lost. According to them, a high rate of land loss is due to seizures. It is said that most of the local silo owners have land that was expropriated from small producers “because those who had to sell to pay their debts, later migrated.”

Outside farm work

“Mechanised soy technology does not generate employment. A single person can be in charge of 500 hectares and his salary can reach up to 1.500.000 Guaraníes (\$290 USD). In some cases, farm workers are natives of Paraguay because the producer needs to have a good relationship with the local community. However in most cases, Brazilian producers bring over labour from Brazil and pay them subsistence salaries. During the 90`s, many more people were employed in soy cultivation than today. The producer generated a source of income and employed his family, friends and neighbours. However the technological advances developed which meant the end of employment”. (Alto Paraná Leader)

A trend among small farmer observed in all visited areas was the need to look for employment at other farms in order to increase one’s low income due to the poor productivity of their own harvest. On average, 41% of those polled worked outside their own plots in the past year. The lowest employment is registered in Alto Paraná and Itapúa, the principal soy areas. The implementation of the technological packages of transgenic soy and the mechanisation of monocultures implied a drastic reduction of employment offered in the dominant soy areas. Out of all families polled, despite that, 25,7 % have a member that has worked for the soy producers, the 68,7% consider that employment diminished in the region with the implementation of soy monocultures.

In general, men have access to temporary work in the silo or in the agrochemical spraying. Silos only provide employment a few months a year, from December to March coinciding with soy harvest. Workers above 30 years old are not employed in silos. Young workers are required for their good physical condition in order to load the grain rapidly. A young worker from Lote 8 describes this as “a direct exploitation of the young”. In the community of Parirí, in Caaguazú, 22 young workers are employed in high season on the Toledo town silos. The work is exhausting; the

average workload is unloading 1.000 tonnes per day and the day shift is 10 hours. Tasks include unloading, grain selection and feeding the drying ovens. Health and safety conditions are lacking and most workers have breathing problems due to dust and agro-toxins present in grains. The daily pay is 30.000 Guaraníes (6 USD). No protective equipment is provided for fumigation work.

Letting of land

Another way of generating income in the soy dominated areas is by letting the land to soy producers. The study shows that this only occurs within the soy sector and corresponds with the low performance and lack of competitiveness of the campesino production. The campesino lets out the land when he does not trust his own production capacity, if inputs are too expensive and/or when he is highly indebted. Generally the land is let out to producers outside the community and often to foreigners; 11,9% of the families interviewed are letting part of their land to other producers. The average price for renting a hectare is approximately 700.000 guaraníes (137 USD), although it varies from one community to another. Rent agreements usually last for a year but vary from just one agricultural cycle to five years.

The main reasons why campesinos let the land to soy producers seem to be indebtedness and/or the need to increase income and the slim perspective of obtaining enough return with their own production. Letting secures an income once a year and is also a last resource of income for family emergencies, but the amount received never reaches total expenditure needs. With letting the land, the situation of the family changes drastically; Their economic dependence cannot be solved due to the lack of local employment. The impoverishment generated by letting the land leads to the tendency to migrate.

In the long term, letting the land results in impoverishment because it implies the inability to supply food to the family. Indirectly it causes the dismembering of the family as some members must look for employment and migrate. Among the families that have no members that migrated only 6,9 % let out land whereas among those that have members that migrated a much higher percentage, 19,6 %, let their land.

The main social problem related to the letting or sale of the land is the rupture of the communitarian family agriculture dynamics. Letting for soy implies that the agricultural package of pesticides, seeds and machinery enters the community and breaks the community ties and bonds. The main

problem with letting is generally the contamination of the neighbouring lands. Letting to foreigners, according to campesinos organizations, is the main factor generating violence and tension in the community, not only for their eagerness to speculate with the land but also because is very difficult to talk to producers about their indiscriminate crop-spraying.

