Agriculture, Food security and nutrition, exports, land, development models, transgenic soy

JULIO PRUDENCIO BÖHRT

JPrudencio@megalink.com https://Julioprudencio.com

RESEARCH SYSTEMATIZATION 2015 - 2019

PRESENTATION

The present work is a compilation of some studies that the author has been carrying out over the past few years, about issues related to the agri-food system in Bolivia.

The studies were carried out between the years 2015-2019, so their validity is current in several of the analysis, approaches, hypotheses and diagnosis performed.

The author has decided to combine them in a single volume, with the intention that the English-speaking reader can have an approximate idea of the Bolivian reality, of that complex and heterogeneous reality that characterizes the country, from the perspective of the agri-food system.

The transcribed studies cover various topics:

. The present effects of the “food security and food sovereignty” economic policy implemented by the Evo Morales government are analyzed in detail, in terms of food imports and their effects on the country's dependence index, and especially on production indigenous and peasant.

. The implementation of the transgenic soy complex in the east of the country and its consequences are also analyzed, highlighting the different actors involved, especially the peasant movement called "Intercultural."

. Overweight and obesity, the result of poor diet, is another of the studies carried out, showing the new trend that has appeared in the country for some years, showing too, that this does not only correspond to rural, illiterate, income-lacking or women / children as commonly say.

. The lack of land to peasant populations has been raised for many years as the main obstacle to development, however the main problem is not only that, but the rural development model implemented in the country.

. It also analyzes the prioritization of the development model from 2005 to 2019, which consisted of returning to international trade, that is, propose the maximum of exports, including the subordinating of the national food system.

. Finally, there is an international evaluation of the implementation of the Human Right to Food in Bolivia, carried out by a team of consultants of which the author was part as the main consultant of the national team.

INDEX

VII. THE HUMAN RIGHT TO FOOD IN BOLIVIA
Report of an International Fact-finding Mission

THE IMPORTS OF FOOD AND ITS EFFECTS ON THE INDIGENOUS AND PEASANT PRODUCTION IN BOLIVIA

Julio Prudencio Böhrt
La Paz, September 2019

1. INTRODUCTION

The purpose of this brief research is to determine the effects of food imports on the national food system and, above all, the implications for peasant and indigenous production.

The neoliberal economic policies implemented in Bolivia until 2005 represented a failure in the socioeconomic development of the country which led to a sharp change in economic policy for the new government, which propose the recovery of productive resources, the nationalization of companies, the redistribution of income and the impulse to national production, thus favoring internal growth, among others.

Initially, the policies of the new government as from 2005 were of liberating inspiration and of food sovereignty, implemented under the tutelage of the State as the main social, political and economic protagonist through a series of legal provisions and instruments that favored the production peasant family. It highlights the creation of state food companies to supply the market, the priority to the domestic market before export markets, subsidies, programs / funds supporting domestic production, price control and other direct State interventions.

In that first moment, a series of laws and regulations[1] were promulgated that clearly favor the sector of indigenous peoples and small farmers, such as greater land registration and titling in the west of the country and the titling of TCOs.

In a second period from 2010 to date, a set of social forces emerges - agribusinesses from the east, importing food companies, capitalist peasant producers from the east - who interact with the State, significantly influencing agrifood policies , influence that translates for example in the expansion of transgenic crops prohibited by the Political Constitution of the State –PCS (the permissibility in the production of transgenic corn), promotion of the use of agrochemicals and especially new Trade Agreements with different countries to promote agricultural exports (quinoa, beef and pork, and transgenic soybeans among others) and in parallel the unrestricted opening of imports to all kinds of processed foods and direct consumption; of raw materials for the food and agrochemical inputs manufacturing industry, from all parts of the world.

This new policy of unrestricted trade opening to imports, contradicts the initial postulates of government policies on Food Sovereignty, Living Well, Caring for Mother Earth, supporting organic production and other approaches contained in the various laws and even in the new Political Constitution of the State (2009) and has a series of repercussions on indigenous and peasant family agriculture.

In a first section, food imports, imported food groups and major tendencies are examined. Subsequently, the consequences of imports on national production, consumption, industry and others are examined to finally examine imports and their impact on peasant production. The last paragraphs refer to small conclusions and public policy recommendations.

[1] For example, the "Law on community reconstruction or new agrarian reform law", the "Mother Earth Law (which establishes non-polluting production processes…. respect for the regeneration capacity of the land… conservation of the life systems of the land ... prevent risk conditions, among several others); the "Law 144 of the agricultural community productive revolution"; the "OECAS-OECOM Law for the integration of sustainable family farming and food sovereignty"; the "Law of promotion and support to the irrigation sector for agricultural and forestry production" among others.

2. THE FOOD IMPORTS IN BOLIVIA

2.1. The food imports in the general context of imports

In recent years, starting from 2010, Bolivia has greatly increased its imports in general. In that context, food imports have a growth rate higher than the total import index.

Unfortunately, the lack of updated and detailed information limits the analysis because the most up-to-date information available is general and does not contain disaggregated information on food imports. The available data is only until 2016, as presented in table 1.

Table No. 1
THE FOOD AND DRINK IMPORTS (2000-2018)($us)

Imports	2010	2011	2012	2013	2014	2015	2016	2017	2018
1. National Total Imports	5.603.874	7.935.746	8.590.086	9.699.046	10.674.046	9.843.078	8.515.082	9.308.500	9.995.900
2. Total imports Food and beverages	391.093 (100%)	569.550 (100%)	570.647 (100%)	648.048 (100%)	741.981 (100%)	610.097 (100%)	634.159 (100%)	678.400 (100%)	675.300 (100%)
2.1. Food for population consumption	250.091 (63.94%)	354.017 (62.15%)	380.275 (66.63%)	463.961 (71.59%)	493.302 (66.48%)	453.362 (74.30%)	442.802 (69.83%)		
. Basic	17.869 (7.14%)	22.640 (6.39%)	23.521 (6.18%)	33.734 (7.27%)	33.813 (6.85%)	39.177 (8.64%)	39.815 (9.0%)		
. Elaborated / processed	232.222 (92.86%)	331.377 (93.61%)	356.754 (93.82%)	430.227 (92.73%)	459.489 (93.15%	414.185 (91.36%)	402.987 (91.0%)		
2.2. Food (source materials) for the food industry	141.002 (36.04%)	215.533 (37.85%)	190.372 (33.37%)	184.087 (28.41%)	248.679 (33.52%)	156.735 (25.7%)	191.357 (30.17%)		
. Basic	26.179 (18.57%)	50.496 (23.42%)	55.285 (29.04%)	92.202 (50.08%)	121.498 (48.85%)	26.235 (16.73%)	48.256 (25.21%)		
. Foods Elaborated / processed	114.823 (81.43%)	165.037 (76.58%)	135.087 (70.96%)	91.885 (49.91%)	127.181 (51.15%	130.500 (83.27%)	143.101 (74.79%)		

Source.- www.INE,gob.bo

From this table we can conclude that in 2010 food imports represented 6.97% of the total, while in 2016 they represented 7.44%; in 2017, 7.28% and 6.75% in 2018. In monetary terms, that means that in 2010, of a total of US $ 5,603,874,000 of the total imported goods, imported food and beverages meant US $ 391,093,000. In 2017, total imports represent US $ 9,308,500,000 while food imports US $ 678,400,000 (See table No. 1); that is to say that while total imports grew 1.51 times more; food imports grew 1.72 times more.

Imported food and beverages are intended both for the consumption of the population and for the food manufacturing industry (source material).

Imports for the consumption of the population represent the majority of imports with respect to source materials, an aspect that deepens as the years go by.

In 2010, imports for consumption in general represented 64% of the total (US $ 250 million) while in 2015 they represent 74.3% (US $ 453.3 million) and in 2016, 69.83% (US $ 442.8 million). In contrast, food imports for the food manufacturing industry (source materials) in 2010 represented $ 141 million while in 2016 they represent $ 191.3 million.

Of the *total food and beverage imports for the population*, processed foods represent, in terms of value, the majority of these imports. While in 2010 they represented $ 232.2 million, in 2016 they represented $ 402.9 million (increased 1.84 times more). On the other hand, staple foods accounted for US $ 17.8 million in 2010 and 20016 represented US $ 39.8 million (ie increased 2.23 times more).
In *food and beverage imports for the national industry*, processed foods also represent more than staple foods, although with a growth rate that varies widely: representing 81% of the total in 2010 and 50% in 2013 , they represent 83% in 2015 and 75% in 2016. In absolute numbers, they increase from US $ 114.8 million in 2010, to US $ 143, 1 million in 2016.

In general terms and in the period considered (2010-2018), as shown in Table No. 1, imports of basic foods represent less than imports of processed foods, however they have a very high growth rate because they go from representing 11.26% in 2010 to 14.23% in 2017 and 12% in 2018, which has a series of repercussions at the level of domestic food production, especially food from the peasant family economy, as analyze later.

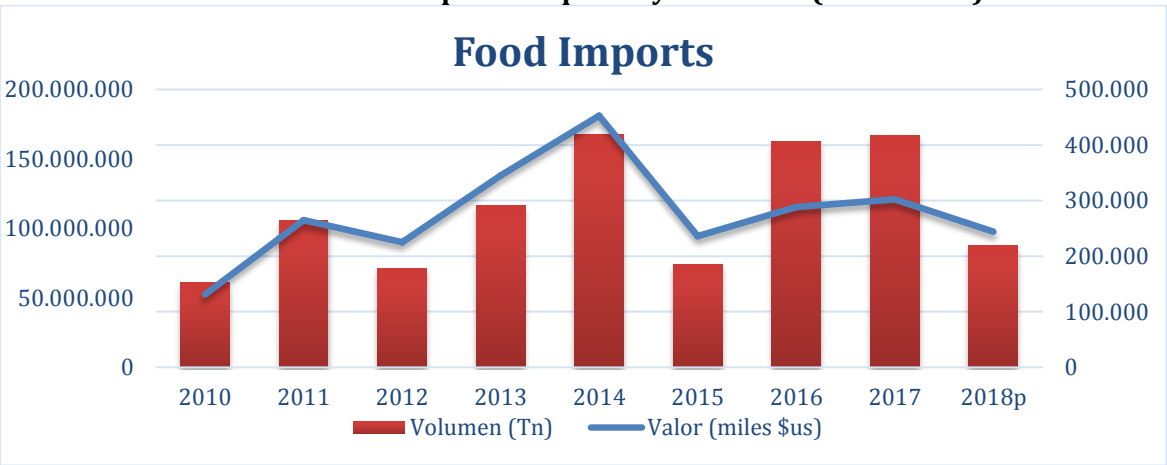
2.2. The increase in food imports and main trends

Food imports show a growing trend in recent years as they go from US $ 391 million (2010) to US $ 678.4 million (2017) and US $ 675.3 million (2018). That is to say that between 2010 and 2018 food imports increased 1.72 times more. In those years, the accumulated represented US $ 5,519,275.000.

In terms of volume, imports show a general tendency to increase, although with some variations depending on the years. According to the National Institute of Statistics (NIS), the volume of food imports in 2010 was 151,973 tonnes that rose to 416,459 tonnes in 2017 and 218,993 tonnes in 2018, which means that between 2010 and 2018 food was imported by an amount of 2,532,962 Tm[2] in the 9 years considered (see Chart No. 1).

[2] Without considering the contraband that, according to various unpublished of NIS studies, represents up to a third of legal imports.

Graphic No 1
Evolution of food imports in quantity and value (2010-2018)



Source.- Built based on INE data

2.3. The main imported food groups

Food imports are classified into 10 food groups (see table No. 2), with a permanent increase since they have gone from a value of US $ 412.6 million (2010) to more than US $ 689.8 million (2016)[3], that is to say that in those 6 years they increased 1.67 times more.
The majority of imports are generally concentrated in 4 food groups: cereals; food prepared as comestible; legumes and fruits; and finally the coffee/tea/species group.

The group of cereals and cereal preparations represent the majority of imports, although their participation in all imports is decreasing over the years since 41.31% in 2010 went to 34.33% in 2016.

On the other hand, the group of "various prepared and divers foods" increases gradually as they go from representing 19.54% of the total in 2010 to 22.65% in 2016[4]. Only these two food groups represent 57% of the total imported.

The rest of the imported food groups have a small growth in their percentage relationship with respect to the total imported food: for example, the group of imported legumes went from representing 6.4% in 2010 to 7.2% in 2016.

The situation is different if the evolution of the total value imported in each food group is analyzed. For example, the group of dairy / eggs and the group of legumes / fruits increase almost double (1.88 times more) in the period considered as they go from US $ 13.7 million (2010) to US $ 25.9 million (2016) and from US $ 26.7 million to US $ 50 million respectively.

[3] An important aspect to highlight is that the statistical figures of food imports presented by the National Institute of Statistics are not the same when the value of imports by food group is analyzed in detail than the value of food imports in general , as shown in table No. 2

[4] Unfortunately, the statistics of the INE change permanently so there is no adequate continuity in them. According to a study on food imports (Prudencio J. 2018 "The agri-food system in Bolivia 2005-2015") in 2005, the main groups of imported foods were cereals (wheat, wheat flour and cereal derivatives) that represented US $ 128.7 million (53.14% of total imports). Ten years later (2015), Prepared Foods represent the first group of imported foods with almost 162 million (25% of total imports), a trend that remains in 2018.

Table No. 2
FOOD IMPORTS ACCORDING TO PRODUCT GROUPS (2010-2018)
(thousands of $us)

DESCRIPTION	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total food and beverage imports	391.093	569.550	570.647	648.048	741.981	610.097	634.159	678.400	675.300
Food imports according to food groups									
Meat and meat preparations	1,687	3,873	5,895	5,988	7,696	9,507	9,547		
Dairy products and poultry eggs	13,775	18,887	23,070	26,134	28,094	27,561	25,925		
Fish (not including marine mammals), crustaceans, molluscs and aquatic invertebrates and their preparations	10,705	17,905	16,456	18,130	19,056	21,916	19,608		
Cereals and cereal preparations	170,456	217,445	210,527	246,085	335,832	195,547	236,853		
Legumes and fruits	26,748	32,914	36,844	45,409	45,885	51,496	50,106		
Sugars, sugar and honey preparations	23,500	108,828	33,918	34,497	36,616	35,817	33,142		
Coffee, tea, cocoa, spices and their preparations	29,559	38,372	44,351	43,779	49,945	47,946	49,211		
Soy cake, sunflower cake and cereals	13,571	16,509	20,803	23,431	26,944	32,883	36,367		
Miscellaneous comestible products and preparations	80,633	103,127	125,154	145,710	152,832	143,385	156,295		
Beverages and Tobacco	41,974	50,895	72,641	74,619	67,652	78,904	72,802		
TOTAL IMPORTS BY GROUPS	**412.608**	**608.755**	**589.659**	**663.782**	**770.552**	**644.962**	**689.856**		
Seed and oilseed imports	7,680	13,346	17,471	15,412	12,202	12,370	11,002		
Imports of brute animal and vegetable products	11,655	13,827	13,740	14,194	15,591	17,837	18,131		

Source. www.INE.gob.bo

3. THE CONSEQUENCES OF INCREASING FOOD IMPORTS FOR THE NATIONAL FOOD SYSTEM.

The increase in food imports has a series of consequences and implications for the all national food system, as briefly analyzed below.

3.1. In the national agricultural production

The increase in food imports has generated a general problem in national, urban and rural markets, where all kinds of food from external sources are found, at all times of the year, generating unfair competition for national production, especially for the low sale prices and for the entry of food and contraband products. The producer lacks information about prices in other markets, product demand, product quality, durability, etc.

To this is added the fact that in various producing regions of the country there are not yet adequate production conditions (soils are depleted, lack of water for irrigation, lack of technical assistance) and transport / transfer of products, excessive levels commercial intermediation; and sales prices do not cover production costs, among others.

Given this situation, agricultural producers are choosing to stop growing the basic consumption food of the Bolivian population and dedicate themselves to producing export products. Some studies (Prudencio J. 2017) have already shown that in the east of the country for example, they have stopped producing vegetables, fruits, cereals and others

because they produce transgenic soy[5]. In the west of the country, Oruro and part of Potosí, producers have stopped producing potatoes, barley and others for producing quinoa for export[6].

As not all producers can produce export products, many seek to produce faster through the excessive increase of agrochemicals[7], as is now happening in much of the La Paz highlands (Patacamaya region for example), where they have introduced more agrochemicals into Potato production, without measuring or perceiving the damage that is being caused to the earth and also in the quality of the product.

3.2. In the national manufacturing industry of processed foods

Another incidence of imports is in the national food processing / manufacturing industry[8] that increasingly has to use more imported raw material.

In that sense, two aspects stand out. First, the high imports of inputs for the national food industry that do not cease to increase despite the country's great agricultural potential. Between 2010 and 2016 they increased from US $ 141,002,000 to US $ 191,357.00; that is to say, they increased 1.35 times more.

Within this increase, it is worth noting that imports of basic products (that is, products of direct consumption or products produced by peasant and indigenous family agriculture) also increased almost double in the period of 2010-2016 when they went from representing 18.57% (US $ 26,179,000) of total food imports (2010) to represent 25.21% (US $ 48,256,000) in 2016, as shown in table No. 1.

The second aspect to highlight is the redirection of these imports. According to a detailed study of the agri-food system (Prudencio J. 2017) in 2012, the highest value of imported inputs corresponds to the beverage industry (34% of the total) followed by the diverse food products industry[9] (25.6%), having been displaced from the first place in imports, the raw materials of the milling industry (wheat / wheat flour) that for many years or decades represented the greatest value of the imports of inputs of the national food industry.

If these two industries (drinks and diverse food products) are added imports of inputs for the sugar industry (9.6%), these 3 industries represent two thirds (69.2%) of the total value of imports. This new reconfiguration of imports of raw materials in favor of sweetened food products, sugary drinks and others that the WHO / PAHO calls ultraprocessed and that are

[5] Soy increased its cultivated area by more than 438,000 hectares between the years 2005-2014, while the potato, between 2005-2011, remained stationed at 6,400 hectares. In 2014/5 it increased to 9,572 hectares (that is, it increased only 3,000 Hs). Other basic crops (tomato, garlic, bean, cassava, barley grain) and even animal fodder (alfalfa, barley) decreased in their cultivated area (Prudencio J. 2014).

[6] According to MDRyT data, the area planted with quinoa in Oruro increased 7.5 times. In the year 2000, quinoa represented 25.5% of the total area planted in that department, while in 2014/15 it represented 65.29%. Potatoes (and derivatives) in 2000/2001 represented 19.93% of the total area planted, in 2013/14 it represents 8.4% and 11.20% in 2014/2015 (Prudencio J. 2014).

[7] According to research by the Faculty of Biochemistry of the Universidad Mayor de San Andrés (UMSA), in 2009, 28 Kgs / ha / average of agrochemicals were used nationwide, achieving a productive yield of 5.28 Kgs / ha / average. In 2017, 44Kgs / ha / average of agrochemicals are used and an average yield of 4.96 Kgs / ha is achieved. (Carvajal R.2018).

[8] It includes the milling / bakery, sugar and confectionery, various products, beverages, fresh and processed meats, and dairy sectors. The analysis is limited only to certain years of the study period, due to lack of statistics and official information.

[9] Mainly comprising preparations for soups, potages; homogenized compound food preparations, prepared baking powders, among others.

largely cause of obesity, overweight and diabetes, is due among other factors, to the liberalization (and lack of control) of all types of food imports.

3.3. In the marketing system

A the existence higher availability of food products from abroad, due to imports and contraband[10], there is a greater disposition (and sales) of products in markets and in supermarkets.

Despite the various governmental efforts, fairs and direct sales markets from producer to consumer are with difficulties to maintain themselves, and many of the fairs have disappeared in several locations or have decreased in their local supply and especially their variability (at the expense of the presence of foreign products).

In the rural sector, in the communal fairs as well as in the markets of supply of the populations there are the products of foreign origin, especially for the contraband, products of direct consumption like potato (of Peru and Argentina), onion (Peru and Chile); fruits (Chile and Argentina) and even processed products such as rice (from Argentina and Brazil), oil (Argentina) and various sweetened products (candies, cookies, etc).

On the other hand, it is necessary to highlight that the road marketing / transport system[11] has been reinforced (and is more fluid) from the border posts of the bordering countries with Bolivia (Desaguadero / Peru; Blanket in Pando; Bermejo in the Chaco; Villazón / La Quiaca; Iquique / Oruro and the different rivers Brazil-Bolivia among others) towards the main cities of the country (El Alto, Santa Cruz, Oruro) from where food and products are redistributed to other regions and localities of the country, debilitating the old system of intermediation / commercialization that existed from the producing areas of each department to the centers (local or surrounding) of consumption / demand.

This explains that in the main markets of the largest cities such as La Paz, Cochabamba, Santa Cruz you will find all kinds of products and all sources. This also means the strengthening of the wholesaler who has more capital.

3.4. In food consumption / availability

Another consequence of the increase in food imports is in the consumption, because there is a gradual and constant displacement of products of national origin. The general population begins to consume more foreign products, which also changes their consumption patterns, their eating habits, their diets among others.