Land sale

“The Brazilians buy a small parcel, then another one and if one is left in the middle it cannot resist because they come with poisons(...) eventually one sells his land besieged by the toxins”. (Campesino leader from Caaguazú)

The experience of the soy boom that took place, around the year 2000, in the campesino communities was realised in large scale through the sale of the family plots and the migration of campesinos. In general the Brazilians enter the communities renting and buying land, mostly *derecheras*⁵ of 10, 15 and 20 ha. The accelerated selling of plot within a community can generate feelings of insecurity and abandonment in the campesinos, and a process of community domain loss over the territory.

Migration and land sale in communities

Community	Family members that sold land for soy cultivation		
	Yes	No	Total
Parirí	11 61,1%	7 39,9%	18 13,3%
Mbokaja´i	4 23,5%	13 76,5%	17 12,6%
San Isidro	8 47,1%	9 52,9%	17 12,6%
San Miguel (Lote 8)	3 16,7%	15 83,3%	18 13,3%
Arroyo Claro	7 41,2%	10 58,8%	17 12,6%
Capitán Meza 28	7 41,2%	10 58,8%	17 12,6%
12000 Bertoni	- -	14 100,0%	14 10,4%
Luz Bella	1 5,9%	16 94,1%	17 12,6%
Total	41 30,4%	94 69,6%	135 100,0%

⁵ *Derecheras* are irregular land sale of public land meant for Land Reform programs. The transaction takes place without land titles and is illegal.

Coinciding with the presented data, Alto Paraná, Caaguazú and Itapúa are the Departments with the highest figures for land sale and disappearing communities. Campesinos tell that a great deal of the sale transfers concerned *derecheras* of public land (of the IBR⁶ colonization programme) got mainly sold to foreigners (Brazilians, Japanese and Germans). An Alto Paraná leader explains: *“With the lack of attention and the extreme poverty, the campesino feels isolated. There, they (soy producers) come offering 10 millions (\$ 2.000 USD) per hectare catching them (campesinos) between the devil and the deep blue sea. In this way campesinos are stripped off their land. Campesinos then leave with that amount of money (...) an amount he has never seen in his whole life”*.

Community disappearance and landscape destruction

In general, all communities have experienced an important landscape change with the soy expansion: destruction or fragmentation of the natural wild and rural ecosystem that previously surrounded the community. The study shows that landscape destruction has a strong influence on the well-being and the dynamics of the campesino community. Massive deforestation, community disappearance and isolation provoked by monoculture expansion are several of the factors registered in the study. All these determine the settling and future perspectives of the campesino community residents. The interviews reveal that residents of the last campesino areas have the sensation of being constantly threatened and condemned to extinction.

A campesino expelling economy

The information gathered in this study managed to identify the dynamics of the degrading campesino society and the loss of community land. The last wave of soy expansion, initiated in 2000 with buying and renting of land by large producers, started a process that undermines the communal cohesion and the campesino community, resulting in the exodus of small producers in the long term. The sale of land in many communities is linked to property speculation and civil servant corruption. The exponentially increased value of land, valued in dollars, is caused by soy cultivation. It is an irresistible temptation and leads to the migration of campesino families. The corruption at INDERT regarding the transfer of land to soy producers, much criticized by all campesino organisations, is related to the intrinsic corruption of many state institutions in Paraguay.

⁶ IBR is currently named INDERT.

The entry of the soy economy into the community, both through renting and/or sale of land, is a degrading factor for the communitarian cohesion for the following reasons: it generates enmity and competence among neighbours, implies the entry of large scale producers into the community, affects the health of inhabitants, affects neighbouring campesino production due to harvest failure and loss of animals.

When families feel besieged by soy cultivation there is a marked tendency to sell the land and migrate to poor remote, but more populated campesino areas. This is confirmed by campesinos we interviewed; It demonstrates that the population feels cornered by the monoculture model and that they prefer to keep their campesino identity and aspire to reside in a rural society that protects them. Offered very little choice, most end up migrating to cities.