The lack of updated information on the actual food consumption of the population[12] impede a detailed analysis of the impact of imports on the ensemble food basket, however, several investigations and case studies (Prudencio J. 2017; Espejo MG 2015) highlight that the presence of food of external origin[13] on the table of families, the presence of processed

[10] To which it is necessary to add the greater economic income that the population has for the different subsidies and other social benefits.

[11] Imports of processed products are also made by air, from various countries, not only from neighboring countries but also from countries in Africa and Asia.

[12] Both by region and by income level, by sex, by age, by sector or by activity among other variables that influence nutritional requirements.

[13] Aspects not only attributable to imports but also to urbanization processes (distance between home and work sources, expansion of fast food places, short time to prepare meals at home, facilities to heat pre-cooked food) , the increase of income (meals in restaurants), incidence of the media (commercial propaganda for certain foods / drinks) and creation of supermarkets, among others.

products as well as a loss of the diversity of products and eating habits is becoming stronger.

One way of approaching the presence of foods of external origin (imported) in food consumption is through the analysis of food availability[14] for the entire population.

Studies referred to in this regard (Prudencio J. 2017; Prudencio J. 2014) indicate that depending on the products, in some cases there is a high external vulnerability (case of wheat / wheat flour) and in others a low vulnerability, although this is in growth in recent years, as is the case with several basic products produced by the peasant family economy, as shown in table No. 3.

Table No. 3
The availability of the main foods
and imports in relation to other variables (2005-2015)

	Year	Meals	Wheat flour	Rice	Pota-tos	Milk	Vegeta bles	Legu-mes	Sugar	Fruits	Fish/Sea food	Prepared food
Availability	2005	29	41,65	57,89	n.d.	39,48	25,87	33,97	37,39	87,46	0.87	2,41
Kgs / pers / year	2015	32,26	44,57	48,29	114,97	54,56	31,20	31,50	40,76	83,77	1,43	4,38
Production/	2005	1,00	25,96	0.99	n.d.	0.97	1.07	0.99	1.16	1.06	n.d.	.
Consumption	2015	0.98	54.45	0.92	n.d.	1.00	1.04	0.92	0.98	1.10	n.d.	-
Imports /	2005	0,4	74.15	0,60	n.d.	3,41	1,58	1,24	2,59	3,42	100	107,18
Consumption	2015	2,23	45.54	7,88	n.d.	1,93	2,42	7,74	2,05	7,13	100	102,9
Imports (M)	2005	0,004	286,0	0.0063	n.d.	0,035	0,014	0,012	0.022	0,032	-	22.44
Production (P)	2015	0,02	83.63	0,085	n.d.	0,019	0,023	0,083	0.020	0,064	-	48.89
Exports (X) /	2005	0,004	0,012	0,0019	n.d.	0,0063	0,082	0,0027	0,16	0,090	-	0.16
Production (P)	2015	0,012	0,00	0,0021	n.d.	0,027	0,065	4,12	4.67	0,16	-	1.40
Exports (-)	2005	+ 0,08	-284,71	- 2.33	n.d.	-10.21	17.26	-3,07	+57875	49,58	- 8.05	- 22.28
Imports	2015	-3.5	-219,75	-39.46	n.d.	+4.81	15.33	-26.28	-8047	98.44	-15.58	- 47.49
CDA=M/M+P	2005	0,4	74,15	0,63	n.d.	3,3	1,4	1,2	2,0	3,1	100	100
	2015	2,2	45,54	7,8	n.d.	1,8	2,2	7,7	2,0	6,0	100	100

Source.- Prepared by the author based on Prudencio 2017

In the case of the staple foods of consumption, while national production stagnates (case of potatoes) or decreases (case of tomatoes), imports increase quite as seen in above. The result is a stagnant (potato) or diminished (tomato) availability.

[14] Calculated from the total produced plus total imports less exports.

3.5. Greater food dependence

Another important consequence to mention generated by the increase in imports[15], is that referred to the increase in the country's food dependence and the loss of national food sovereignty.

In general terms, the greatest food dependence is shown by examining the evolution of food imports not only in terms of quantity but also of value, which increases every year, as analyzed in the first section.

In specific terms of food products, food dependence is also increased according to certain products. Examining Table No. 3, we note that the Food Dependency Coefficient (FDC)[16] between the period from 2005 to 2015 increased by several products, especially those from the peasant-Indigenous economy (rice, vegetables, legumes and fruits); situation that has not changed to the year 2018.

The products that decreace their high index in terms of the FDC are wheat / wheat flour and milk, mainly due to government policies of incentive to production and consumption (of EMAPA, the program to promote wheat production , and promote for production and especially milk consumption).

Finally, it is necessary to highlight that greater food dependence also means greater external vulnerability of the country to external factors (endangering national security); and loss of sovereignty, contrasting with the discourse and postulates of sovereignty posed by the government and several social organizations affiliated with Vía Campesina (such as the Federation of Women Farmers Bartolina Sisa).

3.6. The incidence of imports in other aspects.

There are several consequences of food imports, among which the following stand out:
. *In the migration*. As described above, the increase in food imports at reduced sales prices, generates less production and less cultivated area. Therefore, peasant-indigenous producers, especially from the communities of the valleys and the highlands that own small plots of land, are migrating to cities and abroad in search of better economic income and also performing multiple tasks and activities.

. *In the loss of traditional knowledge*. By migrating and leaving agricultural activity, cultural references are being lost, that is, traditions, ways of "doing," of producing, and their productive logic are being lost - and in the case of producers who have replaced their crops traditional for export (especially those located in the east of the country, the so-called intercultural) - they are replacing it with a technological "package", that is to say by

[15] That in turn generates the percentage reduction of the cultivated areas of consumer products, having a direct impact on the decline or stagnation of production (national supply) so that imports must be used to satisfy domestic demand.
[16] What is the relationship between imports over imports plus national production

mechanized technology, transgenic and more agrochemical seeds. Even your own family labor (creating family unemployment) is replaced by machinery.

. *Loss of productive rationality* (consisting of diversity and complementarity, among others), their ancestral knowledge developed and transmitted by generations, and their socio-cosmic nature (conformed by their human and non-human environment, or the nature-culture interrelation) They are also losing the capacity they have as individuals and communities to resist, absorb, (re) adapt and recover from the different disturbances in their environment. That their resilience is important in the face of climate change.

. *Loss of traditional seeds and their diversity*. Another incidence of the increase in imported food and its flooding in national markets is the loss of seeds of traditional products (as well as their diversity), rich in nutrients. As there is a change in basic crops for export crops, transgenic seeds are used that must be acquired permanently, leaving aside traditional seeds. This means that part of the harvest is no longer reserved for the seeds of the next planting and can no longer complement their crops with others as they did in their places of origin or their ancestors. They can no longer do integrated pest management because they have to fumigate with increasingly powerful agrochemicals.

4. FOOD IMPORTS AND THEIR INCIDENCE IN CAMPESINA AND INDIGENOUS PRODUCTION

In the statistics described on food imports, it highlights that there are more and more - in quantity and diversity - the products that are imported and that the country has the capacity to produce.

If the general food imports are analyzed in detail (see table No. 4), all the groups of imported[17] products include food that the peasant and indigenous family economy produces in the country.

The peasant and indigenous producers located mainly in the regions of the valleys and the highlands and that have small plots of land (between 0-2 hectares), produce a variety of food products for self-consumption and the domestic market. They are the ones that supply the domestic market the most, although in percentages that are decreasing more and more[18].

Table No. 4
Food imports produced by the
Peasant family economy according to product groups (2000-2018) (Tm)

Product group	2000	2005	2010	2015	2016	2017	2018
1.Cereals	273.108,30	211.852,90	80.104,60	12.055,00	222.101,40	249.472,60	105.134,80
2. Fruits	17.849,10	19.006,10	28.840,60	37.523,90	41.653,10	39.629,70	37.652,90
3. Vegetables	3.897,50	511,8	463,8	19.404,60	18.939,80	21.307,20	4.335,30
4. Tubers and roots	1.282,50	2.809,00	17.518,10	25.530,20	51.866,30	33.782,70	4.706,70
5. Peanuts	118,3	0,5	1.322,80	1.086,10	487,9	3.110,90	488,3
6. Oregano	81,3	31,4	9,5	19,4	38,5	31,4	48,4

[17] In Annex 1, the detail of extensive food imports, not only by food groups.

[18] According to various studies (see Dandler, Blanes et al 1987; Prudencio J 1985; Prudencio J. 1991), the self-supply of food from peasant agriculture exceeded 78% of the national total in the 1980s.

7. Sheep meat	0,1	0	0	0	0	0	0
Total	296.337,10	234.211,70	128.259,40	95.619,20	335.087,00	347.334,50	152.366,40

Source.- Built by the author based on the INE database.

The products produced are diverse such as tubers or roots (potato, papaliza, oca, sweet potato, yucca); vegetables (onion, corn, peas, locoto, garlic, lettuce, carrots, tomatoes, beans, chili peppers), cereals (wheat, grain barley, fodder), fruits (citrus, bananas, custard apple, tumbo and several others) as well as peanuts, beans (produced by indigenous producers, usually in the east of the country) among others.

Wheat and rice are also produced in the east of the country, but in smaller quantities than those produced by medium-sized producers and agro-industrialists in the eastern region of Santa Cruz.

In the cereal group, for example, rice imports, which is a product produced by medium, large and small farmers, in the period between 2000 and 2017 has an upward tendency, although this situation depends more on climatic factors and also of the exchange rate. of the currency of the border countries where imports come from (Brazil, Argentina). Therefore, in some years rice imports are very high (2006, 2008, 2013) and in others not (2010, 2011; 2012, 2016, 2017).

In the case of wheat, produced largely by peasant producers in the western communities of the country[19] and also by the agro-industries of the east[20], imports continue significant[21], although to a lesser proportion than in past decades.

In the case of corn, there is also a growing tendency, especially in recent years in which various marketing companies have begun to legally and illegally import corn (transgenic especially) as food for livestock, pork and poultry . If 2000 Tm was imported in 2000, in 2016 more than 106,000 Tm were imported as shown in Table No.1 of the Annex.

These imports directly affect the production of peasant producers that not only compete with their production in local and city markets, but also in the poultry industry, which is buying less corn of national origin for chicken feed. It also affects the rich diversity of corn seeds that the country has. Therefore, peasant and indigenous family producers are losing diversification and productivity due to import competition.

The rest of the food imports are basic food products, which the country has always produced but which in recent years, due to the promotion of export products, has stopped producing and resorting to imports. This is the case of vegetables, tomatoes, fruits, tubers and others, causing the country to lose its food sovereignty and fall more and more into food dependence.

An example of the permanent increase in imports of consumer food products is potatoes (see Chart 2), one of the main products of the peasant family economy[22]. According to INE

[19] For your own consumption and your local markets

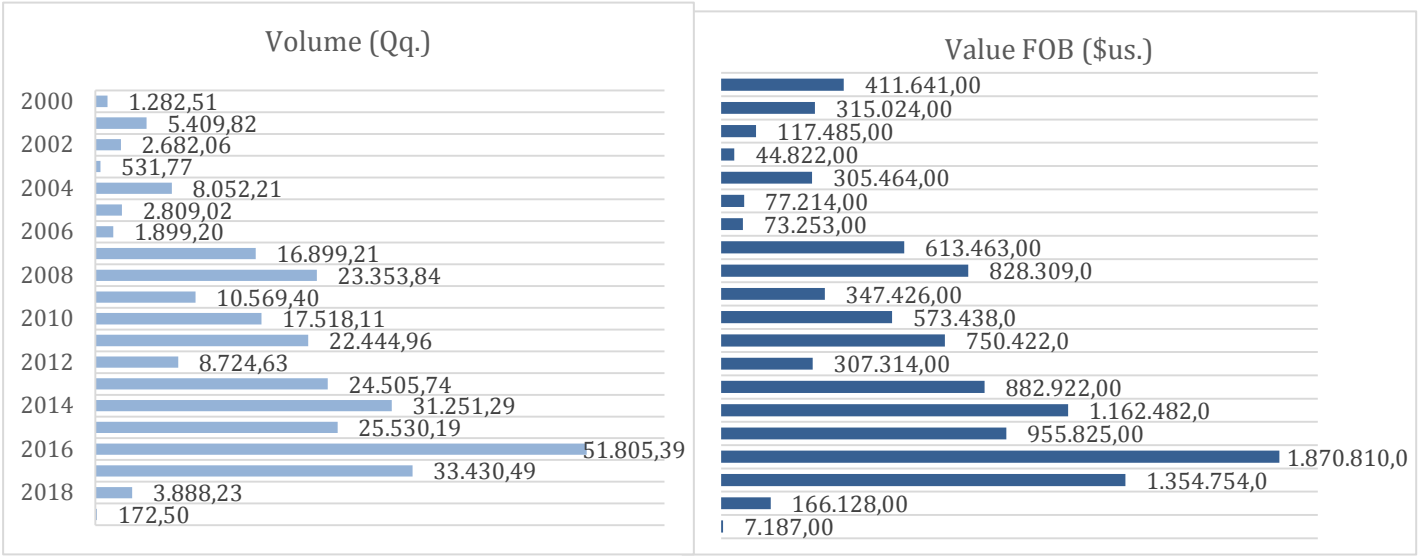
[20] That alternate winter cultivation with soybeans

[21] And despite the series of government programs (EMAPA for example) to encourage this crop through subsidies (unfortunately marketing subsidies, not to production).

[22] In addition, basic food of the population, whose origin is the country itself through the Andean peasant communities.

data (04/26/2019 El Diario) in 2018, 28,750 kg of fresh potatoes were imported; 3.8 million kg of frozen potatoes and 818,459 kg of chuño and tunta; In other words, potato imports represent for US $ 100 million.

Graph No. 2 Potato imports between 2000 and 2018 (Volume and value)



"……It is not possible to compete in costs with the potato (that enters) from Peru or with the tomatoes from Chile that enter via imports or contraband to the Bolivian market, therefore…… it is no longer business… it is no longer profitable to produce potatoes and tomatoes"

"….It is not possible that the box of 12 kilos of tomato that should be paid to the producer to Bs 80, lower its price to Bs 40 ... and sometimes reach Bs 20 ... due to the oversupply of Chilean tomato".

(Peasant producers in the valleys of Samaipata and Mairana of Santa Cruz)

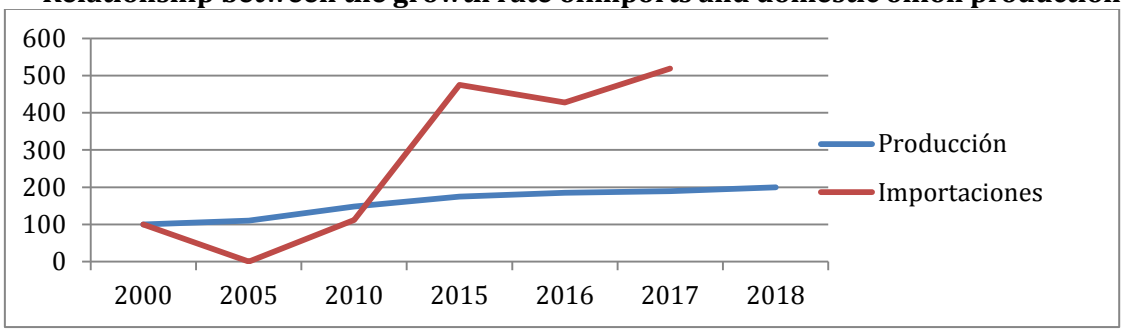
(El Deber 12-04-19)

The case of vegetables - another of the basic products produced by farmers in the communities of the valleys and the highlands - is another example that calls for reflection. If 3,897 Tm were imported in 2000, 21,307 Tm are imported in 2017, that is 5.4 times more. Inside this food group, stand out that tomato imports increase 3 times more and those of onions 52 times more.

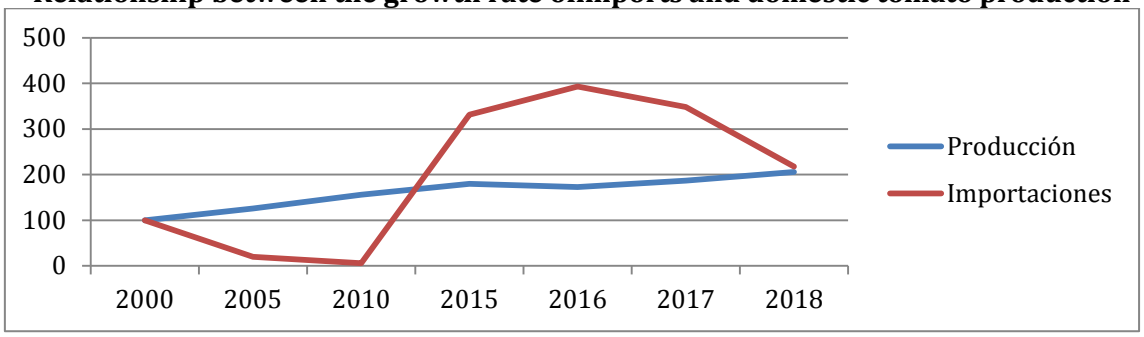
This excessive increase in imports also suppose that the growth rate of imports is much higher than the growth rate of domestic food production, as reflected in the following graphs referring to onion, tomato and potatoes, the main products of the peasant family economy of the country.

Graph No. 3

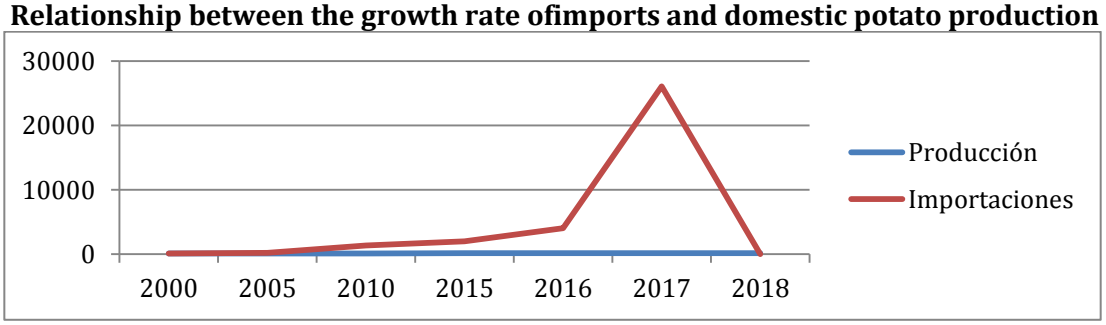
Relationship between the growth rate ofimports and domestic onion production



Relationship between the growth rate ofimports and domestic tomato production



Relationship between the growth rate ofimports and domestic potato production



The consequences for the peasant family economy due to the increase and diversity of imports were already mentioned in the previous chapter, highlighting the weakening of the productive capacity of the peasant family economy, the migration of the peasant labor force, and the displacement of crops basic for other export crops that generate more income.

5. IN BRIEF CONCLUSIONS

. The situation of food imports is an aspect that shows us the productive reality that the national food system and the peasant family economy through agglutinated small farmers and indigenous farmers in rural communities.

. The complete liberalization of food imports that the country is experiencing is disastrous for the peasant family economy and benefits only food importing companies, intermediary merchants and agro-industrialists who use imported raw materials.

The permanent increase in food imports that takes place year after year, shows us that the country's internal policies are not appropriate to the reality of the peasant family economy

that is unprotected in face of an irregular and distorted international market, which operates with subsidies and through transnational corporations and trade agreements.

. One of the consequences of the increase in food imports, in addition to the destruction of the national productive apparatus as well as the economy of peasant family agriculture is the decrease in the availability of food produced internally, healthy and nutritiously rich, by others of external origin, mostly prepared / processed and sweetened, not healthy or adequate to human health, with serious consequences on food / nutrition (poor diet that generates overweight and obesity).

. The growing food imports indiscriminately entering the country in recent years, generates the loss of national productive diversity, decrease in monetary income and employment of small farmers, loss of biodiversity, migration of labor peasant, increased external dependence on food and greater food insecurity among others.

. The government policy of food prices is a very serious debility in the country, not only because it permit external products in domestic markets at low prices, but because food prices do not cover the production costs of the produced basic food by peasant producers and Indigenous. This injust internal price system - intentionally maintained - is not adequate and is used by the government to subsidize the national economy and also as a basis for social stability.

6. SOME POLICY RECOMMENDATIONS

General recommendations

1. Modify / stop the policy of liberalization of food imports through the prohibition of imports of basic food that the country produces, as in other countries such as Argentina or Chile where no type of food can be introduced (basic or processed).

2. Need for another agroeconomic model that transforms the agricultural and livestock system active in several regions of the country, for another model that prioritizes the supply of basic food for internal consumption and stop promoting export merchandise products.

3. Protection of the productive structure of the peasant and indigenous family economy.
Promote the agroforestry system that implements the original peasant and indigenous family economy through the recovery of soil / land, harvesting and proper water management, the rescue and conservation of seeds, integrated pest management and phytosanitary protection, cover crops, productive diversity and crop rotation, technical training, the creation of food reserves and conservation techniques among others, as they pose through various instances and moments[23].