Community leaders consider the debt mechanism as one of the main methods of gradually taking possession of the campesino lands. Campesino organisations rejects these massive financing plans to cultivate soy with soy buyers acting as guarantees. The financial contracts are fraudulent. In some cases, the debtor does not even get a copy of the original lending agreement. This sets of a speculation spiral; first the campesino sells his cattle to repay the loan and when that is not sufficient, he ends up letting his land to the same soy buyer guarantor. Eventually he leaves the community looking for work elsewhere.

Debt as a lever to expulsion is confirmed by the displaced population study, where a third of displaced persons showed some level of debts. The high level of debts and the inability to pay was confirmed in the soy areas. The only thing that will save campesinos from losing their land is not having official property landtitles. The World Bank projects (2007) fomenting fast entitling of land as part of Land Reform, meant to put an end to current irregular land tenure in most communities, but could easily lead to a massive land transfer from campesinos to soy producers and would become a whitewash for the agribusiness sector. In the same way, international financial institutions such as IADB (Banco Interamericano de Desarrollo) and World Bank, promoting micro-credits and supporting private financing agencies, are accomplice and responsible together with the agribusiness for the rural expulsion process.

Environmental and Human Health

"We see the consequences that the agrochemicals have on our community. Every season, our animals become sick - just when they start

cultivating the soy, our animals, chickens, ducks, all die. When they spray the herbicide on the soy plants, it affects the animals and the people. We have found that many children have diarrhoea and stomach problems, men have liver problems, and women miscarry.”(Leader of Lote 8)

Environmental Health refers to the health of the human and the ecosystems interacting in a territory. It involves how human beings interact with their environment, trying to look at the complete, dynamic system that affects human life – including everything from economics to politics, from technology to cultural issues. The concept of environmental health looks at how all of the varying aspects of the environment that affect human health; for example the correlation between environmental degradation and stress levels. It is concerned with a variety of factors that affect the basic quality of human life and sustainable development (Curiel and Garibay Chavez, s/f).

The destruction of the forests has affected the subsistence of the population decreasing access to non agricultural food resources from fishing and hunting and non food resources such as wood, medicinal plants, honey. The lack of wood is a great concern to the local population who depends on this wood for building homes.

The depletion of the riverbeds, and contamination of ground waters in soy-growing regions and lowering water-levels in family wells are other phenomena registered. The massive use of agrotocics has led to contamination of the water ways and the upfilling and disappearance of many streams. The expansion of soy monoculture has also contributed to the drying out of wetlands.

The study reveals a complete absence of infrastructure and health services necessary to confront this situation of constant pesticide exposure. The situation is aggravated by the degradation of the small farm -economy which results in a lack of economic resources to allow people to afford private health care. The contamination causes economic losses in the production and makes people sick, producing in the long term a process of impoverishment and rural expulsion.

In the eight communities studied, 78% of families interviewed said that they suffered from health problems generated by the crop sprayings, 63% said they agrotocics spraying always affected the water they drink. 60% of the “displaced” families in the cities determined that the water in their rural community was contaminated with agrotocics. The majority of the displaced families lived in the vicinity of soy monocultures and they

considered the crop spraying to be one of their main reasons for leaving their homes as well as the absence of protection and lack of infrastructure in rural areas – such as educational and health resources.

The most common health problems in these communities are related to the crop spraying: ailments of the respiratory and digestive systems and headaches. Also, in the course of the research many spoke about miscarriages, birth defects (such as children born without arms or legs, with lungs outside their body, hydrocephalia, hare-lip, etc.) The contamination also results in the deregulation of the metabolism, malnutrition, stress, gastritis, and psychological problems. These problems are confirmed in general by the rural health centres, despite that there is a complete lack of resources and training.