Specific recommendations

On the subject of imports

[23] In this regard, see the "Declaration of CIOEC and the Peasant Organizations and Indigenous Peoples for the World Peoples' Conference on Climate Change in Cochabamba and COP 21 in Paris". (CIOEC= Coordinadora de Integración de Organizaciones Económicas Campesinas Indígenas y Originarias de Bolivia), 15 / X / 2015. Also see Prudencio J. 2017

- Absolutely prohibit the entry of products for direct consumption (agricultural) that the country is in a position to produce and that is produced through indigenous-peasant agriculture.
- Dramatically improve customs control, sanitary control (SENASAG) and application of high tariffs, para-tariff measures to prevent imports of processed foods.
- Control the internment (at borders) for smuggling of foreign food and agricultural products, which compete without paying taxes and, above all, discourage the small Bolivian producer. Also, control in the wholesale markets of distribution of these products.
- Increase economic, technological and human resources for adequate control of food income.
- Permanently update the lists of processed and ultraprocessed products sensitive to the health of consumers.

On the issue of support for internal production and marketing

- Support for the recovery of exhausted agricultural land located in the peasant and indigenous family economy (through enclosures, natural fertilizers, natural pastureland and others), improve them and make more efficient use through the integrated management of soils, water, biological resources and other inputs, implementing in synthesis, the conservation agriculture.
- Support for the recovery of traditional seeds, food base and food sovereignty, through the support and creation of regional seed banks, exchange of seeds between regions and producers; support to the semilleristas; agronomic research and others. It is necessary to create a new system in INIAF that strengthens the national wealth of native seeds and does not continue with its commercial seed approach only.
- Support the agroforestry production system by combining diversified agricultural production with small non-extensive livestock and forest and non-forest plants.
- Not to the extensive system or the use of agrochemicals that pollute land, water and biodiversity.
- Support to the peasant producer to produce healthy and nutritious food, through training (free agricultural extension service, for example in training for the use of drip water, and / or in the management of water systems among others).
- Support for agronomic research of basic consumer products produced by the peasant family economy in the valleys and highlands (variety rescue, among others).
- Subsidies to production (not to commercialization as EMAPA does) to achieve an increase in productive yields, which means monitoring the producer and incentives to improve their productivity.
  Fair prices that cover production and collection costs.
- Implementation of water systems for irrigation based on the capture of water in the mountain ranges, transfer and proper management of these water sources / pools for later distribution at the level of the peasant family economy.
- Technical and financial support to implement basic food processing / processing plants (achieve added value).
- Support to farmers' organizations so that they can offer their improved products and access state purchases (school meals, food for hospitals and barracks among others), which constitutes a huge market and should only be used for peasant production regional and not to others merchant or large companies (PIL for example) as it is today.
- Support for direct producer-consumer marketing through the creation of local markets, price information systems, municipal support for the transfer of products, support for commercial agreements (producers-hotels / restaurants for example) in order to rescue the domestic market to the national peasant production.

- Support so that the peasant-indigenous producer can comfortably perform his role such as nourishing the population (with the necessary amount of healthy and quality food, ensuring food security with food sovereignty), allowing the land to regenerate without contaminating the environment (in balance with ecosystems and biodiversity among others) and ensure the well-being of its own actors (in terms of decent jobs and sufficient economic income).

BIBLIOGRAPHY

. Dandler Jorge; Blanes José; Prudencio Julio; Muñoz Jorge. (1987) "El sistema agroalimentario en Bolivia" CERES.

. Espejo María Gladys (2015) "Factores que influyen en la composición de la canasta básica de alimentos de las familias en la ciudad de El Alto". Tesis de maestría en Seguridad Alimentaria y Nutricional. María Gladys Espejo. Facultad de Medicina, Enfermería, Nutrición y Tecnología médica/Unidad de Post Grado. Universidad Mayor de San Andrés (UMSA)

. Fundación TIERRA. Base de datos sobre alimentos

. FAOSTAT (Diversos años)

. FAO 2016 (Panorama de la seguridad alimentaria nutricional 2016: Sistemas alimentarios sostenibles para poner fin al hambre y la mala nutrición)

. Prudencio Julio Böhrt (2017) "El sistema agroalimentario en Bolivia y su impacto en la alimentación y nutrición (Análisis de situación 2005-2015)". La Paz.

. Prudencio Julio Böhrt (2014) "Renunciar a la seguridad y soberanía alimentaria por comercializar más?.....o la subordinación del sistema alimentario boliviano a las exportaciones"(Análisis del "Plan del sector. Desarrollo Agropecuario 2014-2018. Hacia el 2025". La Paz.

. Prudencio Julio B. (1991) "Políticas agrarias y seguridad alimentaria en Bolivia". Edic CEP-UNITAS

. Prudencio Julio B. (1985) "La situación alimentaria en Bolivia" CERES, La Paz

. Roger Carvajal (2018) "Transgénicos en Bolivia: Impactos en la economía, el medio ambiente y la salud." UMSA Facultad de Bioquímica

THE COMPLEX OF THE TRANSGENIC SOY IN BOLIVIA

(OR THE FOUR HORSEMEN OF THE APOCALYPSE FOR MOTHER EARTH)

Julio Prudencio Böhrt
(La Paz, June 2019)

The author is grateful for the comments and suggestions received from experts on the subject, Mr. Miguel Angel Crespo (Director of PROBIOMA-Santa Cruz) and Mr. Theodor Friedrich (FAO representative in Bolivia).
The opinions expressed in this document correspond to the author and do not necessarily reflect the socio-political views of the professionals.

INDEX

LIST OF PICTURES

GLOSSARY

APIA	Association of Agricultural Input Suppliers
ANAPO	National Association of Oilseed Producers
AFP	Pension Fund Administrator
ABT	Supervision and Social Control Authority of Forests and Lands
BM	World Bank
CAO	Agricultural Chamber of the East
CPE	State Political Constitution
CSUTCB	Unique Trade Union Confederation of Rural Workers of Bolivia
CIDOB	Confederation of Indigenous Peoples of Bolivia
CIPCA	Peasant Research and Promotion Center
COPROFAM	Confederation of Organizations of Family Producers of Mercosur
CNA	National Agricultural Census
CIOEC-B	Integration Coordinator of Peasant Economic Organizations Indigenous and Native of Bolivia)
ET	Transnational Companies
FES	Social Economic Function
FAN	Friends of Nature Foundation
FAO	Food Agricultural Organization
GFW	Global Forest Watch
IBCE	Bolivian Institute of Foreign Trade
INRA	National Institute of Agrarian Reform
INE	National Statistics Institute
MDRyT	Ministry of Rural Development and Land
MMAyA	Ministry of Environment and Water
NADEPAS	Associated Numbers of Agricultural Production
GMO	Genetically Modified Organisms
GDP	Gross Domestic Product
PIEB	Foundation for Strategic Research in Bolivia
PROBIOMA	Productivity Biosphere Environment.
PLAGBOL	Pesticides Bolivia
PLUS	Land Use Plan
TIPNIS	Indigenous Territory and Isiboro-Sécure National Park
UMGRM	Universidad Mayor Gabriel René Moreno

FIRST PART

THE FOUR RIDERS OF THE APOCALYPSE FOR THE MOTHER EARTH

In recent years, in the country different investigations have been carried out on the soy complex, analyzing and describing this problem in deep.

However, despite these diverse and meticulous studies, there is a lack of analysis or of explaining further the role that an actor who is important in the soy complex is playing, as are the farmer farmers now called Intercultural.

The lack of information and analysis about that actor - which has gained importance in recent years - is what moves us to the approach of the following article.

1. THE CURRENT CONTEXT OF THE SOYA COMPLEX

At present, there is an agricultural model that is dominating much of the planet and that is presented as "the solution" in the fight against poverty and hunger.

This model that is driven by big Transnational Corporations (TC)[24]; by different international development and cooperation institutions and also by agribusinesses with the complicity of national governments, it presents new forms and mechanisms of international capital investment[25] and value appropriation. It is changing relations of production, of possession of land, implementing new forms of extraction, control and power, among other aspects.

This model - which is proven to pollute the earth, the environment and biodiversity; that monopolizes, depletes and contaminates the water; that deforests and affects human health - is implemented in several countries in South America through the exploitation of export products[26], whose star product is transgenic soy[27], which is used as food for humans (in small percentage), to animals; as fuel (bioethanol) and also as raw material for other industrial products.

This agricultural model and the transnational capital have been introduced in the country several years ago, in complicity with the agroindustry of Santa Cruz, with the social sector now called intercultural and with the support of government policies.

---

[24] Bayer, Basf (German); Bonge, Cargill, DuPont, Monsanto (purchased x Bayer recently) and Krat (USA); Unilever (British); Danone, Carrefour (France); ChemChina, Cafeo (China); Glencore, Nestle and Syngenta (Switzerland); Dreyfus, Nidera (Holland) among others

[25] Not only buying land in different countries for the production of products with transgenics, but now inducing / investing to produce those products that will then buy them.

[26] To cite a case, for example cherries in Chile (Panez Alexander 02 9 2019 Rebelión Chile newspaper).

[27] And in the short term, they also want to implement transgenic sugar cane (for bioethanol) and transgenic corn (for livestock feed) in Bolivia, among others.

It is important to highlight the latter social actor because it constitutes the fundamental difference with respect to the model implemented in other countries of transgenic soy production such as Argentina, Paraguay and Brazil, where there is no space for the family economy, where they completely excluded farmers/indigenous people appropriating their lands and establishing only extensive monocultures.

2. THE CONFIGURATION OF THE SOYA COMPLEX

How is the soybean agricultural development model configured?

¿Who compose it and how? ¿What role does each actor play in that complex?

In recent years, an interrelated circuit has been established between various actors[28], he main ones are Transnational Capital; Agribusiness; the Government and Interculturals[29], who together form the "Bolivian system of transgenic soy production".

A brief account of the conformation of the actors in this hybrid agricultural model - unique in the countries of South America - is as follows:

i. The great capital

The agrarian model is structured by the large capital – whose main feature is uncontrolled extractivism for agricultural export to the world market - who is the owner of the technology (agricultural machinery)[30], of the inputs (transgenic, agrotoxic seeds) and in several cases, owner of land and agribusiness directly or indirectly; and with great influence in agronomic research centers.

Despite the anti-empire, anti-capitalism and food sovereignty discourse of the government, this great capital is expressed through Transnational Corporations (TC) present some time ago in Santa Cruz[31] through the trade of agricultural products and supplies.

These are the ones that produce, control and provide transgenic seeds (GMOs) as well as agrochemicals, fertilizers, herbicides, fungicides - with glyphosate - and technological machinery[32].

---

[28] The intermediary merchants of the inputs, the producers of the Mennonite colonies, the Association of Suppliers of Agricultural Inputs (APIA) and even recently the financial system (the FASSIL Bank) and some media and communicators among others.
[29] The 4 horsemen of the apocalypse (in reference to hunger, war, death and plague) for mother earth in Bolivia.
[30] Modern agricultural machinery that is often not suitable for use in certain soils / land.
[31] Monsanto, Cargill among others.
[32] Not the only ones to market those products. There are also several individuals and intermediary commercial companies dedicated to that business, which is why it is called "agribusiness".

They are also the ones that determine international prices and those that have a monopoly on export market access. They are present all over the world, with many complaints and questions about their products (glyphosate) and their procedure[33].

ii. Agribusiness

They are agribusinesses affiliated with the CAO / IBCE / ANAPO[34] that are characterized, mainly, by owning a large amount of land (own, rented, shared lands) with transgenic soybeans and using a large amount of agrochemicals.

They have storage silos; they are the owners of the agro-processing industries of soy and derivatives; they own transportation mostly; and have contact with exporters[35] and the international market.

They are also the ones that provide the producers, the technological "packages" (seeds, agrochemicals)[36], have agricultural machinery for the production of transgenic soybeans; and in part, those who work through "contract farming"[37] with small and medium producers, to rescue / buy them the soy produced.

iii. The state.

The State has become the third component of this system, being the national body that accepts and encourages the expansion of this capitalist/extractivist[38] agricultural model through a series of laws, policies, programs and government provisions, as well as its institutions such as INRA[39] and INIAF[40] whose purpose is to support the production of transgenics (soy and other products) and their expansion.

---

[33] "They condemned Monsanto to pay $ 81 million for negligence" (http // eju.tv / 2019/03 / condemned-a-monsanto-to-pay /; https: //www.bbc.com/mundo/noticias- 47645376; "Bayer sinks for fines and round up" (page Seven 03/21/2019); "Bayer sued internationally" (03/10/2019 Page Seven); Monsanto faces 13,400 legal remedies for glyphosate herbicide INFOBAE (https: //infobae.com/america/eeuu/2019/04/ 025 / monsanto-engrenta); Monsanto faces 13,400 legal remedies for the herbicide glyphosate (https://www.infobae.com/america/eeuu/2019/04/25 monsanto-confron-13) among others.

[34] Although it should be clarified that ANAPO is constituted not only by large companies but also by medium-sized entrepreneurs and peasant producers; several of which are concerned with reducing the use of agrochemicals, preventing their abuse, promoting sustainable agriculture and even do not have modern and technical machinery.

[35] With the ETs that dominate the export market like Midland; Bunge; Cargill; Dreyfus (which dominate 70% of the world market for soy, oil palm, corn).

[36] With the proper instructions for use, the exact number of days needed from sowing to harvest and the standards required for the quality of the grain.

[37] "Contract farming represents a form of control without dispossession (of land) that, however, produces differentiation, exclusion and marginalization of farmers" (Ben M. Mac Kay (2018). Although it is necessary to clarify and complete the above, that the differentiation produced is not only with respect to the other actors in the system, but also within the peasant farmers themselves, producing soybeans, as discussed in later chapters.

[38] Very similar to the socialist-extractivist model (not in the sense of the use of GMOs, but if in the extraction as it gives rise, without the care of the environment, without the replacement of the fertility of the land, without the care of biodiversity, regardless of pollution among others).

[39] That works for years with a loan capital from the Inter-American Development Bank (one of the most representative institutions of capitalism, as well as the World Bank, according to the government) of

For this purpose, in recent years the State has promulgates several laws and regulations. Among the most important are:

. Forgiveness for illegal deforestation (that is, unauthorized deforestation) through Law No. 739 (29 / IX / 2015).

. The extension to the term of the verification of the Social Economic Function (SEF) from 2 to 5 years, by means of Law No. 740 (29 / IX / 2015), which prevents the reversal of unworked agricultural properties.

. The authorization by Law 741, of clearing (thus legalizing what has already been dismantled) for small productive units (up to 20 hectares), that is, increases the limits of deforestation.

. The diesel subsidy (diesel used mostly by machinery that works with soybeans) that is increasingly imported in volume and value[41].

. The deliberance of the charge of specific taxes for the export of soybeans as do the other countries (Argentina, Brazil).

. The facilitation to exports through the construction of roads and expansion of the terminal of Puerto Busch[42]

.The promotion of this model considers it essential in its Development Plan[43].

. The provision of the financial resources of the Pension Fund Administrators (PFA) to grant loans to farmers in Santa Cruz (soybean producers).

. At the request of the agribusinesses of the east (03/22/2019, ABI) the concession of the extension of the agricultural frontier of the east to 250,000 hectares for the production of soybeans destined for biodiesel[44]

---

approximately US $ 40 million, mainly to grant the lands of the Indigenous Peoples of the East (Chiquitanía) and fiscal lands, to the intercultural.

[40] Another institution complicit in the agricultural model, imitating the role and functions performed by state-owned companies in other countries of transgenic soy production (such as the Biotechnology Commission, the Agro-Environmental Health and Quality Service; and the National Institute of Agricultural Technology INTA, in Argentina), emphasizing the investigation of the seeds of export products and scarcely in the seeds of basic food products.

[41] In 2016, 967 MT were imported for a value of US $ 504 million, while in 2018, 1,200 MT was imported for US $ 897 Million (Times 03/7/2019).

[42] "The Strategic Alliance of the Government with Private Entrepreneurs for the construction of the Puerto Busch terminal, exit to the Paraguay River (construction of the road infrastructure, rail and basic services) will increase soybean exports (Ricardo Paz, ANAPO president) (01 / 2/2019 Pagina Siete).

[43] See "Sector Plan Agricultural Development 2014/2018. By 2025 "(Pilar 8) and also" The Unity Pact "of May / 2018

[44] "Biodiesel is the next great link in the public-private partnership" (A. García L.Vice President El Deber 03/23/2019)

The legalization of the use and production of transgenic corn that has been taking place in Santa Cruz and the Chaco region for some years - despite the prohibition of the State Constitution - and which has been denounced so many times[45], will occur in any moment.

To this transgression of the State Constitution must be added that, according to experts[46], there is no control in the use of transgenics which are different in their potentiality and danger. A RR or BT transgenic has other dangers than a drought resistant or virosis tolerant transgenic.

. The modifications to the environmental regulations by means of the DS 3856 (of the 3 / IV / 2019) that changes the DS 3549 that "modifies, complements and incorporates an Regulation of Prevention and Environmental Control of the Law 1333 of the Environment" (making more flexible activities that go to cause very serious environmental impacts).

. The Supreme Decret 3874 (04/17/2019) Authorizing the National Biosafety Committee to establish abbreviated procedures (60 days) for the evaluation of "soybean event HB4" and "soybean event intact" destined to the production of biofuels[47].

iv. Intercultural

Interculturals are the fourth component of this Bolivian complex of transgenic soybeans as they contribute with lands48, produce part of the soybeans[49], use transgenic seeds, agrochemicals, glyphosate and others, within the framework of monoculture production, thus facilitating the operation of the soybean complex.

They are closely linked to the other actors of the soy complex: with agribusiness and large capital selling their soy production and acquiring inputs, GM seeds, technology ... and with the State being co-beneficiaries of the financial resources of the Pension Fund of retired employees, among several others.

However, deep down, interculturals are used both by large capital and agro-industrial, as well as by the Bolivian State.

---

[45] In the same style of the legalization of transgenic soy that was produced (with the knowledge of the government) several years before its legalization and was not eradicated despite being prohibited by the State Constitution. Then, before its massive extension and under pressure from the agricultural entrepreneurs of the East, the government legalized the production of GM soy.

[46] Friedrich Theodor (2019).

[47] This is intended to abbreviate procedures of impact on the environment and human health, surpassing regulations of the State Constitution and laws such as Mother Earth; like the Cartagena Biosafety Protocol of which the country is a signatory (ratified as Law 2274 of 22 / XI / 2001). According to PROBIOMA agronomists, this procedure involves serious studies and research, which involves sowing (in summer and winter harvest) to see its agricultural impacts on rotational crops such as corn, sorghum, sunflower. (minimum 3 years to evaluate in situ and have results).

[48] The minority with respect to the total land cultivated with soy. According to ANAPO, interculturals represent 78% of the total soybean producers but have 9% of the total area with soybean (cited by Ben Mc Kay -2018)

[49] As also the Mennonites.

For the agroindustrial, because it is the intercultural ones that publicly and persistently[50] request that the production of transgenics[51] for corn, sugarcane and others be freed, under the pretext of drought, low productive yields, high production costs, floods, poverty conditions, land and other constraints.

They are also used by the State / Government, because interculturals[52] now serve the government as their social and political base; and they give the pretext to the government to justify its speech that it is representative of the Indigenous Peoples; that he watches over mother earth, that he seeks food security and sovereignty among others.

In this way, interculturals have become a vital piece of this productive system, of this type of capitalist exploitation.

Graphic No. 1
Main actors in the transgenic soybean complex in Bolivia

This hybrid configuration between the State, private corporations and part of the peasant movement is dominating the national agrarian structure, establishing a new relationship between the public, the private and the peasants.

---

[50] Requests made by the Single Federation of Peasant Workers of the 4 provinces of the North of Santa Cruz (Resolution Extended 01/2019 of 01/25/2019, Montero). The institutional reactions and rejections to these requests (clarifying what transgenics really mean for national production) can be see in the pronouncements of the Archeology Society of La Paz (04/02/2019); of PROBIOMA (01/26/2019 www. Probioma.org.bo), and the pronouncement of the Confederation of Indigenous Peoples of Bolivia (CIDOB) rejecting the release of transgenic seeds (reproduced by CIPCA Santa Cruz on 01/31/2019, www.cipca.org.bo).

[51] Despite being prohibited in the Political Constitution and in the Law of Mother Earth.

[52] Using in turn the (ex) leaders of social organizations such as the Confederation of Women Bartolina Sisa, and the CSUTCB among others.

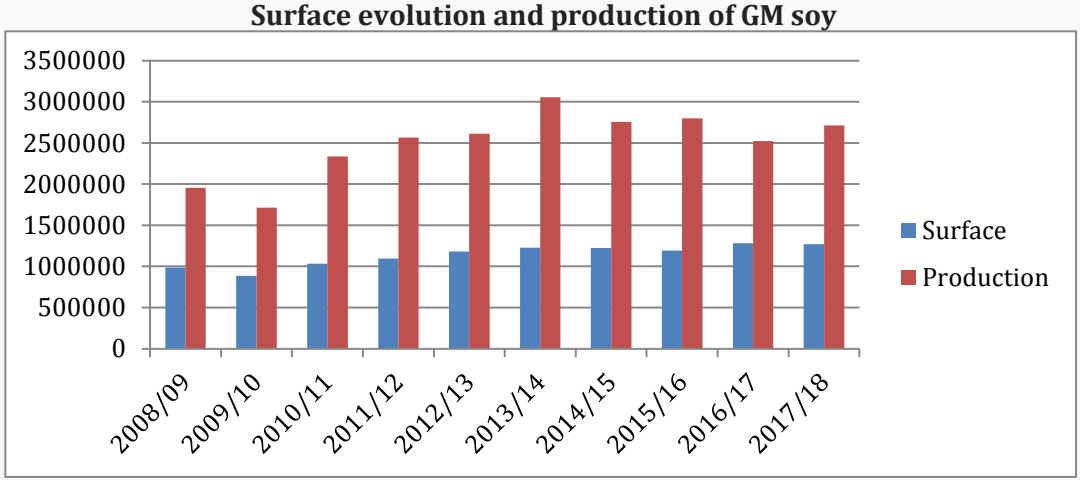
Similarly, this conglomerate, with a crucial role of intercultural peasants, is producing a new way of extracting natural resources with serious socio-political repercussions at national and international levels[53].

3. THE IMPACT OF THE SOYA COMPLEX

The production of transgenic soybeans has had permanent growth for years, both in its cultivated area and in the total produced, with a stagnant productive yield[54] and much lower than that achieved in Argentina, Paraguay, Brazil.

According to the representatives of the association of soy producers, in 2018 70% of the total soybean was exported, for a value greater than US $ 1 billion (Jaime Hernández General Manager of ANAPO, El Deber 11/05/2019).

Graphic No. 2
Surface evolution and production of GM soy



Source. ANAPO Memoria anual 2018

From the growth of the production and expansion of transgenic soybeans, a series of effects are generated in the country, among which stand out:

i. Displacement of food crops for export

By exporting more and generating more financial resources, the acreage of basic foodstuffs has been displaced by those export products, that is, export products increased and stagnated or even decreased the internal production of basic consumer products, which leads us to cover domestic demand or our food supply through imports and contraband, as discussed below.

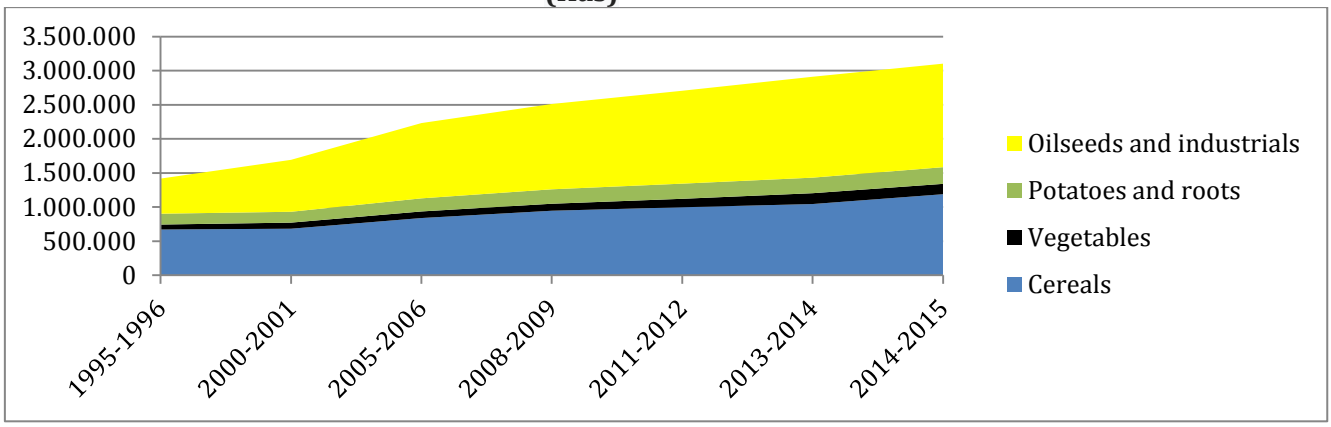
For example, in 1995/6 the tubers and roots represented 9% of the total cultivated area nationwide; in 2008/2009 they represent 8.4% and in 2016/17 only 6%, while oilseeds and

[53] Dividing the world peasant movement expressed in Vía Campesina that raises food sovereignty; also to the recent Confederation of Mercosur Family Producer Organizations (COPROFAM) that demand agroecological, diversified production, rescue and protection of traditional seeds, not monoculture, among others

[54] The highest productive / average / year yield (winter and summer campaigns) was achieved in the 2013/14 campaign with 2.43 Tm/Ha and the lowest in 2008/09 with 1.46 Tm/Ha. For 2017/18 the yield was 2.19 Tm /Ha

industrials accounted for 36% in 1995/96; 49% in 2008/9 and 45% in 2016/17 (https://ine.gob.bo Agricultural statistics).

Graph No. 3
Evolution of the cultivated area of the main products food and export, nationwide (Has)



Source.- Built based on data from INE/MDRyT

The tendency to increase export products at the expense of food products is best appreciated by analyzing the evolution of the cultivated area in the department of Santa Cruz.

Table No. 1
Santa Cruz. Evolution of the cultivated area of the main products (1995/96 - 2016/17) (Has)

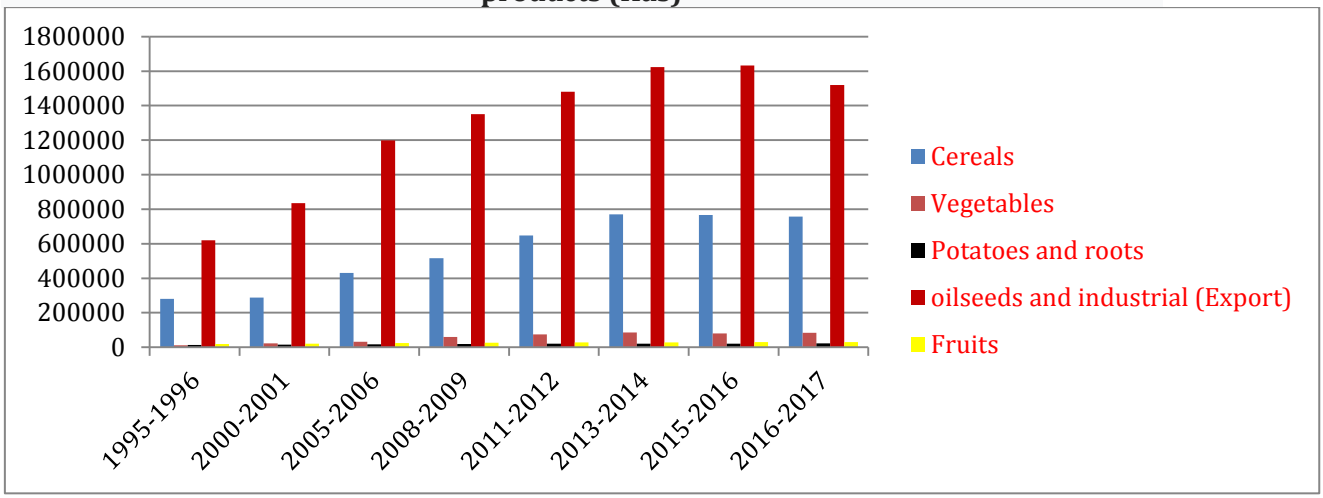
	1995-1996	2000-2001	2005-2006	2008-2009	2011-2012	2013-2014	2015-2016	2016-2017
corn grain	96.705(14.7)	104.000(11.6)	153.000(12.3)	222.773(14.9)	201.950(12.5)	267.378(14,5)	197.077(10,7)	236.955(13,8)
Wheat	55.680(8.57)	36.000(4,0)	48.000(3,8)	70.361(4,7)	82.878(5,15)	93.000(5,0)	168.776(9,1)	114.871(6,7)
Lettuce	164(0,0002)	164(0,0001)	175(0,0001)	628(0,0004)	621(0,0003)	708(0,0003)	717(0,0003)	730(0,0004)
Tomato	964(0,001)	1.160(0,001)	1.565(0,001)	1.831(0,001)	1.748(0,001)	1.711(0,0009)	1.722(0,0009)	1.762(0,001)
Corn	910(0,001)	1.077(0,001)	1.124(0,0009)	1.359(0,0009)	1.356(0,0008)	1.915(0,001)	2.472(0,001)	2.500(0,001)
Carrot	344(0,0005)	364(0,0004)	423(0,0003)	481(0,0003)	534(0,0003)	522(0,0002)	502(0,0002)	491(0,0002)
Potate	3.707(0,005)	4.338(0,004)	5.289(0,004)	6.052(0,004)	6.766(0,004)	6.733(0,003)	7.002(0,003)	7.302(0,004)
Soy	454.000(69,4)	606.900(68,8)	940.000(75,9)	932.183(62,7)	1.091.700(67.8)	1.267.843(69,1)	1.321.584(71,5)	1.249.004(72,8)
Sunflower	41.000(6,23)	135.000(15,6)	99.350(7,9)	250.617(16,8)	220.768(13,72)	193.800(10,6)	146.484(7,9)	101.000(5,8)
Total	653.474(100%)	889.003(100%)	1.248.926(100)	1.486.285(100)	1.608.321(100)	1.833.610(100)	1.846.336(100)	1.714.615(100)

Source. -Built on data from https://INE.gob.bo (MDRyT statistics)

Although in the last 20 years the cultivation of soybeans has been predominant in the whole of the cultivated area in Santa Cruz, it has been increasing permanently, since representing 63% in 2008/9, it went to 69 % in 2013/14 and 72.8% in 2016/7. Meanwhile, basic crops

such as tomatoes, carrots, corn, for example, have stagnated in their representativeness, and some, such as potatoes, even declined (2013 / 2014-2015 / 2016).

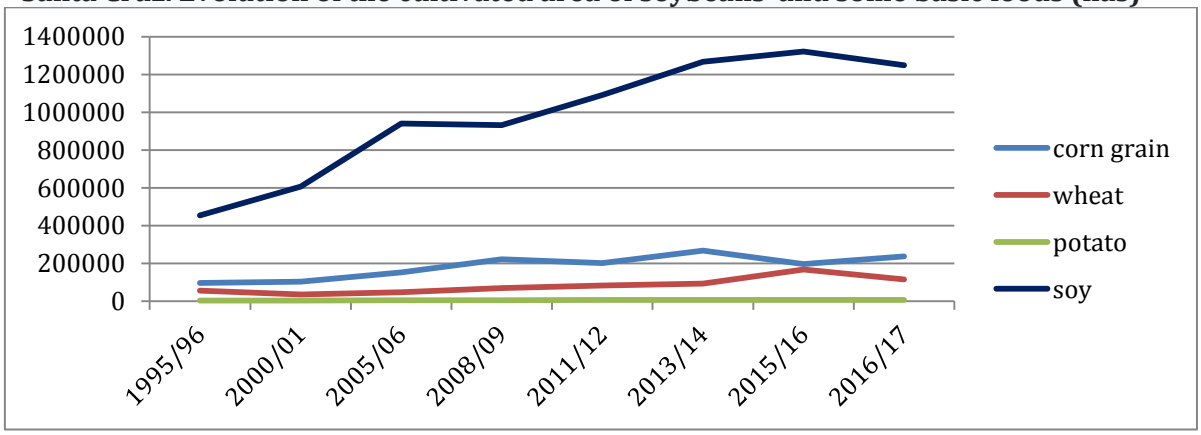
Graphic No. 4
Santa Cruz. Evolution of cultivated area according to group of food and export products (Has)



Source. Built on data from INE/MDRyT (www.ine.gob.bo)

The evolution of the cultivated area of soybeans in the last 20 years presents a tendency to permanent ascent, while the tendency of the main food products is stagnation and even low.

Graphic No. 5
Santa Cruz. Evolution of the cultivated area of soybeans and some basic foods (has)



Source. Built on data from INE/MDRyT(www.ine.gob.bo)

As a brief conclusion, we can affirm that the current problem in Bolivia is no longer the dispossession of the land of small farmers or their displacement, the problem is the displacement of essential food crops by soy (there is an exclusion of food).

ii. Increase in food imports deepening the country's food dependence.

Food imports show an increasing trend in the last 14 years as they go from US $ 218 million (2005) to US $ 700 million (2014) and US $ 580 million (2018). That is to say that between 2005 and 2018 food imports increased 2.66 times more. In those 14 years, the accumulated represented US $ 6,562 million, equivalent to 16.2% of current GDP.

In terms of volume, imports show a general tendency to increase, although with some variations according to the years. According to the National Statistics Institute (NSI), the volume of food imports between 2005 and 2018 ranged from 676,269.8 MT / average / year (see graphic No. 6).

The types and groups of imported foods also vary according to the year[55]. According to a study on food imports (Prudencio J. 2018), in 2005, the main imported food groups were cereals (wheat, wheat flour and cereal derivatives) representing US $ 128.7 million (53.14% of total imports). Ten years later (2015), Prepared Foods represent the first group of imported foods with almost 162 million (25% of total imports), a trend that remains in 2018.

The two food groups - which have a strong impact on the overweight and obesity of the Bolivian population - represent almost 40% of the total imported by the country, and increase the availability[56] of food for the general population.

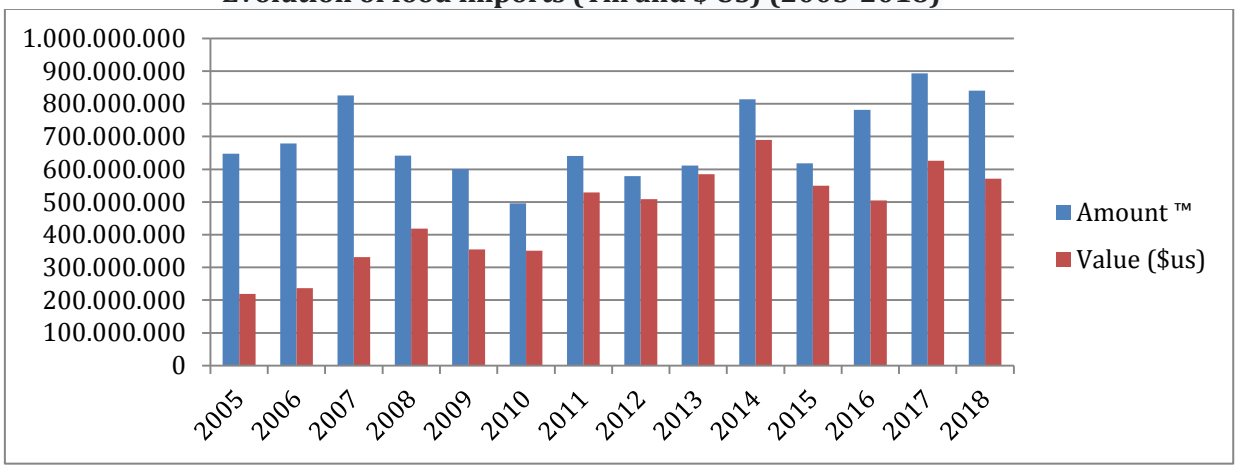
The rest of the food imports are basic food products, which the country has always produced but which in recent years, due to the promotion of export products, has stopped producing and resorting to imports, as is the case of vegetables, tomatoes, fruits, tubers and others, causing the country to lose its food sovereignty and fall more and more into food dependence.

An example of the permanent increase in imports of consumer commodities are the imports of potatoes, the staple food of the population and whose origin is the country itself. According to National Statistics Institute (NSI) data in 2018 (04/26/2019 El Diario), 28,750 kg of fresh potatoes were imported; 3.8 million kg of frozen potatoes and 818,459 kg of chuño and tunta; In other words, potato imports accounted for US $ 100 million.

[55] In other words, there is a permanent increase in food imports and their diversification; and on the other hand, an absolute lack of control because they are not subject to any regulation in terms of nutritional value.

[56] " Wheat flour" increased its availability from 41.6 kg / pers / year / average (2005) to 44.5 kg / pers / year (2015). This availability, which represents 124 gr / pers / day, is very high for the population's consumption and contributes to an inadequate diet due to the excessive consumption of bread, noodles and other pasta - made with that product - therefore, an excessive amount of carbohydrates consumed The availability of "prepared products" also called ultraprocessed foods, increased from 6.7 gr / pers / day to 12 gr / pers / day / average in the same years, that is to say it had an increase of 179%. This is a phenomenon linked in part to the worldwide expansion of processed products - especially of Chinese origin - as well as to the expansion of supermarkets in the last decade.

Graphic No. 6
Evolution of food imports (Tm and $ US) (2005-2018)



iii. Excessive and intense use of agrochemicals that exhaust the soil, pollutes the water, menace human health and intensify the country's dependence on the outside.

In fact, "the factor that most exhaust the soils and with this also leads to excessive use of agrochemicals, and that they pollute water and threaten human health, it is still the soil tillage system, which the government is not yet controlling (or implementing). On the contrary, it is promoting another system by donating plows and disk harrows" (Friedrich T. 2019 /FAO). This statement is very clear and forceful and points out one aspect - that of soil and land - not considered in government policies and also by farmers as discussed in the following sections referring to production costs.

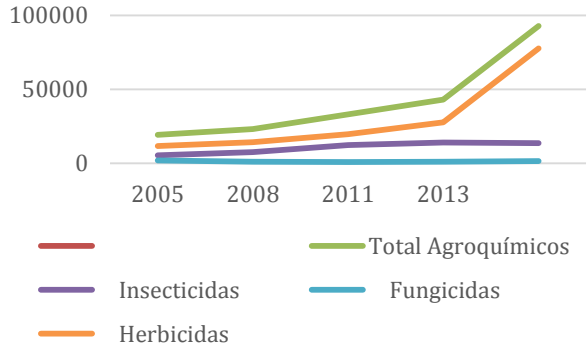
Regarding the excessive use of agrochemicals, it is difficult to specify the increase in their use due to the constant change and misrepresentation of data referring to imports of agrochemicals by the state agencies specialized in the subject matter (NSI).

Until 2016, that institution had offered a series of data on which the following tables and graphs were configured, showing that the evolution of imports was permanent, having increased between 2005 and 2014; about 5 times more plus the amount of imported agrochemicals, the herbicides being the largest increase.

Table No. 2
Evolution of agrochemical imports (Tm)

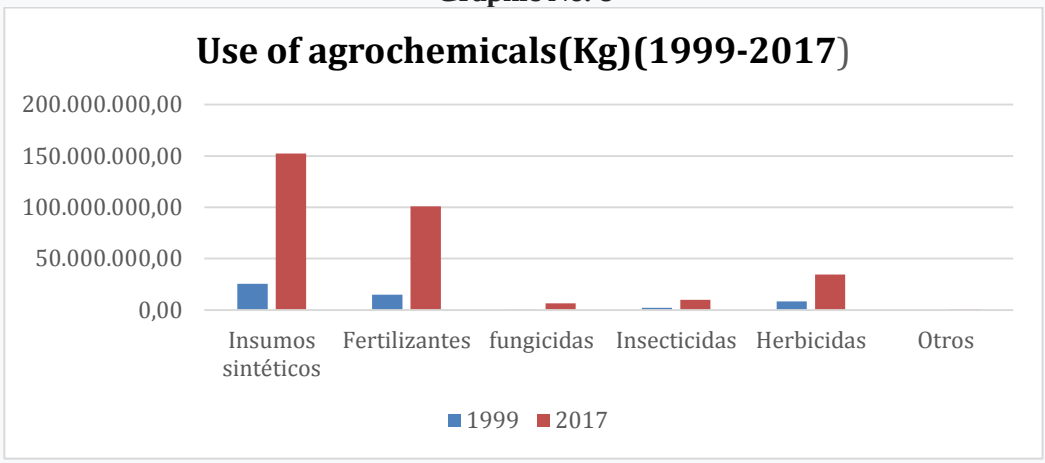
Imported Amount (Tm)	2005	2008	2011	2013	2014
total agrochemicals	19.309	23.266	33.059	43.042	92.922
insecticides	5.535	7.645	12.470	14.142	13.624
Fungicides	1.945	1.246	876	1.050	1.640
Herbicides	11.829	14.375	19.713	27.850	77.658

Graphic No. 7
Evolution of agrochemical imports



Other referential sources such as the Faculty of Biochemistry of the Universidad Mayor de San Andrés (UMSA) point out that between 1999 and 2017 the use of "agrochemicals"[57] increased by 500% (from 25,369,582 kg to 152,308,653 kg) as shown in figure 8.

Graphic No. 8



Note- Agrochemicals include synthetic fertilizers and pesticides/ Source. www.probioma.org.bo

Since the described agrarian model was implemented, with emphasis on soybean exports and monocultures, the use of agrochemicals at a general level increased from 32 kg / Ha (2007) to 44 kg/ Ha (2017); that is to say, it increased 137.50% while the productive yield increased from 4.36 Tm / Ha (2007) to 4.96 Tm / Ha (2017), that is 92 %[58].