Perception of how soy cultivation affects human health

Reported sickness or not feeling well	Cases	% *
Not at all	31	22,3
Symptoms related to chronic intoxication		
Headaches/migraines	80	57,6
Vomiting	39	28,1
Stomach Ache	34	24,5
Diarrhoea	24	17,3
Dizziness / Fainting	23	16,5
Fever / Cold /Throat Pain	13	9,4
Eye pain/vision problems/ Conjunctivitis	12	8,6
Skin problems/rash	12	8,6
Respiratory Problems	5	3,6
Fatigue / weakness / tiredness	4	2,9
Deformations / Malformations	3	2,2
Swelling	3	2,2
Panic attacks, anxiety , shaking	3	2,2
Nose Bleeding	1	0,7
Hepatitis	1	0,7
Children hunger	1	0,7
Symptoms related to severe intoxication		
Vomiting	39	28,1
Dizziness / Fainting	23	16,5
Panic attacks, anxiety , shaking	3	2,2
Nose Bleeding	1	0,7
Blindness	1	0,7
Death	1	0,7
Total 139 answers out of 291 valid cases	291	

*The percentages were calculated from 139 families.



In communities in the states of Itapúa and San Pedro (not in the states of Alto Paraná and Caaguazú) we asked residents about the distance between soy fields and their homes. Out of the 72 families consulted, more than half of the families lived less than 50 meters away from a soy field⁷. The large majority of families believe that the fumigations affect their health (72%) and that there's a relationship between proximity to soy fields and the illnesses they described having.

The agrochemicals spraying impacts the biodiversity, agriculture production and health. In the long terms it aggravates the poverty of families through forcing them to leave their land. The interviews show that the soy growers do not respect any or the minimum security parameters to protect the homes of farmers. The soy fields are found near homes, schools, and cemeteries. Farmers' organizations inform in the surveys that it is unfruitless to make the soy growers to respect homes and schools. Many schools are found encircled by soy-fields. The barrier distance are usually be between 20 and 30 meters, but in the majority of cases there is not even a curtain of trees available.

The indiscriminate fumigations are the number one reason for the death of farm animals in rural communities; 50,4% of families admitted that they had lost their animals because of this, chicken and pigs are more affected in comparison to cattle. The crop spraying have affected 60,4% of plantations and of these 58,5% suffer weekly cropspraying, 35,4% monthly, and 6% daily. The campesino inform as well that the fruit trees are also affected by the cropspraying - the spraying stunt the maturation of the flowers and the trees don't develop fruits.

The indiscriminate crop spraying is a result of the transgenic technology that is currently being applied. The intensification of the monoculture at a huge scale, along with transgenic technology, and the lack of a rotation cycle generates an ecosystem that does not permit coexistence with other crops or other farmers. While the soy grower tends to live in towns that are significantly more protected, the small farmer is continually exposed to the clouds from the spraying of the agrottoxics and contamination of the environment; 53,6% say that their own farms have been affected by the fumigations, and that the herbicide that's most commonly used is Round-Up. The plants most affected tend to be subsistence crops that are

⁷ Possibly this percentage is similar to the one that would have been found in the communities of the two other departments. Even to that of other campesino communities that border soy fields over the country. In Paraguay precautionary measures and distances are not respected. Safety curtains are not established which exposes the families directly to agro-chemicals.

crucial for the family nutrition. One person from Itapúa explained *“There are many that sell their lands, after the large farmers spray herbicide and this kills the cassava and then the campesino can’t produce anything.”*

Soya and violence towards the campesino communities

The interviews reveal that the entrance of soy to the communities means violence through diverse mechanisms. Half of the families consulted confirm this tendency. People register higher presence of armed forces in the communities after the entrance of soyproduction, specifically militaries and policemen; in all the communities less than half the consulted confirm this tendency. The presence of armed civil men, gunmen is as well perceived as higher in the context of soy. In general, the entrance of armed men, gunmen or police, has taken place when the population has resisted the crop sprayings. In some cases settlers have been arrested because the defended their crops and their houses.