Table No. 3
Use of agrochemicals and productive yields (2000-2017)(Kg/Ha)

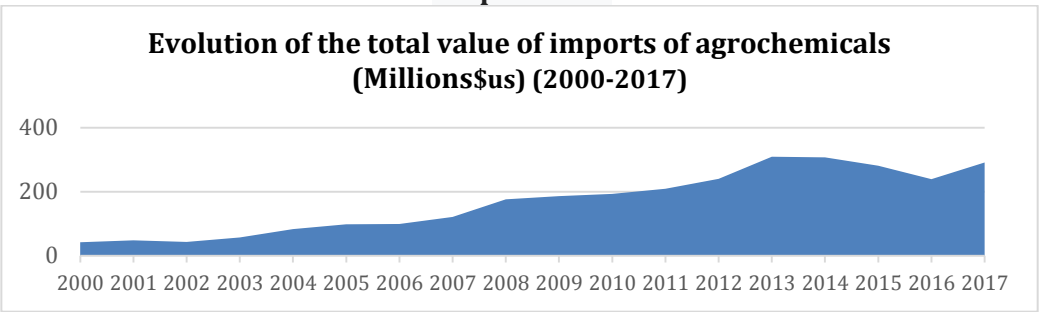
	2000	2005	2007	2009	2011	2013	2015	2016	2017
Agrochemicals (Kg/Ha)	14	33	32	28	40	40	36	32	44
Productive yields	4,25	4,56	4,36	5,28	4,52	4,80	4,73	4,33	4,96

Source. Carvajal R. "Transgénicos en Bolivia: Impactos en la economía, el medio ambiente y la salud."

In terms of value, agrochemical imports also had a permanent increase. From a value of US $ 42 million in 2000 they have increased to US $ 121 million in 2007 and to US $ 291 million in 2017. In the last 10 years (2007-2017), the country's dependence on the value of imports of agrochemicals increased 240.49%. (See graphic below).

[57] That includes synthetic fertilizers (herbicides, fungicides, insecticides) and pesticides.
[58] Although with various increases and decreases every year, as the following table shows. The average of these increases is 4.71 Tm / Ha.

Graphic No. 9



Source. Built on INE data

It also highlights that the use of agrochemicals is very intense, without control, without proper precautions and totally chaotic.

According to various investigations, in 2016 in the municipality of San Pedro where they

grow soybeans:

> ".. 64 brands of pesticides were identified. 4.7% of them corresponded to red labels ("very toxic or toxic"), 35.9% to yellow labels ("harmful"), 14.1% to blue labels ("be careful") and the balance (45.3%) a green labels ("care").
>
> (PIEB 10/16/2018 www.pieb.com.bo).

A recent study by the UMGRM university of Santa Cruz (www.uagrm.edu.bo) conducted at the end of 2018 in 4 rural locations in Santa Cruz indicates that:

> ... At present there is an intense use of agrochemicals because they registered 243 containers with different brands of agrochemicals, in the production of soybeans, but also of corn, cayenne, tomato and other products. 8.3% of these agrochemicals are red label (extremely dangerous agrochemicals), 29.3% are yellow label, 18.8% are blue label and the balance (43.6%) is green (not very dangerous).

Decontrol is also carried out in the containers of already used agrochemicals, many of them associated with risks of environmental contamination and damage to health.

"The Pesticides - the prohibited ones - are found in almost every farmer's house ... ... approximately 540 tonnes of containers are generated per year that are a potential source of contamination ... ... a farmer generates approximately 30-40 kg / container / year ... 91% of these containers are thrown outdoors... "(cited in Prudencio J. 2017 PLAGBOL."Healthy Food and Environment Project-AMAS 2014-2016").

All this shows us that there is a lack of very large information and, above all, lack of education and training for producers for the proper use of agrochemicals. In general, they are subject to merchant sellers who sell them anything under any indication highlighting the absence of regulations and provisions for those products, control and monitoring by government authorities and due control - "You cannot leave this issue of agrochemicals to market forces ... has not worked in any country "(Friedrich T./FAO 2018).

The intensive use of agrochemicals not only exhaust the soil, overexploits the land and pollutes the water, affecting the loss of biodiversity (in microorganisms and invertebrates). It also menace human health and intensify the country's dependence on the outside world.

iv. Increase deforestation.

According to FAN studies (2012), from 1999 to 2015 in Bolivia, 5.7 million hectares of forest are lost, the majority located in Chiquitanía and Chaco as shown in the following graph.

Graphic No. 10
Deforestation by Biogeographic regions

The causes for this deforestation are: i) mechanized industrialized agriculture, which focuses mainly on the issue of soybean cultivation (and on a smaller scale, sunflower, coca, rice); ii) small-scale agriculture (intercultural producers, Mennonites and local farmers); and iii) land authorization for the management of livestock.

The Ministry of Environment and Water (MMAyA / ABT -2018) indicate in a recent report, that in the last 12 years (2005-2017) Bolivia lost 4 million hectares. of forests In 2005 there were 47.3 million Ha, but by 2017 the figure dropped to 43.8 million Ha, which shows a decrease in the area. The most affected region was the department of Santa Cruz.

The annual average of deforestation between 2000 and 2005 was 195,000 Ha; between 2005-2010 was of 205,000 Ha and between 2016 – 2017 it increased to almost 350,000 Ha.

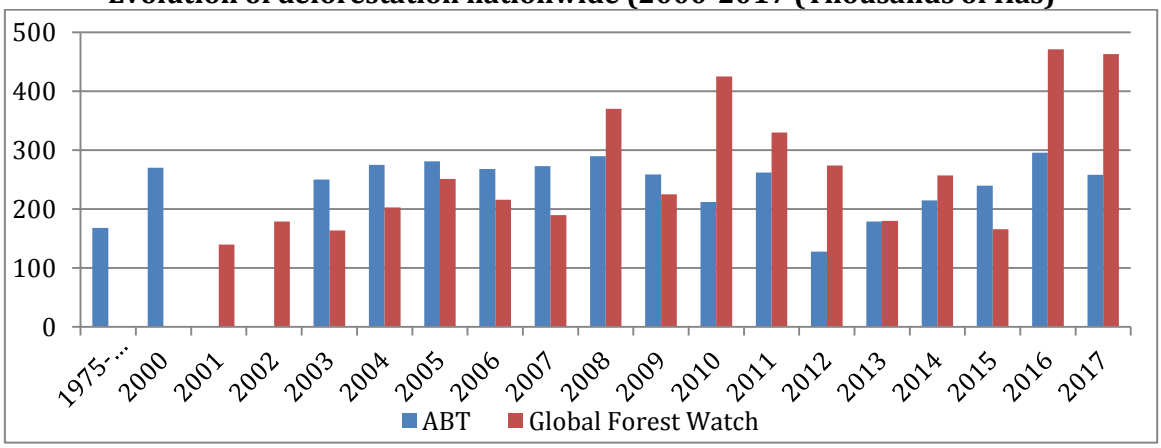
This means that Bolivia, after Brazil, is the country that loses the most forests in South America (in recent years, it has the highest growth rate of the Andean countries in the loss of primary forests).

Of the total deforested areas, 76% (1.3 million Ha) are located in the department of Santa Cruz (throughout the Amazon region, the Chaco and Chiquitanía). Equally, of the 25 municipalities with the highest deforestation levels in 2016-2017; 23 correspond to Santa Cruz[59] and two to Beni (MMAyA ABT 2018).

Another source of international information (https://www.globalforestwatch.org) points out that deforestation in Bolivia is higher than that shown by ABT, especially in the years 2010, 2012, 2016 and 2017, as shown in graph No. 11.

In 2017, deforestation was 1.8 times more and in 2016 it was 1.6 times more than that indicated by the MMAyA / ABT in the same year.

Graphic No. 11
Evolution of deforestation nationwide (2000-2017 (Thousands of Has)



Source.- Built on data from MMAyA/ABT , GFW y PROBIOMA.org.bo

[59] There are 10 municipalities (Pailón, San Julián, San Ignacio de Velasco, San Pedro, Charagua, Santa Rosa del Sara, El Puente, Ascent of Guarayos, San José de Chiquitos and Cuatro Cañadas that in 2016/17 presents the deforestation rate highest annual corresponding to 15.5%) that report the greatest loss of forests and they are in the department of Santa Cruz, with soy as the main crop.

v. It pollutes the water and generates an aquifer deficit.

The monoculture of soybeans, as well as the extension of the agricultural frontier for this monoculture, have a direct impact on water (not only because the agrochemicals used to produce soybeans strongly pollute the water) and also in deforestation.

When deforestation, in the absence of forests, water is no longer released into the atmosphere in a gaseous state (water vapor that cools at a certain altitude and condenses into

clouds). Therefore, no clouds[60] are generated, also affecting the decrease in rainfall of the towns near to the soybean crops.

Some years ago, the PLUS (Land Use Plan) of Santa Cruz identified the expansion of the agricultural frontier, that is to say deforestation, as one of the main causes for the increasing frequency and intensity of floods, drought and erosions[61].

vi. It negatively impacts the seeds, which are the heart of food security and sovereignty.

The use of transgenic soybeans, in particular those that come from large Transnational Corporations, has a negative impact on the traditional seed system because it establishes a specific commercialization system for these seeds dependent on private companies, as well as a specific system for the conservation and commercialization of transgenics.

[60] Formation of clouds that are normally dragged from the Amazon and collide with the Cochabamba mountain range. With fewer clouds, less rainfall is generated, and with less rainfall there will be less water going down to the east, which creates an aquifer deficit and drought.

[61] In addition "that directly or indirectly affects biodiversity, the loss of species of plants and animals of their habitat, the loss of carbon sequestration capacity and the atmospheric accumulation of greenhouse gases, and the reduction of biomass "(Gobierno Departamental Autónomo de Santa Cruz 2009. PLUS of Santa Cruz).

SECOND PART

AN ESCASAMENTLY MENTIONED RIDERS: THE INTERCULTURAL

The various studies / research conducted and / or supported by institutions on the situation and problems of the soy complex, describe, among other things, the different actors in the complex and the role they play.

However, although they are exhaustive and very valid scientific studies, which reveal a little known situation, these studies lack analysis or explain in depth the role played by an actor who for years has become an essential link in the Bolivian Soyero complex: soy producers that are now called Intercultural.

1. WHAT DOES RESEARCH ON INTERCULTURAL FARMERS ARGUE?

In summary, several of the studies / reports carried out[62] on the soybean complex in Bolivia argue, among other aspects, that:

• "….. .. (peasant farmers) are those who struggle to survive within the soybean value chain".

• "… .They are forced to join the last link of agribusiness under highly unfavorable conditions".

• "… .. peasants are incorporated into the soy system adversely (for low wages, for technology and supplies, for capital ...).

• "…. There is a new State-Capital alliance and as a result, small (soybean) farmers are marginalized and excluded".

• "…. Their production conditions are difficult ... for example, they don't have credits".

• "... their production costs (are high) do not cover their expenses ..."

• "….They do not have labor regulations (laws) that protect them as rural workers producing GMOs; of big capital and agribusiness (… absence of a labor regulation that defends the interests of the peasantry)".

• "……. many (of peasant farmers) do not know the science behind transgenic seeds and are not conscious that agrochemicals remain in the soil for many years after their use."

• They recommend that: "… .. (The organization) is crucial today… organizing can bring more benefits…… organizing to: a) Improve access to land… ..b) improve access to markets ... c) facilitate the participation of small producers ... ... so they can improve the results of their work, satisfy demand and reduce rural poverty and obtain food security.

From that perspective, it is noted that small farmers and peasants are victimized workers and forced to integrate into the GM soy complex.

---

[62] Ben M. MacKay (2018); Colque and Urioste (in Ben M. Mac Kay -2018); TIERRA Foundation "Small producers producers opportunities and threats" (Cartilla juin/ 2017), among others.

2. WHO ARE THE INTERCULTURAL?

They are families of peasant migrants who arrived mainly from Cochabamba, Potosí and Chuquisaca in the late 1970s[63] to the areas of Yapacaní, San Julián and others[64] as part of the colonization process in the context of the PDRI (Integrated Rural Development Program) funded by the World Bank (US $ 20 million) to solve the problem of peasant poverty in the western part of the country through the creation of new human settlements on tropical agricultural borders (Source: Population Policy Project. Ministry of Planning 1980).

Most of the families settled in directed and oriented settlements. In Yapacaní the system was oriented, creating 16 colonies for 1,779 families with 89,950 hectares for approximately 7,116 people. Access to land for new settlers It followed a slow, mediated and partial process.

In the San Julián area, the system was managed creating 27 colonies for 1,392 families with 69,500 Hectares, for approximately 4,172 people. Unlike Yapacaní, in San Julián, access to land was immediate and without bureaucratic obstacles.

Each colonist family was provided with a plot of 50 hectares[65], although there were minor modifications in the San Julián region, since 9% of the colonist were provided with 2 plots (each of 50 hectares). Also, approximately 15% of the colonist bought land in the various NADEPAS (Associated Nucleus of Agricultural Production) that were part of the radially configured gaps, as in the Casarave gap for example. (Project BOL / 78PO1 Ministry of Planning 1979).

The settlements provided for the construction of roads, deforest, food assistance, communal water and health centers along with technical training; aspects that in the gaps nearby to the main road were partially met and not in the furthest gaps, which caused serious social and health problems.

Agricultural production in the colonies was done manually, with very little machinery (rented) but diversified, registering at least 14 products (rice, corn, cassava, peanuts, beans, fruit diversity - bananas, pineapple, citrus) whose main destination was family self-consumption, with the exception of rice[66] (its main source of income) with higher productive yields than in other similar areas (due to the fertility of the land).

Its main activity was agriculture but a segment of the colonist combined their independent agricultural activities with other complementary activities (trade, transport) and also as rural salary workers.

---

[63] Like the establishment of foreign immigrant colonies (Japanese, Mennonite and Okinawa), in the late 50s and 60/70.

[64] Actually the settlements of colonies directed in Santa Cruz were Yapacani / Puerto Greter; Buen Retiro; Cotoca; Norte de Montero / Mineros / 4 Ojitos, Huaytu-San Pedro-Chané / Piray and San Julian in an earlier period; all of them under the Colonization Program CBF-INC (source: Colonization Program CBF-UN).

[65] Actually 48 hectares. Well, 2 hectares. They were scheduled for the communal area (Squares, sports fields, school, health center and others).

[66] The 25% of the total production was destined for sale to merchant intermediaries who paid prices well below the Montero market, between 40 - 45% of the real price.

From the mid-1990s, these colonist ventured into the production of transgenic soybeans, now becoming an important actor not only in the field of soybeans but also at the socio-political level and in the Bolivian salaried rural peasants.

To this population of colonist, various functional actors of the MAS government are also added[67], both former officials of various ministries and former leaders of the various social organizations (CSUTCB-Bartolinas Sisa and others) to whom the government gave large extensions of land and now cultivate transgenic soybeans, despite having initially and repeatedly sustained the governmental discourse of food sovereignty, love of mother earth, the prohibition of the use of transgenic seeds and others.

3. WHAT THE INTERCULTURAL DOES?

i. They are inserted in the transgenic soy complex

According to the association of producers, interculturals represent a little more than 78% of soybean producers in Santa Cruz, cultivating approximately 10% of the total surface area of that product[68]. This means that in 2018 they produced 278,042 MT (of a total of 2,713,681 MT in 2017/18) considering the average yield of 2.19 MT / Ha (ANAPO Annual Report 2018).

Being producers of transgenic soybeans, interculturals have assumed all the practices and actions that this productive system implicate, that is, they buy and use transgenic soybeans; agrochemicals - many of them prohibit internationally - damaging the land, polluting water, biodiversity and the environment.

They are also those who contribute to the heavy deforestation already described above, through deforest of their land and surrounding areas to cultivate more extensions with soy (for this reason, the government facilitated them and forgave the overflow through Law 741).

On the other hand, by extending the cultivation of soybeans, they have stopped producing other food crops[69], losing productive and consumption diversity, and assimilating monoculture to increase the export model.

With these actions, they are supporting the operation of the soy system, that is, the interests of large capital by exercising a model incompatible with peasant and indigenous family

[67] According to the INE, of the total population of soybean producing areas, 9% arrived after 2009 with the government party (MAS).
[68] That reached 1,269,600 hs have cultivated in 2017/2018, in the integrated zone (Municipalities of San Pedro, F. Alonso, Yapacaní, San Julián Norte, El Puente Norte; Okinawa and the South Mennonite Colonies), in the East Zone (Pailón, Cuatro Cañadas; San Julián; El Puente; San José de Chiquitos, Guarayos) and with the recent incursion into San Ignacio de Velasco (ANAPO 2018).
[69] Now they are dedicated to soybeans for export, but tomorrow they can change to another product whose price is high in the international market. This modality will not change as long as the State gives priority to international markets and export products, even in spite of its discourse on food security and sovereignty. If the State truly seeks national food security and sovereignty, it would support with adequate policies to recover exhaust land, recover seeds, increase productive yields, diversify production, combine agricultural and forestry, reduce production costs, support transformation / processing of products ... through subsidies to productivity (not to commercialization as EMAPA currently does), training, adequate and accessible credits, adequate machinery to the floors, short marketing circuits among others.

farming. They justify their actions in the name of poverty, lack of economic income and ignorance of the impact of GM soy[70].

ii. They demand the government for the liberalization of transgenics

As this is a social movement linked to the government party and in its constant search for greater benefits with soybeans, and given the current impossibility of empowering some phase of the soy system (of export management for example, of the supply of agrochemicals or of the transgenic seeds) they make the game to the great capital becoming spokesmen of this one and of the agroindustrial ones, manifesting constantly in favor of the release of transgenics, whether through the press, TV, demonstrations in the streets of the city of Santa Cruz and / or public pronouncements[71].

They have created some organizations[72] through which they argue that transgenics are necessary (for corn, sugarcane, rice, corn (Bt), cotton, soy, wheat, sorghum) for their virtues and to deal with pests such as the worm cogollero[73]; to improve the productive yields that are very low with respect to the yields achieved in other countries; and to better face drought / floods.

They also suggest that ...

> "These requests must be framed in the Political Constitution of the State and in the Law of Mother Earth; ... There must be a regionalization of transgenics[74] and the early creation and operation of a National Biosafety Committee to regulate the use of genetically improved seeds[75]".
>
> (Deisy Choque, executive of the Single Federation of Peasant Workers of the Four Provinces of the North of Santa Cruz - February / 11/2019 El Deber).

While these organizations facilitate the participation of the (small) intercultural farmers, they have become the spokespersons and spearheads of the economic and political interests of the other actors in the soybean complex, calling for more transgenic, new regulations and legal modifications.

iii. Demand for more Lands

For interculturals, owning more land is an important active, not only to continue to depend on soy agribusiness and large capital (and thus obtain the necessary inputs for the production of soybeans and the sale of this) but also to market / commercialize the lands[76].

---

[70] Some intercultural leaders justify their actions arguing that "they don't know of the damage for the introduction of the transgenic seeds" (Ben M. McKay 2018).
[71] See PROBIOMA 06/7/2016; Página Siete 07/15/2017; El Deber 01/25/2019 between others.
[72] The FSUTCPA - 4PN; CAPPO; ACIPAC; APPAO (Following the advice of the training received by the NGOs ?
[73] Plague in 2016 that attack from northern Argentina.
[74] As if there was no contamination by air, genes and microorganisms.
[75] Request that was immediately rejected by various national organizations / institutions (the Tropic and Chaco Agroecological Platform; SALP; the Confederation of Peoples of the East, the Bolivia Transgender Free Platform (https://drive.google.com/file/d/16I1Tmn93gOgc3d6teIoF9LAmFP6fD808/), among others, but accepted by the government with the DS 3874 of April 17, 2019 that authorizes the National Biosafety Committee to establish abbreviated procedures for the evaluation of Soy.
[76] Becoming the new landowners in the east of the country

For this purpose, they have not hesitated to take / traffic / overwhelm the lands and territories of the Indigenous Peoples and national reserves such as the taking of land in the Lomerío-Guarayos area (Ben M. Mac Kay 2018 page 5), in the Chore or in the TIPNIS.

According to the former director of INRA (León Rodas) in INRA there are more than 100 processes against land traffickers and it is a big problem without solving... "It was found that there are people who pretend some properties. It is a big problem to face"[77] (04/18/2019 El Deber)

Mr Rodas and the report on the "Public Accountability - Final INRA 2018" indicates that so far 86.1 million hectares (84% of the total) of land have been cleared, but both INRA sources do not report who they are the new owners of land or where they are located.

On the other hand, the government of Santa Cruz demand INRA/Santa Cruz several times for reports on the endowment of land in Chiquitania (municipality of San Miguel de Velasco) for the delivery of land indiscriminately to non-local families[78], without response until the date (04/15/2019 Página Siete).

A recent report about INRA (FTIERRA, 01/23/2019 Página Siete) indicates that this institution is not being able to face the problem of traffic and subsidence of fiscal lands, indigenous territories and national reserves[79].That there are people who despite having land, are accessing new lands[80]. That there is no equitable distribution of land as there are at least 100 properties that exceed 5,000 hectares, which is the limit set by the Constitution. There is also no data on who is benefiting from the titling of fiscal lands and on what size of ownership. (FTIERRA, G. Colque 01/23/2019 Página Siete).

iv. They make requests that outline agricultural public policies

In the "First National Meeting of Small Producers of the Unity Pact", held at the Chuquiago Marka Fairground in La Paz on May 17-18 / 2018, there were various requests from intercultural delegates to President Evo Morales (who personally led part of the meeting) showing the concrete actions of this social sector as well as their aspirations.

The main requests raised[81] are summarized in:

---

[77] However, it does not provide more information about it (¿where is that traffic carried out? ¿who is involved? ¿in what situation are the processes? ... how much land are involved?)

[78] The denunciation of the Government indicates that INRA granted thousands of hectares of land to 37 families that are not from the place, which caused a series of protests from the authorities and residents of the place.
The newspaper Pagina Siete (04/7/2019) also register that on March 30, 2019, about a thousand people attended the call of the Pro Santa Cruz Committee to meet in the central square of San Miguel de Velasco in defense of the Chiquitania menace by the arrival of people from the west, as there were INRA authorizations for the settlement of 69 communities in 130 thousand hectares of the Chiquitan region. It also presents various testimonies of indigenous Chiquitanos affected by the subsidence.

[79] For example "the case of Río Negro where there is a large Mennonite settlement, where there was already an eviction resolution since 2009 and the Government does not enforce that resolution".

[80] This is the case of "the Tucavaca reserve, where the beneficiaries, the Tupac Amaru Community, were all from the west, where they already had land. This shows that communities are being created and are giving fiscal land to people who, in many cases, already had land. In other cases, they are people who come from the Tropic of Cochabamba".

[81] In open contradiction with the requests of the delegates and organic producers who attended the event.

. We need more land, so we want the Mennonite lands since the land is for Bolivians and not for foreigners.

. We also want to distribute the lands of the department of Pando ... there are many lands fiscal and unused.

. In the east there are many free lands (that of the Indigenous Peoples ... the natural parks ... the forest reserves) and very little population ... those lands must be redistributed to us.

. The government must provide us with the direct purchase of agrochemicals because the intermediary traders present in the places of soybean production, sell us very expensive, in addition to obsolete products.

. That the government intercede with agribusinesses to improve sale prices of soybeans.

. That the government facilitates the direct export of soybeans because the agribusinesses of Santa Cruz (and the Brazilians and / or Paraguayans) pay us very little ... international prices are higher than what they pay us in Santa Cruz.

That agricultural insurance also covers soy producers.

. That there is banking credit for producers (intercultural) and at low interest rates.

All these requests and claims show on the one hand the way in which agricultural policies are delineated in the country (since several of the applications are already in the process of being implemented and or legalization) and also how this social sector wishes to be included socially and economically in the soybean complex, but no longer in the last link of the appropriation of soybean capital income.

v. They create a socioeconomic differentiation between them.

The various studies on soy maintain that small (intercultural) agricultural producers are marginalized and excluded from the soy complex, however, as the different data and information show, there is a simultaneous process of incorporation / marginalization.

There is an intercultural sector that is in the process of incorporating the soy complex along with the agro-industrial and large capital at the expense of generating greater marginalization within its sector. This means that there are new power relations between the intercultural themselves, between those who have more resources and are integrated into the soybean complex and those who have fewer resources and are marginalized, which can be checked by briefly analyzing certain variables.

In the possession of agricultural machinery. In the various soybean producing areas there are intercultural farmers who own agricultural machinery (harvesters, fumigators, tractors) evaluated at more than US $ 100,000 each, which they rent to large and small producers, displacing manual labor and thus transforming the production process.

For example, according to the 2013 National Agricultural Census (INE, CNA), in San Julián, 6% of the farmers have tractors and harvesters, and 17% in Cuatro Cañadas[82].

Other studies (Suarez, Camburn and Crespo 2010) indicate that one third of the farmers in San Julián and Cuatro Cañadas own a tractor.

Although both sources of data are not similar and show large differences in the availability of machinery, it is clear that among the intercultural there is a small sector that can be classified as medium / large capitalized producers; and a large sector that does not have machinery and that must go to it through the rental of machinery, which affects production costs and income.

Interculturals that do not own machinery must rent it, since one day of machinery means 25 hectares harvested (previously they hired between 8 to 10 workers to harvest one hectare).

Usually they rent machinery from interculturals that have machinery. As they do not have capital or access to formal credit of the financial system, they establish contractual agreements with intercultural (and agro-industrial) companies that have machinery, to those who pay for the service with the harvest itself or in cash. They also go to the lender to obtain credits but in conditions even more disadvantageous, with extremely high and speculative interests.

In both cases, the intercultural is indebted and depending on the price of soybeans quoted by the oil producers, you can obtain profits or losses.

On the other hand, the intercultural ones that own machinery work their lands with their own machinery (tractor, combine, fumigator) so their production costs decrease and their

[82] The possession of this machinery shows that the areas where intercultural areas are located with soybeans are very privileged compared to the rest of the rural areas of the country where the productive units of family farming are located. For example, in the region of the "valleys of the North of La Paz", which includes 11 municipalities in an area of more than one million hectares and more than 100,000 inhabitants whose main activity is agriculture, the CNA (2013) registered as only 11 tractors, 2 harvesters with engine and 1 thresher with engine (cited in Prudencio J. 2018).

profits are higher, in addition to having the extra income for the rental of their machinery to the other intercultural and even some large agribusinesses who do not have machinery because they find it very expensive to use the operators for sessional jobs.

According to studies, "this is the ideal type of producer to which all small farmers aspire and it is the one that attracts more entrepreneurs to the soyero complex. However, those who retain this type of profit represent between five and 20 percent of the total soy producers" (Ben M. Mac Kay (2018).

Another factor of differentiation between the members of the intercultural sector is occupation and working conditions.

Among interculturals with resources, such as several of them were and are government officials (MRDyT) and former leaders of social organizations (Bartolinas Sisa, CSUTCB), large tracts of land were granted[83] and produce transgenic soybeans with agrochemicals. They have accumulated land and have reached a capital that has allowed them to acquire machinery for harvesting and planting[84]. Their relatives and relatives manage these lands while they continue to perform functions in the cities (as Assembly Members of the Governments; advisors to INRA and / or MDRyT among others) and also to perform political functions in support of the governing party.

They do not consider agriculture as the first activity, although in the ANC they declare as such.

On the other hand, among interculturals without resources, such as labor has been displaced by the soy system (by machinery, supplies, etc.), the majority of that workforce now engages in self-employed activities in the municipalities / nearest towns such as San Julián and Cuatro Cañadas, such as merchants, taxi drivers, minibus drivers, mechanics, construction workers, road workers, among others. It is a rural workforce that has been displaced from the countryside, now dedicating it self to temporary and precarious jobs, although agribusinesses (ANAPO, IBCE) declare that soy generates more than 100,000 jobs.

Several investigations have shown (Suarez et al. 2010; Ben M. Mac Kay 2018; Pérez M. 2007) that the jobs generated by the soybean complex are located in transportation (in harvest period only), in processing[85] and in cleaning / maintenance of silos, jobs which tend to precarious, seasonal, sporadic, obey specific contracts and flexible agreements that generate uncertainty.

---

[83] At the beginning of the possession of the lands and the production of transgenic soybeans, before the mechanization of the lands, the new owners (at that time, leaders of women's organizations) hired and brought women from the rural regions of Chuquisaca and Potosí for the harvest of soybeans (not hiring local people), paying them low wages and arguing that this generated employment and greater participation of women. They also accessed financial resources (from the Indigenous Fund for example) to support projects for the participation of women (chicken raising for example). A greater detail on the process of formation and initial participation of these leaders (before their change and misrepresentation) (cited by Jeppesen Anne Marie, 2015).

[84] Machinery that they rent for hours to the rest of the intercultural ones, at market prices, thus obtained great profits.

[85] "Many of the storage and processing centers employ between 2 to 6 full-time employees, 7 to 14 part-time technicians, and another 7 to 14 part-time workers. In addition, the drivers of internal transport trucks are hired during the harvest period that covers only a few months of the year and without any safety or labor benefits " (Ben M. Mac Kay 2018).

vi. They have access to financing.

Access to financing is another variable that shows the privilege enjoyed by interculturals.

Because of their relationship and gear in the soyero system (that is, with medium and large producers and large capital), interculturals have access to the financial system through their joint organizations (credits with collective support), line of credits for export products only (such as soy, sorghum, sunflower) which is denied to the rest of the peasant and indigenous agricultural producers in the country, who produce products from the basic food basket.

Another source of access to intercultural financing is the 150 million dollar Investment Fund created by the government in January / 2017 with resources from the AFPs (Administrator of the Pension Fund) to cover the debts of farmers with commercial houses and the suppliers of agricultural inputs (seeds, agrochemicals, machinery) thus benefiting the agribusiness company[86], the large producers and the intercultural ones.

In reality, the financial system is part of the soyero gear because it not only grants credits to intercultural soy producers (under the label of joint organizations) but which also just opened a specific line of credit for soy[87].

In view of the extension of the agricultural frontier for soy production and the opening of biofuel production, the financial system also wishes to participate in the economic gains of the transgenic soy system, so it established the opening of credits "for the expansion of crops, the use of biotechnologies, the manufacture of biofuels, silos, machinery and equipment, as well as seeds, fertilizers, agrochemicals and fuels, among others with the best conditions in terms and interest rates"("Banco Fassil promotes agriculture with BioFassil, the first product to develop biofuels in Bolivia" (03/21/2019) (https://www.fassil.com.bo/novedades/sociales/banco-fassil-impulsa-el-agro-con-biofassil- the-first-product-to-develop).

This also means opening the business of soy and biofuels to anyone who invests in the Fassil bank; It will generate profits from a distance.

On the other hand, the World Bank (WB) also encourages and supports this system since the International Finance Corporation (IFC) that is part of the WB, under the pretext of climate change and sustainable development, agreed to advise to BancoFassil "and support that pioneering initiative that reflects creating markets."[88]

In this way, the government and its agrarian policy fully complies with what the World Bank proposes: "That the poor become capitalist farmers within the system agroindustrial; that they become wage-earning rural workers in or out of agriculture and that they migrate to the cities "(World Bank 2007, cited by Ben Mac Kay 2018).

[86] That it became a guarantor of the credits of the producers provided that they have an anticipated contract of sale of their production (thus forcing them to sell them their production).
[87] Banco FASSIL that since March 2019 is willing to grant all kinds of credits for the expansion of soybean crops and the use of biotechnology for biofuels.
[88] "IFC Management for the Andean region. Fassil newsletter "Page Seven 05/4/2019

vii. They have left the peasant cultural practices.

One of the aspects that most attracts attention in the intercultural social sector, as I noted in other articles[89] - is that they are losing their cultural references, they are losing their traditions, their ways of "doing," of producing, and their productive logic - and they are replacing it with a technological "package" (as the CAO calls it), that is to say by mechanized technology, more transgenic seeds and more agrochemicals. Even their own family labor (creating family unemployment) is replaced by machinery.

They are separating the reproduction of the seed from the peasant farmer - a fundamental characteristic for the country's food sovereignty - using / buying the transgenic seed. This means that they no longer reserve part of their harvest for the seeds of the next planting (since they have to buy the transgenic seed), they can no longer complement their crops with others as they did in their places of origin or their ancestors, they can no longer do integrated pest management as they have to fumigate with increasingly powerful agrochemicals.

They are thus losing their productive rationality (which consists of diversity and complementarity, among others), their ancestral knowledge developed and transmitted by generations, and their socio-cosmic nature (conformed by their human and non-human environment, or the nature-culture interrelation.) They are also losing the capacity they have as individuals and communities to resist, absorb, (re) adapt and recover from the different disturbances in their environment. That their resilience is important in the face of climate change.

In summary, this logic to which this social sector has entered implies not only the transnationalization of agriculture[90] but, above all, the denaturation of native indigenous peasant agriculture; and absolute dependence on agribusiness.

This action of the "intercultural" contrasts sharply with the approaches and practices of the rest of the organizations of indigenous peasant producers originating in Bolivia who request to stop once the extractive agroindustrial system based on monocultures, agrochemicals and transgenics. Rather, they propose the agroforestry system that implements the indigenous indigenous family family economy through soil / land recovery, harvesting and proper water management, the rescue and conservation of seeds, integrated pest management and phytosanitary protection, crops with coverage, productive diversity and crop rotation, technical training, the creation of food reserves and conservation techniques among others, as they pose through various instances and moments[91].

Thus, they no longer play the old roles assigned by the economy classical (producing cheap food, producing raw material for the manufacturing industry, creating jobs, freeing labor for industry and cities) or the new roles that native farmers and indigenous peoples are already performing in various regions of the Andes (www .abaayacucho.org; www.idmaperu.org;

[89] Pagina Siete 07/16/2017
[90] Industrial agriculture based on specialization and maximizing profits in the short term.
[91] In this regard, see the "Declaration of CIOEC and Peasant Organizations and Indigenous Peoples for the World Peoples' Conference on Climate Change in Cochabamba and COP 21 in Paris". (Integration Coordinator of Indigenous and Original Peasant Economic Organizations of Bolivia) 15 / X / 2015.

www.cesa.org.ec) as is to nurture the population (with the necessary amount of healthy and quality food, ensuring food security with food sovereignty), allow Earth regenerate without polluting the environment (in balance with ecosystems and biodiversity among others) and ensure the well-being of its own actors (in terms of decent jobs and sufficient economic income).

viii. They use the land without replacement.

One of the main arguments used by this social sector to request the extension of the agricultural frontier as well as the release of transgenic seeds to soybeans and other products is that productive yields[92] are low and their production costs are not covered.

And, ¿what are the intercultural production costs? According to themselves, the current production costs of one hectare of soybeans attain US $ 400[93].

The structure of intercultural soy production costs (at the present time), in relative terms, is as follows:

Table No. 4

Soy production costs according to inputs and operations			
Agricultural supplies	(%)	Operations	(%)
Seeds	14.6	Soil preparation	1.70
Seed treatment	3.17	sowing	7.34
Herbicides	13.90	Agrochemical application	8.53
Insecticides	12.19	(7 x 5 applications)	
Fungicides	14.63	Harvest	13.41
Pre-harvest desiccant	3.17	Transport	7.32
Total item Inputs	61.70	Total item operations	38.30
Total Production cost		100 %	

Source: Built based on Mc Kay 2018 e I. Barrientos of CAPPO.

. Most of the costs represent inputs (61.70%) while operating costs represent 38.29%.

. Almost all input costs correspond to imported products.

. Of the total production costs, 55.32% correspond to foreign products (seeds, agrochemicals), which must be imported.

. Other high items of total costs correspond to planting, harvesting (rental of machinery) and transportation, which as discussed above, most intercultural farmers do not own this machinery.

[92] This issue of the productive yields of soybeans is also repeatedly demanded by agribusinesses, but in none of their addresses they raise or explain the context of social relations; that is to say, they do not analyze or describe social relations within the soy complex.

[93] Isidoro Barrientos Head of the Agricultural Chamber of Small Producers of the East (El Dut 11/05/2019). Other studies on peasant producers determine at US $ 410 / Ha. (McKay 2018).

If the evolution of soybean production costs is analyzed and compared over the last decade, the largest increase in cost corresponds to external inputs (seeds, agrochemicals). It is estimated that from 2002 to 2015, these items caused an increase in production costs by 72% (Ben M.Mckey 2018).

But what attracts the most attention when analyzing costs, is that they do not include land replacement costs at all. Therefore, this production system of transgenic soybeans is called extractivist, because it is an intensive land plunder[94]. The objective of the producers is for the land to provide as much as it can, whether in the winter or summer campaigns.

Therefore, the production costs of transgenic soybeans - whether produced by intercultural, agribusiness and Mennonites - do not consider the indirect costs induced by this production system at all. They do not consider the costs of water and air production; the costs of flooding and river overflows because soils are not able to retain water; nor the costs generated by droughts; energy costs (subsidized for diesel used by threshers / harvesters); the costs of diseases that agrochemicals generate or the costs of climate warming generated by GM soy.

Neither they consider in their cost structure, the costs on biodiversity, on birds, on bees (important for the pollution of fruits and vegetables). ¿Why do GM soy producers do not pay these invisible costs to mother earth?

ix. They divide the national and international peasant movement

The Interculturals, when exercising/implementing an extractivist, monoproducer economic model, incompatible with peasant and indigenous family farming, enter into contradictory class positions with the farmers of the peasant family economy themselves, using the rest of the peasant agricultural sector to raise their claims , to pressure the government and the rest of society seeking to improve their socio-economic position regardless of the environment, the land resource, pollution, deforestation.

They thus become articulators (ingre) of the government before the great capital and agroindustrial soybeans.

This means that they are breaking the national peasant unit by playing the role of spokespersons / applicants for Transnational Corporations and agro-industrial companies before the government[95].They prefer to play that role before unity before the rest of the Bolivian peasant sector. They forgot about diversified family farming; food sovereignty, mother earth care and the Human Right to healthy, safe, nutritious and sustainable food.

They are also breaking the unity and solidarity at international level with the other peasant movements such as Vía Campesina and with the recent COPROFAM (Confederation of Mercosur Family Producer Organizations)[96] to which the Bolivian peasant movement itself

[94] For the deforestation caused; due to the excessive use of water; by soil compaction by heavy machinery; by erosion caused in the soil; for the floods caused; by the appearance of new diseases and pests caused by pesticides, among others.

[95] By requesting the government to allow more GMO crops (corn, sugarcane… ..); more diesel subsidy; further expansion of the eastern agricultural frontier.

[96] COPROFAM argue that peasant family farming must guarantee food security and sovereignty; the production of diversified, sustainable and healthy food (COPROFAM VI Global Conference, coprofam.org/201).

belongs, because they defend food sovereignty and sustainable agriculture; strongly oppose agribusiness and multinationals (https://www.grain.org/es/article/entries/5983-cloc-la-via-campesina-nuestro-camino-a-la-soberania-alimentaria).

x. The peasantry no longer constitutes the historical force of the country

The complex of transgenic soybeans has added to its capitalist, extractivist, overwhelming, mono-producer logic, a part of a social movement (the peasantry) that in the past was characterized as "the historical force of the country" (Calderón F .; Dandler J.) that advocated changes, who made advance the country, that constituted one of the sectors that fought for ethnic affirmation and identity, promoted participation processes, raised a series of just socio-economic and cultural claims before the State, defended from attempts at control and co-optation[97] by establishing various forms of struggle in relation to the different forms of historical and contemporary domination.

He was a historical actor in politics, a national actor, vital, but not subordinated to capital but rather offering alternatives for development, organization, self-conscience and forms of resistance based on his historical memory.

Today, this peasant movement is integrated into the logic of transgenic soybean plantations, so it is no longer necessary for them to be physically displaced. They are inserted in an innovative process of co-participation and co-governance, where problems (political and non-political) can be distributed among the actors in the complex, which requires mutual collaboration between them.

We are therefore faced with the formation of a new type of agricultural system, which emphasizes its orientation towards globalized markets, with intensive use of modern technology, capital mobility and with a "new global convergence of actors" between intercultural, agro-industrial peasants, the great capital and the State, with new forms of productive regulation, governed by the changing international prices of tradable agricultural raw materials in the stock market (merchandise / commodities).

[97] Although we must also remember that at certain times of the past, they have also collaborated with authoritarian military regimes in exchange for privileges and concessions.

BIBLIOGRAPHY

. Asociación Nacional de Productores de Oleaginosas-ANAPO (2015) "Memoria anual 2015".

. Asociación Nacional de Productores de Oleaginosas-ANAPO (2018) "Memoria anual 2018".

. Autoridad de Fiscalización y Control Social de Empresas (AEMP)(2013) "Estudio de mercado del grano de soya".

. Álvarez, N. (2005) Cuatro Cañadas: Tierra y Desarrollo Rural. (FTIERRA)

. Ben M. Mac Kay (2018) "Extractivismo agrario. Dinámicas de poder, acumulación y exclusión en Bolivia" (FTIERRA).

. Ben M. Mac Kay (2011) "Legitimation foreignization in Bolivia: Brazilian agricultura and the relations of conflict and consent in Santa Cruz, Bolivia".

. Banco Mundial (2007) "Agriculture for development" Report 2008 Washington, USA

. Calderón Fernando, Dandler Jorge (1984) "Bolivia. La fuerza histórica del campesinado" CERES, Edic. El Buitre La Paz

. Crespo S (2010). El pequeño productor en el cluster de la soya: caso cruceño" PROBIOMA.

. Crespo Miguel Ángel (2019) Entrevista al director de PROBIOMA (Santa Cruz).

. Carvajal Roger (2019) "Transgénicos en Bolivia: Impactos en la economía, el medio ambiente y la salud" SELADIS-Facultad de Bioquímica. UMSA.