Another violence wave takes place when the peasant organisations react towards the illegal selling of land to soy producers and do actions to recuperate the plots. In these situations, the authorities in general defend the soy producers and the communities have suffered violent evictions. It is worth mentioning, that the organisation choose the way of non violent direct action but also takes legal actions. However, in few cases the organisations have succeed.

The most violent incidents took place in the mobilizations of the peasant organisations in 2004, when at national level all the peasant organisations coordinated landsquatting actions and defended the communities against the crop spraying. This peasant uprising, which had as one of the main slogans the rejection to the soya model, was violently repress resulting in the militarisation 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. At the time of the research, the same problems continues but in many places the inhabitants don't protest as actively as they did years before.

On the process of expulsion

“The first ones sold due to health problems. Here in the country we don’t have resources, and if there is a sickness, no one is going to let their family die. If they don’t have resources, they have to find everything they

can to save a life. Others sold because they saw what was happening to the people in other places and they got a head start to escape the things that were coming with the expansion of the soy”(Resident of Parirí)

Most migrants in the Paraguayan cities are campesino or of campesino origin. In analyzing the destination of the migrant families of the sample community of our study, one observes that the greatest number of emigrants is displaced within the borders of the country, which would indicate that internal migration is more common to this sector of displaced peoples than international emigration. Among the most frequent migrant destinations are Asunción, Encarnación, Ciudad del Este, Caaguazú and, abroad, primarily Argentina and Spain.

The volume of displaced people estimated in this study can be considered significant given that out of 144 families considered in the sample of the communities, 39,6% has at least one member who has migrated. The presumption that youth are more likely to migrate is verified in the sample study, out of the total number of emigrants classified by the families, 85,6% were younger than 25 years old when they left their community.

The polls demonstrated that migration is produced with greater intensity in the communities with higher levels of soy and principally after the year 2001; 58,6% of the families of those polled who had migrated had done so after that year. When two more years are added to this period, which is to say, if migration is considered since 1999, it is considered that 72,1% migrated in years after that. This period coincides with the entry and expansion of genetically modified agriculture in the country. It can be affirmed, then, with a certain grade of precision, that the entry of soy in the communities is an important factor that drives the migration of its residents.

The campesino population that is affected by the expansion of soy, does not leave due to personal motivation, which is to say, because they are attracted to another place. Rather this population is forced to leave, obliged by circumstances; either they need to sell or let their land to gain profit for maintenance, to be able to pay debts for production financing, or to directly escape cropspraying or groups of gunmen that work for the soy farmers. In this respect, all of the “already displaced” confirmed that their houses in their places of origin were located relatively close to some mechanized soy plantation.

Two thirds of the total of the displaced people lived 100 meters or less from a soy plantation. As well, 39 people out of the total 42 polled

in urban areas, identified soy as the crop that was most sprayed in the community. Practically 60% point out that the water ways in their communities were found to be contaminated, to some degree, due to the agrototoxic sprayings. The majority attribute their exit from the community in some level to the pesticides sprayings on soy monocultures. Equally, it is interesting to observe that, according to them, 33,3% of the lands they left in their communities, are presently planted with soy.

It is important to emphasize how the majority of the displaced perceived a decrease of job offers in the community linked to the entry of the soy crops. Exactly two thirds of those consulted thought that there was less work in the area since the entry of the monoculture. This is in sharp contrast with the discourse held by the government and involved business groups that job vacancies increased with the “modernization of agriculture.”

Protest of Landless peasants in Paraguay



The borders of the soy monocultures advance by means of the strategy of appropriation of rural territories. This generates new social situations in the communities that remain bordering on or within them. The polls in the communities demonstrated that the families that perceive fewer threats of the soy model are those that are least likely to migrate, while, insofar as the perception of threats rises, the intention of migration rises as well.