. Colque G. (2014) "Expansión de la frontera agrícola: Luchas por el control y apropiación de la tierra en el oriente boliviano". (FTIERRA).

. FAO, IFAD,WFP (2015) "The State of food Insecurity in the world: Meeting the 2015 international hunger targets :taking stock of uneven progress » (Rome-Italy).

. Gobierno Departamental Autónomo de Santa Cruz (2009) Secretaría Departamental de Desarrollo Sostenible Dirección de Ordenamiento Territorial y Cuencas "Plan de Uso del Suelo" (PLUS).

. Instituto Nacional de Estadística INE (2017). Diversas estadísticas página web

. Instituto Boliviano de Comercio Exterior - IBCE (2014). "Soya: su importancia como cadena de valor agroproductiva en Bolivia" Santa Cruz-Bolivia.

. Instituto Boliviano de Comercio Exterior - IBCE (2014). "Datos estadísticos".

. Instituto Nacional de Innovación Agropecuaria y Forestal (INIAF) (2015) "Semillas Santa Cruz, Solicitud de Importación Recepcionadas". Santa Cruz.

. Jeppesen Anne Marie Ejdesgaard (2015) "Identidades entrecruzadas: el movimiento de 'Las Bartolinas' en Santa Cruz, Bolivia". Institut for Engelsk, Germansk og Romansk.

. Prudencio Julio (2017) "El sistema agroalimentario en Bolivia y su impacto en la alimentación y nutrición. Análisis de situación 2005-2015".

. Prudencio J. (2018) "El sobrepeso y la obesidad. ¿Reflejo sólo del exceso de comida o de un sistema agroalimentario en crisis?"

. Prudencio Julio (2018) “Informe consolidado del área económica y productiva de la región valles Norte del depto. De La Paz”. IDEA (Instituto Internacional para la Democracia y la Asistencia Electoral) y Gobierno Autónomo Departamental de La Paz (GADLP).

. Pérez Mamerto L. (2007) “No todo grano que brilla es oro. Un análisis de la soya en Bolivia”. CEDLA, La Paz.

. Suarez R.V, Camburn M. y Crespo S. (2010) “El pequeño productor en el cluster de la soya: caso cruceño”. Santa Cruz (PROBIOMA).

. Theodor Friedrich (2019). Entrevista al representante de la FAO en Bolivia La Paz.

. Urioste M. (2012) “Concentration and foreignisation land in Bolivia” Canadian Journal of Development Studies.

BOLIVIA

Overweight and obesity

REFLECTION ONLY OF THE EXCESS OF FOOD OR AN AGRICULTURAL SYSTEM IN CRISIS?

Julio Prudencio Böhrt

La Paz, agosto 2018

INDEX

II. ANALYSIS OF THE EVOLUTION AND SITUATION OF OVERWEIGHT AND OBESITY IN BOLIVIA

It is important to mention that the country has made efforts in recent years to reduce poverty and malnutrition, with remarkable successes. But just as it is clear that while malnutrition and hunger have declined in the country, the rates of obesity and overweight are increasing significantly.

According to data from the National Health Surveys conducted in 2008 and 2016, overweight and obese people have increased in the last 8 years from 49.7% to 57.7%[98], as shown by the data in table No.1

Table No. 1
Classification of the national population according to the Body Mass Index (BMI) (2008-2016)

Clasificatón accordingto the BMI	2008	2016
BMI Average	25.8	26.9
Thin (BMI<18.5)	2.0	1.8
Normal (BMI 18.5-24.9)	48.3	40.6
Overweight (BMI 25,0 – 29.9)	32.3	32.1
Obesity (BMI > 30)	17.4	25.6
Overweight and obesity (4+5)	49.7	57.7

Source.- Built on the basis of INE data (ENDSA 2008 and EDSA 2016)

Between 2008 and 2016, the population classified as thin has decreased (0.2%) as well as people with normal weight by almost 8%, having increased in the same percentage, people with obesity, and staying in the same level, people who are overweight.

These percentages show in general that as the years pass by, there is a tendency in the country to increase obesity. According to data from the Ministry of Health (Epidemiology Unit, Ministry of Health and Sports) every year more than 65,000 cases of obesity and overweight are reported. In 2014, 60,658 were reported; in 2015, 71,541 were reported and in 2016, 75,290 cases, most of them located in the city of Santa Cruz, and then in Cochabamba and La Paz.

[98] According to the Epidemiology Unit of the Ministry of Health, in 1997, people with overweight and obesity made up 21.1% of the total Bolivian population, in 2016 they represent 57.7%, that is to say that in 20 years it has almost tripled (2.73 times more) the population with overweight and obesity.

III.THE POPULATION GROUPS STUDIED

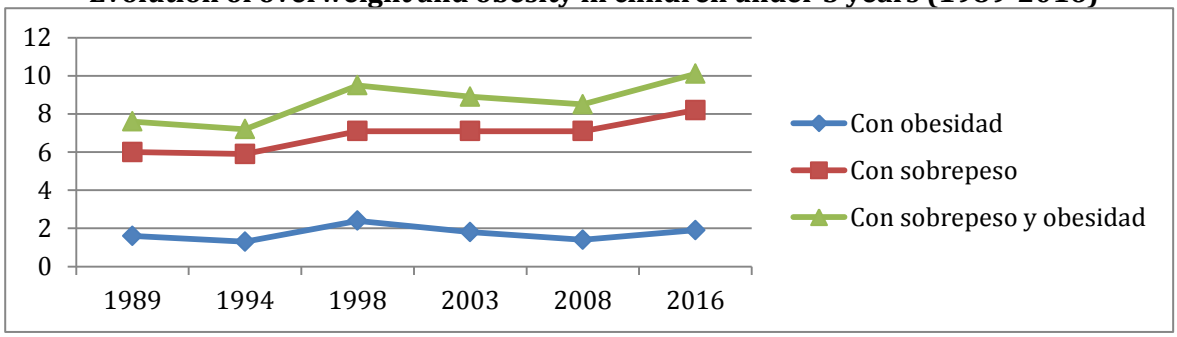
The various measurements and studies of the Ministry of Health on nutrition are carried out on social groups of young children and women based on different indicators such as anthropometric measures (weight / height, weight /age: age height) and the Body Mass (BMI); defined by the International Dietary Energy Consultative Group and recommended by WHO at the international level. This means that all countries apply the same methodology in these surveys and measurements.

a. Children

The situation of children in terms of overweight and obesity has a variable trajectory as shown in graph No. 1, between decreases and increases, especially in recent years.

If in the year 1989 children under 5 years of age with overweight and obesity represented 7.6% of the total; in 2016 they represent 10.1%, due to overweight (which pass from 6% to 8.2% in the years considered)[99] and to a lesser degree due to obesity (which had an increase, but not as significant).

Graphic No.1
Evolution of overweight and obesity in children under 5 years (1989-2016)



Source.- Built on the basis of data from the Ministry of Health

According to data from EDSA 2016, overweight and obesity is double in children under one year compared with the other age groups of children (classified between 12-23 months, 24-35 months, 36-47 months and 48-59 months).

The EDSA results also indicate several aspects to highlight:

• If the results are considered by department, it stands out that in Tarija it is where more overweight children are (9.5%) followed by the children of Santa Cruz (8.1%). But if we consider obesity, the trend is reversed: there are more children with obesity in Santa Cruz (2.6%) and then in Tarija (2.1%)

• Considering the analysis by regions, in the Valleys and Llanos there are more children with overweight (7.1%) and also with obesity because in the Altiplano, children with overweight represent 5.8% and with obesity only 1.7% (that is, half of the obese children that exist in the

[99] According to World Health Organization (WHO) and Pan American Health Organization (PAHO), in 2016, the prevalence of childhood overweight reached almost 12% in Southern Africa, 11% in Central Asia, 10% in Northern Africa, 8% in North America and 7% in South America and Southeast Asia.

Valleys and Llanos).

• By sex, children are the most overweight (7.1%) with respect to girls (6.3%), and in terms of obesity, there is a light majority in boys (1.9%) than in girls (1.8%). %).

• By education of the mother, those who are more overweight and also more obese are children whose mothers have a higher level of education (7.3% and 1.9% respectively) while children with less overweight (2.6%) and lower obesity (1.4%) are those who have mothers without education, which draws great attention to the level of education and information that may be provided to mothers.

• By age of the mother, the results show that the younger the mother (15-19 years of age), the overweight children are less (5.8%) but there are more children with obesity (2.6%); whereas the older the mother (between 20-24 years or between 30-34 years), the overweight of children is the same (7.2%) and with slight variations in obesity (1.7% children of younger mothers and 1.4% of older mothers).

With regard to older children such as schoolchildren, the Global Survey of School Health (ESNUT 2012) indicates that overweight students (BMI> 25) represent more than a quarter of the school population, corresponding to female students the majority, as It is seen in the following table.

Table No.2
Overweight students (2012)

Students	% with BMI >25
Students in general	27.1%
Female students	25.3%
Male students	19.8%

Source.- ESNUT 2012

Similarly, recent studies of the School Nutrition Unit of the Municipal Government of La Paz indicate that the level of obesity and overweight of the students of the Fiscal Education Units in the municipality of La Paz is very high due to the consumption of espaguetis, sausages with french fries, soft drinks among others, and also the excessive consumption of wheat flour (pasta) mixed with fried. They registered that 21% of the students are overweight and 9% are obese, in the Educational Units of the Municipality (La Razón 03/20/2017).

b. Women

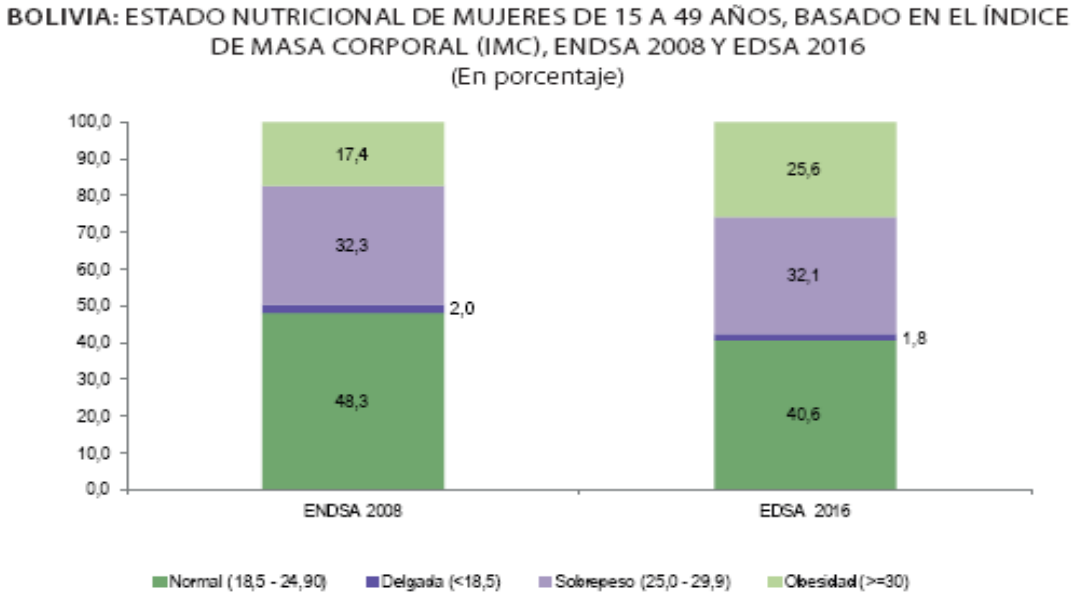
The other social group considered in the Surveys for the analysis of overweight and obesity is women between 15 and 49 years of age.

Among the measurements made in 2008 (ENDSA) and 2016 (EDSA), the nutritional status based on the Body Mass Index (BMI)[100] increased by 8.1%, since it went from 49.7% to 57.8%, as the following graph shows.

[100] The limit values defined by the International Dietary Energy Consultative Group and recommended by the WHO, are between 25 - 29.9 = overweight; and more than 30 (> 30) = obesity.

This means that over the past year, overweight and obesity have increased by more than 1%, which represents a fairly high annual growth rate.

Graphic No. 2
Bolivia Nutritional status of women aged 15 to 49 based on the Body Mass Index

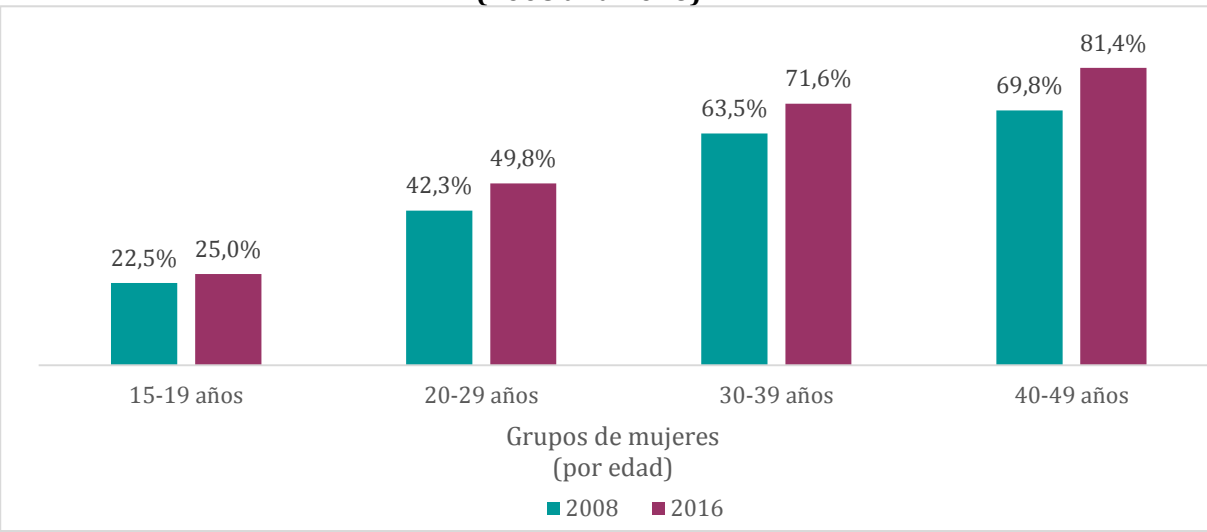


Fuente: Instituto Nacional de Estadística - EDSA 2016

This indicator of overweight and obesity (57.8%) is higher than the one in several countries of Central America such as Belize, El Salvador, Honduras and Nicaragua that hardly exceed 50% (Report of the Regional Program of the State of Guatemala, La Nación 5/I /2017).

From the point of view of age groups, graph No.3 shows that overweight and obesity increased between 2008 and 2016 in all age groups, especially between 40-49 years (increased 11.6%) and in lesser proportion between 15-19 years (increased 2.2%).

Graphic No. 3
Women-Evolution of overweight and obesity according to groups of ages (2008 and 2016)



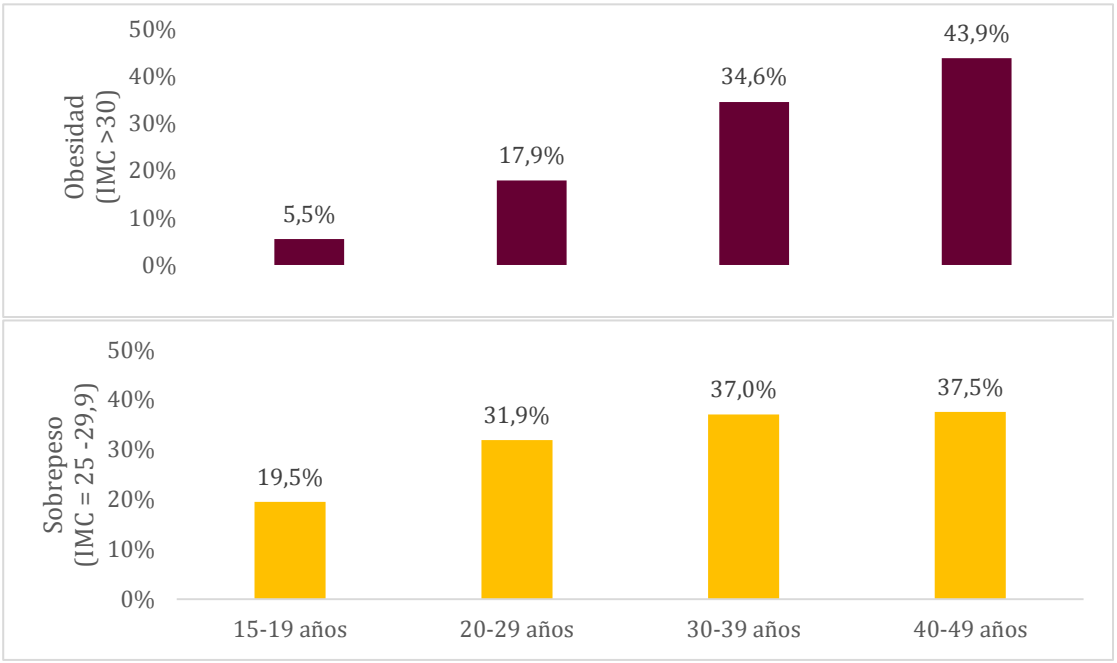
Source: Built on the basis of EDSA 2016 data.

Analyzing in more detail the indicator of the year 2016, highlights that from 20-29 years, overweight and obesity increase very strongly compared to the previous section (15-19 years), especially in terms of overweight.

On the other hand, in the 40-49 segments, the main increase is due to obesity (43.9%), which exceeds overweight (37.5%), which does not happen in the other age groups; reaffirming the hypothesis that at an older age, greater overweight/obesity, as the following chart shows.

Graphic No. 4

Women- Percentages of overweight and obesity by age group (2016)



Source: Built on the basis of EDSA 2016 data.

c. Other features

¿And what other aspects characterize the overweight / obese population?

In the general population, there are several beliefs or myths with respect to food. It is generally believed that processed and "new"[101] foods are suitable for food, and that being available in national markets, Bolivia has modernized and is part of globalization, because we consume the same as in other large cities.

On the other hand, it is thought that the consumption of inappropriate products is carried out by populations with less education, due to lack of information and instruction; or by young populations only; or populations that live in rural areas or in isolated and poor municipalities.

The results of the health survey (2016) show that inadequate nutrition is present in all populations, independent of socioeconomic status, location, age or training, among others.

[101] In the sense of being present in the markets, with some process of transformation, of not being usually produced internally, with sophisticated packaging, generally of external origin and components of a diet already universalized.

According to EDSA 2016, women without any level of education represent 34.1% of overweight women, but 31.4% of women with higher education are also overweight.

From the rural-urban point of view, there is greater overweight in the inhabitants of the rural sector and low superiority of obesity in the urban sector. However, from the point of view of the regions, it is clear that obesity in the Llanos region is much higher than in the rest of the regions, while in the highlands there is more overweight, as the following table shows.

Table No. 3
Overweight / Obese women nationwide (2016)(en %)

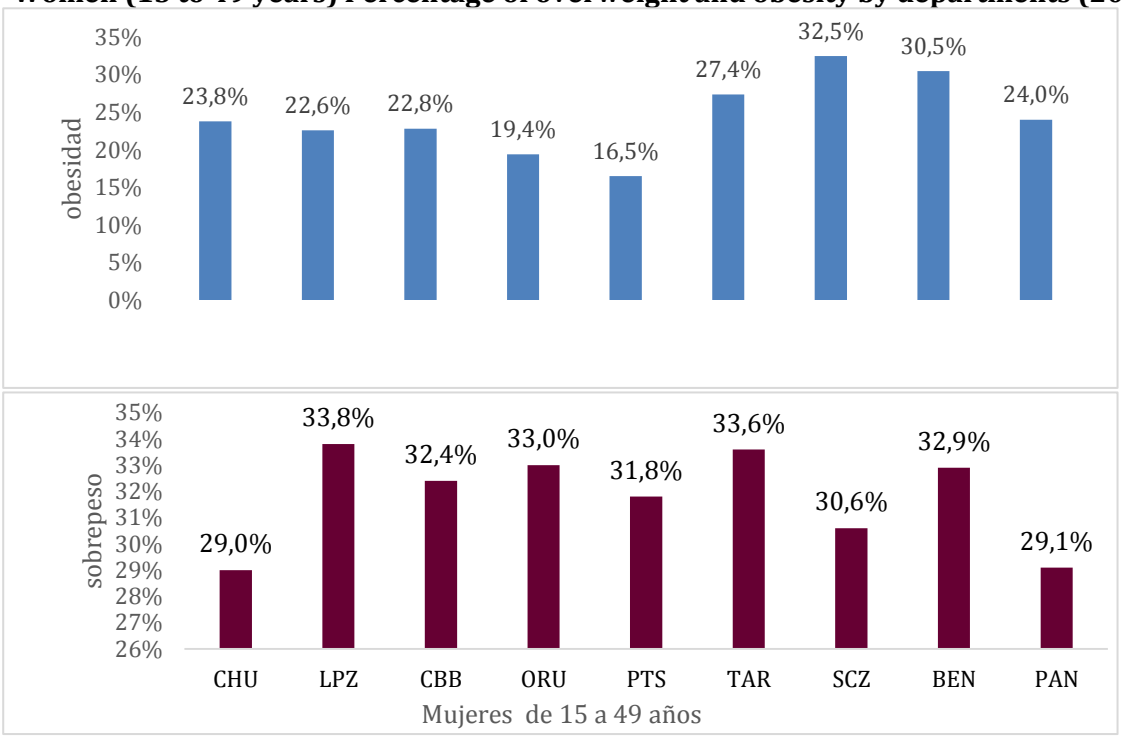
Women 15-49 years according to	Overweight (25.0 - 29.9)	Obesity (=/> 30)	Total (Overweight + obesity)
Education level			
None	34.1	30.3	64.4
Primary	35.7	39.8	75.6
Secondary	30.6	21.8	52.4
Higher	31.4	20.3	51.7
Home			
Urban	31.7	25.8	57.5
Rural	33.1	25.1	58.2
Region			
Plateau	33.3	21.0	54.3
Valleys	32.0	23.9	55.9
Eastern plains	30.8	31.9	62.7
Degree of poverty of the municipality where they live			
High poverty	32.2	17.4	49.6
Medium poverty	34.7	27.8	62.5
Low poverty	32.3	29.3	61.6

Source.- EDSA 2016

Regarding the situation according to the degree of poverty of the municipalities, in the municipalities of medium poverty there are more people with overweight, while in the municipalities of low poverty there is greater obesity. Complement the information to know

that in La Paz and Tarija there is a higher percentage of overweight women and that in Santa Cruz there is a higher percentage of women with obesity, also highlighting that Santa Cruz is the only department where obesity exceeds even overweight.