A rate was developed to measure the tendency to migrate in relation to the factors of expulsion that soy monoculture generates. The aim of this is to measure, for each case, the threat that soy represents in the community. To obtain the rate, the following indications were considered:⁸

- Decrease in job availability since the entrance of soy
- Acquaintances with health problems
- Personal health problems related to the pesticide sprayings
- Fumigations affecting small animals
- Pollution of water sources by pesticide sprayings
- Neighbours that left the community due to pesticide sprayings
- Problems after pesticide sprayings that caused neighbours to migrate
- Changes in hunting in recent years
- Changes in fishing in recent years
- Increase of acts of violence linked to soy
- Soy producers are mainly responsible for these acts of violence
- Increase in the presence of assassins or armed police with the entrance of soy

Relationship between the factors of expulsion and tendency to migrate

Factors of expulsion	Members considering migrating				Total
	0	1	2	More than 2	
1	32 88,9 %	3 8,3% 21,4%	1 2,8% 16,7%		36 100% 25,2%
2	60 85.7% 51.7%	5 7,1% 35,7%	2 2,9% 33,3%	3 4,3% 42,9%	70 100% 49%
3	24 64.9% 20.7%	6 16,2% 42,9%	3 8,1% 50%	4 10,8% 57,1%	37 100% 25,9%

As one may observe in the table, as the perception of threats related to soy monoculture increases, the proportion of family members who want to migrate increases.

⁸ When the response of the interviewee coincided with the original hypothesis (the existence of the threat) the response was given the value 1. When the response did not coincide, it was given a 0. A new variable was developed by means of the creation of three categories for the rate (from 0 to 4, from 5 to 8; and from 9 to 14 with values 1, 2 and 3 respectively) and that was cross referenced with the families' propensity to migrate.

Conditions and difficulties of displaced people

Once the displaced person is set up in his migratory destination, as well as suffering the typical disadvantages related to abandoning a home, in the majority of cases he maintains in a situation of unfulfilment of his economic, social and cultural rights (DESCs). In this sense, it is significant that of the group of displaced people that was interviewed in the urban areas, 57,2% declared that their lives were equal to, or worse than before migrating. In reference to the kind of dwelling to which the displaced occupy in their places of migratory destination in comparison with the kind of dwelling they had in their community of origin, it has been found that, in the city, the emigrated families live in dwellings of poorer quality but with more commodities than their original homes.

The kind of work to which the displaced person usually has access, as well as being generally precarious, is in many cases informal and always low. After analyzing the interviews carried out in the communities, a significant 34,5% of interviewees find themselves occupied in the "domestic employee or nanny" sector, as this is the labour that employs the most emigrant families. For the men who migrated to cities, the most common work is that of construction.

Information has also been obtained about remittances sent by the displaced⁹. It was found that 47,2% of displaced sent money to their families regularly; 36 families are beneficiaries of these remittances, which constitute 25% of the families in the study, or 63,2% of those with a migrated family member. Translated to monetary values, the average monthly support of each emigrant is 64.000 Guaraníes (approx. 10 USD). The irregularity and average quantity of the remittances hints that the economic situation of the displaced people cannot be considered buoyant. From this, it can be inferred that the sending of money supposes, in many cases, an enormous effort that aggravates the precarious situation of the displaced person.

A fundamental question regarding the situation of those displaced to cities, and which is directly related to the cited statistics of urban poverty, is the fact - corroborated by the interviews of the displaced peoples and the different interviews with qualified informants – that the great majority of the *campesinos* displaced to the cities end up living in the so-called

⁹ Of the total 156 identified members that have left their communities, precise information has been obtained about 147.

“marginal neighbourhoods”. The process through which the displaced end up passing through to become a part of these “neighbourhoods” can vary according to each case. In this way, according to the explanation of Father Oliva, member of the Youth Parliament and a great expert on the southern zone of the great *Bañado* of Asunción (banks of the Paraguay river populated by marginal neighbourhoods): *“In the bañado everyone comes from the countryside. Some 60.000 residents in all the Bañado of Asunción. The displaced people direct themselves in the first place to the metropolitan zone, renting some space with the money that they have saved or have from the sale of their lands. But because they have few resources, in little time they find themselves obligated to displace themselves to the peripheral zone, coming to integrate into the number of people that live in the bañado.”*

A process of double expulsion can then be discussed, in the first place that which causes the campesinos to displace themselves to the city, and in second place, that which pushes them to leave the city to integrate themselves into the shanty towns.

Conclusion: violation of Economic, Social and Cultural Rights (DESC) as a main factor for the expulsion of the rural population

According to the results of this investigation, the different impacts of the advance of the soy model on the Paraguayan campesino society could be identified in the general frame of *Economic, Social and Cultural Rights* (DESC by its Spanish acronym) violations that repeat themselves along the degradation process of the living conditions and the expulsion of campesino population in the agro-export model. The displacement of the rural population that abandons their community of origin, should be considered as the most visible of the extreme consequence of the complex process of rights loss in Paraguay generated by the expansion of the monoculture model of mainly soy crops for export. Families and individuals that are expelled from their communities because of the degrading living conditions are often suffering denial of the most basic rights.

These forced displacements of campesino families, whose basic rights have been violated, have important consequences for the rest of Paraguay’s inhabitants as they are the ones that produce market food products to sustain the population. In this way rights violation advances from the expelled to the rest of the population whose basic right to a healthy diet is denied in the long term.

This view requires drifting from the identification of the migration process as an ill on its own. The decision to migrate, when taken in freedom and not forced by the basic rights violation of an individual, is reasonable and should be accepted and defended. It is precisely in DESC rights denial where the migration should be understood as a forced expulsion process, an inevitable consequence of the slow degradation of the living conditions in the place of origin. Therefore, expelled rural population should be considered as refugees of the agro-export model.

The transgenic soy monoculture transforms agriculture into an industrial process that converts the countryside into an uninhabitable production territory that is not compatible with traditional family agriculture. Campesino leaders clearly identify cropspraying as the main factor for expulsion. The soy monoculture model does not respect the rural population health rights, fundamental and essential to be able to exercise all other basic human rights. The right to health must be interpreted as an inclusive right that not only covers the appropriate health attention but also the access to clean drinking water, adequate sanitary and environmental work conditions, the supply of healthy food and diet, appropriate housing, access to education and information and questions related to health. The State should take preventive action regarding the exposure of the population to toxic chemical products and specifically protect the right to live in a healthy habitat.

This study demonstrate that the main efforts of the peasant organisations are towards the retention of the population in their origin communities. In the harsh conditions peasant population are facing, there is clear approach amongst the members of those organisations that feel greater communitiy cohesion and consequently feel more backed up. To be or not to be a member of an organisation in the current rural context is directly linked with the probability of migration, which makes clae that the peasant organisations are playing a key role for the population to remain in their traditional territories.

References

CAPECO (2006). Producción de soja 2006. Asunción. Cámara Paraguaya de Exportadores de Cereales y Oleaginosas (CAPECO).

DGEEC (2004). Censo nacional de Población y Viviendas. 2002. Fernando de la Mora. Dirección General de Estadística, Encuestas y Censos.

Garibay Chávez, Ma. Guadalupe y Curiel B., Arturo (s/f). Salud Ambiental, campo de la complejidad ambiental. En, Revista electrónica Ideas Ambientales. Edición N° 2. http://www.manizales.unal.edu.co/modules/unrev_ideasAmb/documentos/IAedicion2Art15.pdf

OSAL (2004). "Cronología de conflicto setiembre – diciembre 2004. Paraguay". Mariana C. Fassi, sistematizadora. En, Observatorio Social de América Latina. Año V N° 15. CLACSO.

Palau, Tomás y Ma. Victoria Heikel (1987) Los campesinos, el Estado y las empresas en la frontera agrícola. Asunción, BASE-PISPAL

Pedretti, R. (2006) Expansión futura de la soja en Paraguay: Implicaciones para la seguridad alimentaria, desarrollo rural y políticas agrícolas. Asunción. Versión preliminar para discusión.