Graphic No.5
Women (15 to 49 years) Percentage of overweight and obesity by departments (2016)



Source.- Built on EDSA 2016 data

Finally, is it important to determine what factors or characteristics of mothers with overweight / obesity affect so that children have the same overweight and obesity? Is there a direct relationship between the status of the mother and the situation of the children?

The first question that emerge in this regard is: ¿are overfeed children that way because their mothers are also overfeed?[102]

Unfortunately, the EDSA does not offer these data[103], so this report uses relationships between one variable and another of the previously mentioned data.

The only direct relationship found between one sector and another is to live in the Eastern plains, since most of the overfed mothers in the 3 regions are located on the Eastern plains, where most of the overfed children also live.

In the rest of the relationships there is no direct link, because:

. Most of the overfeed children are located in the urban sector while most of the overfeed mothers in the rural sector.

. The majority of the overfeed children are in Tarija while the majority of the overfeed

[102] The same question is also posed with the other indicators, such as: How many households are malnourished children with mothers who are overweight and obese?
[103] Surely because the survey was applied to people and not to families.

mothers in Santa Cruz

. Most overfeed children live in capital departmental municipalities while overfeed mothers live in municipalities of medium poverty.

IV. FOOD CONSUMPTION

As is already known, the prevalence of overweight and obesity is generated mainly by poor diet and lack of exercise or physical activity that allows you to spend the calories accumulated in the consumption of food.

But which are the foods that most influence overweight and obesity? In this regard, sugars, wheat flour, soft drinks, fried foods (potato chips, burgers, broaster chickens, etc.), fats and oils (used and reused again and again when frying in food stalls) and food stand out and imported ultraprocessed foods called scrap (boxed soups, sweetened potatoes, etc.).

According to data from health surveys, mothers in all ecological levels and according to income levels; rural-urban sector; and by departments, they have a consumption of fats and oils that stands out as recommended in 3.15 times more; and in sugars the consumption exceeds 20.1% (ENDSA 2008). On reverse, the consumption of legumes is very low (39.1%), as is that of milk (28.2%), and cheese and yogurt (38.4%).

In children under 3 years, also influences food[104], especially breastfeeding is the most appropriate food for children of poor age. In general terms, breastfeeding between 2008 (ENDSA) and 2016 (EDSA) has decreased from 60.4% to 58.3%. While at the urban level it decreased from 53.7% to 52.4%; in the rural sector it increased from 69% to 70.9% (EDSA 2016).

Then it can be concluded that while breastfeeding decreases in general terms, it increases the consumption of fats and sugars in pregnant mothers.

V. FACTORS THAT INFLUENCE FOR CONSUMPTION

It is important to identify the determining factors and the basic and direct causes that influence the population to demand certain products that affect the prevalence of overweight and obesity, not only for the purpose of informing the population, but also to rethink the availability of food (production, imports, prices) with social and other aspects as will be analyzed later.

The growing imports

The growing imports of food and raw materials for food production are one of the important causes in the increase of obesity and overweight, because they generate a wide availability in all regions of the country.

INE data on imports show that between 2005 and 2015 food imports increased 3.3 times in value and 1.3 times in quantity since they went from US $ 242,970,000 to US $ 803,694,000 and 835,904 tons. to 1,087,760 Mt, which means that there is a permanent increase in food

[104] According to the ENDSA (2008), in babies 6-8 months of age, 60% consumed daily foods with fat and sugars. In children 18-23 months of age, 88% consumed fats and sugars daily. Unfortunately, EDSA 2016 does not present updated data in this regard.

imports and diversification; and on the other hand, an absolute lack of control because they are not subject to any regulation in terms of nutritional value.

For decades, wheat / wheat flour and derivatives have been by far the first imported product[105], but about 15 years ago another group of imported foods emerged, the "prepared products", which are becoming more and more important each year.

According to a recent detailed study on the food situation in the country[106], in 2005, wheat and wheat flour represented 20% (49.9 million US dollars) of the total value of imports, and Prepared Products represented 16.45% (US $ 40 million). By 2015, wheat / wheat flour account for 18% (US $ 143.9 million) while prepared products represent 21.59% (US $ 173.5 million)[107].

The two food groups - which have a strong incidence in overweight and obesity - represent almost 40% of the total imported by the country, and increase the availability[108] of food for the population in general.

Wheat flour increased its availability[109] from 41.6 kg / pers / year / average (2005) to 44.5 kg / pers / year (2015). This availability, which represents 124 grs / pers / day is very high for the population's consumption and contributes to an inadequate diet due to the excessive consumption of bread, noodles and other pastas made with this product- therefore, an excessive amount of carbohydrates consumed.

The availability of prepared products, also called ultra-processed foods[110], increased from 6.7 g / pers / day to 12 g / pers / day / average in the same years, that is, it had an increase of 179%. This is a phenomenon linked in part to the worldwide expansion of processed products -especially of Chinese origin- as well as the expansion of supermarkets in the last decade.

If we add to these products the availability of other products that affect overweight and obesity, such as sugar, for example, the problem gets worse.

Sugar has an increase in its availability since it went from 37.3 Kgs / pers / average in 2005 to 41 kgs / pers / year in 2015 (or what is the same from 104 grs / pers / day to 113 grs / pers / day). The WHO has just recommended that the adequate consumption of sugars be only 25

---

105 With subsidized prices to have a cheap bread, arriving this one to constitute the first food of the population since it allows "to fill the stomach giving a sensation of satisfaction". This, in turn, is used politically to keep wages and salaries low.

106 Prudencio J. 2017 "The agri-food system in Bolivia and its impact ..." from which the following analyzes are extracted.

107 Its value was multiplied by 4.3 times in those years, which on the other hand demonstrates the incipient that is the national food manufacturing industry, and the universalization of a consumption of foods alien to our eating habits.

108 The availability is calculated based on the production (+) imports (-) exports.

109 For imports but also for the increase in the national production of wheat whose marketing is subsidized by EMAPA (in this regard see Prudencio J. 2017).

110 "Ultra-processed foods are problematic for human health for different reasons: they have a very poor nutritional quality and, in general, they are extremely tasty, sometimes almost addictive; they imitate food and are mistakenly seen as healthy; encourage the consumption of snacks; advertise and market aggressively; and they are culturally, socially, economically and environmentally destructive. The penetration into the market of several of the main ultra-processed products is oligopolistic and is generally dominated by multinational companies. The growing concentration and domination of the world economy by large food companies raises serious concerns about its marketing power and its influence on consumers, as well as its political power vis-à-vis Nation-States and the consequent capacity to influence policies that affect the food supply and the consumption of food products "(FAO 2016." Map of hunger 2015 ").

g/pers /day as much of the sugars are "hidden" in other foods not considered sweet, in ketchup or tomato sauce for example. (cited by Prudencio J. 2017).

While the mentioned products increase their availability per person / day, the essential products in the diet, such as legumes and fruits, present opposite situations.

In the same years considered, the legumes decreased their availability from 34 to 31.5 kgs /pers /year despite being recommended by the WHO / PAHO as fundamental products in the diet and health of the population due to their nutritional properties (they possess Vitamin B, minerals such as iron and calcium, fibers, help prevent diabetes, obesity, protect the heart and other properties).

Fruits also decreased in their availability from 87 to 84 kgs / pers / year / average, that is, from 243 g / pers / day to 233 g / pers / day, being that the consumption recommended by the WHO for fruits is 400 grs / pers / day[111] as a minimum, foods that also serve to prevent diabetes and obesity. It highlights that this decrease in domestic supply of national fruits is inversely related to the increase in coca production, both in the Yungas area of La Paz and in the Chapare of Cochabamba.

[111] According to the cited study, the recommended 400 g / day also includes vegetables and fruits. However, if we consider the availability of both products in 2015, it would only reach a total of 315 grams / day / pers. (85 grs of vegetables and 230 grs of fruits, that is 79% of the recommended for both products). This consumption is higher than the average consumption of countries such as Nicaragua and Haiti, but lower than the average consumption of countries in the Andean region such as Peru, Ecuador and even Mexico (WHO / PAHO / FAO 2017)

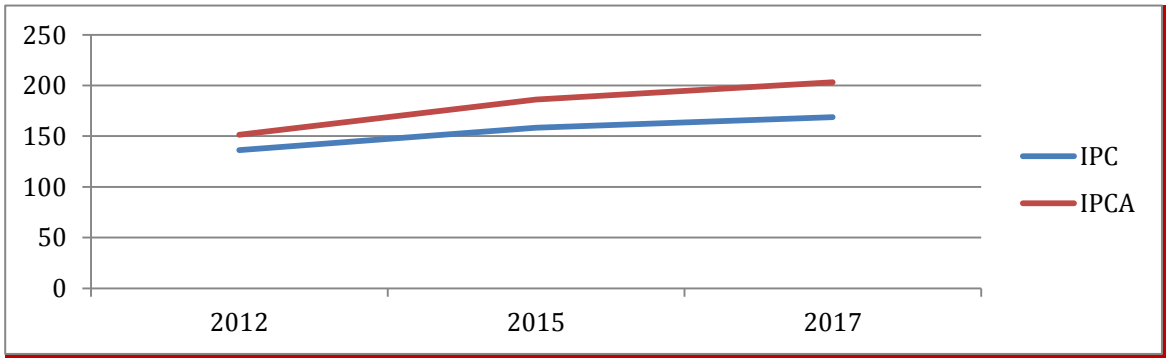
The availability of tomatoes, another fundamental product in the adequate nutritional consumption of the population, keep stagnant at 6.2 kg / pers / year / average between 2005 and 2015. This stagnation was alleviated by the increasing imports and contraband of this product in in recent years, since national production fell brusquely due to the substitution of the cultivated area of the tomato for other more profitable and export crops (in this regard see Prudencio J.2015), especially in the valleys of the department of Santa Cruz (Comarapa, Samaipata, Vallegrande among others).

ii. The low prices

The factor of prices is another important element that drastically affects the consumption of food, the quantities consumed, frequencies and especially in the type of products consumed. And several aspects influence it.

In the first place, it should be noted that within the general consumption basket, the prices of the food item is the one that increases the most with respect to the other items, and at an increasing rate, as the following graph shows

Graphic No. 6
Evolution of the CPI and FCPI



Note.- CPI = Consumer Price Index / FCPI = Food consumption price index

Source.- Based on data from the INE

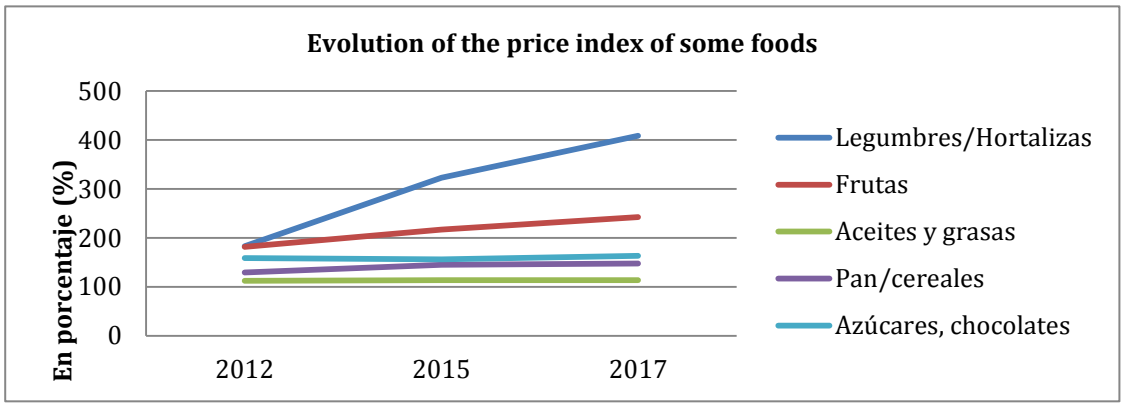
Second, it highlights that within the CPI Foods, the prices of the healthiest foods increase more than the prices of foods with bad calories (such as saturated fats, sugars or superprocessed products).

Thus, while in the period 2007-2012 the average price of oils and fats had risen by 112.68%; the breads/ spaghetti (based on wheat flour) at 129.62%; sugars / pastry at 159.09%; the richest products nutritiously as legumes / vegetables in 183.40% and fruits in 182.11%.

That trend continues in later years. By 2017, oils and fats increased by 114% and sugars by 163.75%; while legumes / vegetables in 408.85% and fruits in 242.64%[112].

[112] A detailed study on the evolution of food prices (Juan A. Morales in the chapter on Determinants of Domestic Food Prices, in the report "Strategic Review of Food Security in Bolivia" UCB 2017) indicates that between 2008 and 2015 the national average price of products rich in saturated fats such as oil had increased by 14%; wheat flour at 4.5%, these being the products most consumed by households that are below the extreme poverty line. In contrast, in the same period, the national average price of lettuce more than doubled and onion increased by 79.4%.

Graph No. 7



Source.- Built based on INE data

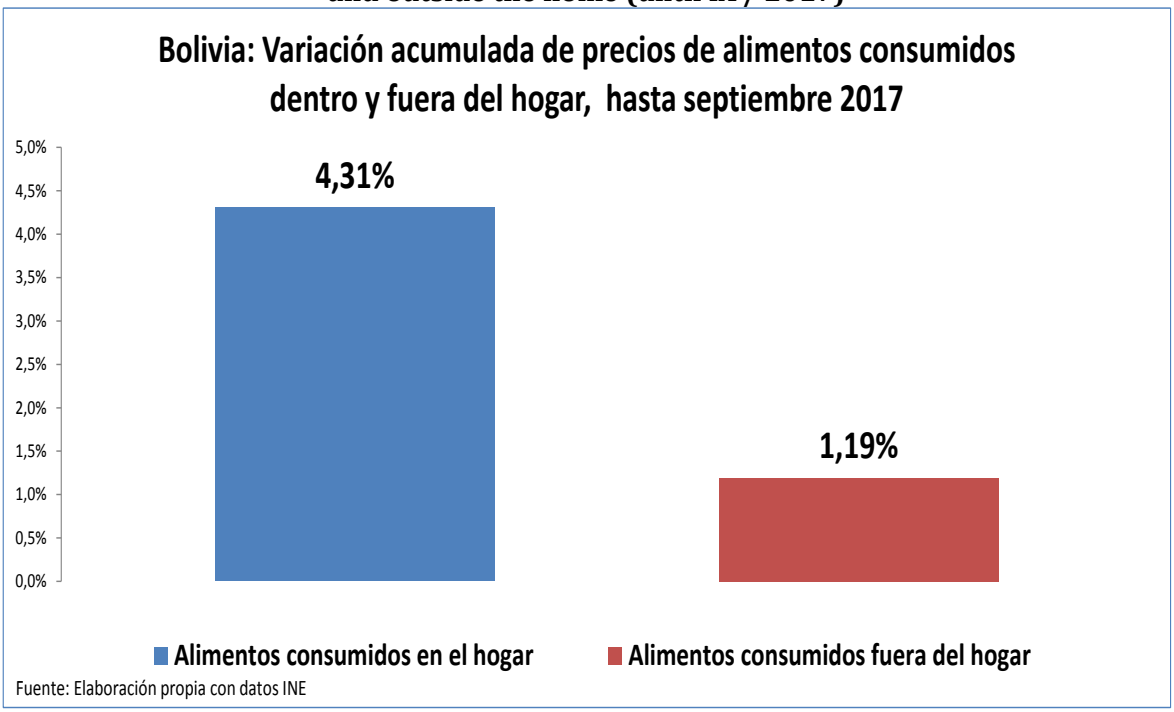
This price increase does not mainly benefit the peasant farmer [113] but rather benefits the extensive network of merchant intermediaries and the stores / supermarkets that now proliferate urban / suburban.

Accompany the previous trend, the structure of expenditure by urban households. Increase the expenses on products purchased for consumption within the home (legumes, vegetables, tubers, dairy products, meats, fruits) while reducing expenses on food outside the home (in restaurants, pensions, kiosks in the street) consuming mostly fried foods , chickens with french fries, hamburgers, sausages with french fries[114], etc.

This trend has been taking effect for some time. An example is the situation of the year 2017. According to the INE, during the management of the year 2017, the price of food consumed in the home increased by 4.31% while the price of food consumed outside the home increased by 1.19%

[113] Who continues to leave the field because his productive yields are the lowest in Latin America and the agriculture does not offer him enough income to subsist.
[114]This situation is also manifested in some large rural locations as detected by some research (see "Eat from our land?", Fundación Tierra 2015).

Graphic No. 8
Bolivia: cumulative variation in food prices consumed inside and outside the home (until IX / 2017)

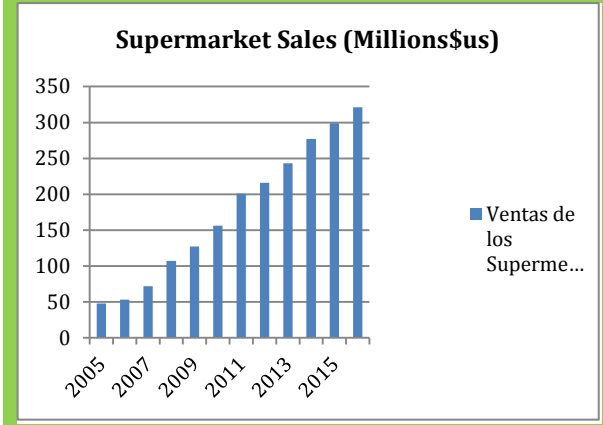


Source- INE

The government authorities consider as a great success of the economic model that people go out to eat out of the house more often, that the value of supermarket sales has increased and that people consume more chickens (fed with hormones and preparations of insane-fried way).

"..The family would not go out on Sundays to eat out and would not go to supermarkets if the economy had not improved...it would go to open markets where it is cheaper"

Luis Arce C. ex Minister of Finance (La Razón 06/15/2014)



Fuente: Ministerio de Economía y Finanzas. "Situación Económica en Bolivia 2016". La Paz

"There is an increase in the consumption o chicken meat, from 17 Kgs/person/year i 2005 to 25.8 Kg/pers/year in 2013"

2013 Management Report of President Ev Morales to the Bolivian People.

"Un 2014, the consumption of chicken pe person in Bolivia is 35,57 kgs...in the city of L Paz reached 62.4 Kgs/pers/year"

(Agroproductive Observatory of the MDRyT-L Razón 07/15/2015)

"In Bolivia the consumption of chickens nationwide rose in 2017 to 42.59 kgs/pers/year average (OAP/MDRyT-La Razón 04/17/2017)which means that Bolivia is the second country in ALT to consume

	chickens after Brasil (145 kg/pers/year) and above Venezuela (41/Khs/pers/year), Argentina (40 Kgs/year/per) and Peru (39/Kgs/per/yea) according to The Latin American Association of Aviculturists. (La Razón 04/17/2017)

while:

Average chicken consumption **Obesity cases** 2005 17,00 Kgs/persona/año 2013 25,80 Kgs/persona/año 2014 35,57 Kgs/persona/año 60.658 2015 n.d. 71.541 2016 42,59 Kgs/persona/año 75.290 Fte. OAP (MDRyT) y MSD "The annual increase in the availability of one kilo of chicken person/day also implies -among other products- that 2,090 new cases of obesity and overweight are reported per year, between 2014 and 2016". (Adolfo Zárate / UE-MSD)	"… .The consumption with high content fats, sugar, salt and also fried and gaseo mainly, are the causes for the increase c the weight and the obesity…. A chicken prey represents 300 c; a 350 c hamburg a serving of fries 300 c. and a soda 150 c Adolfo Zárate National Head of the Unit Epidemiology of the Ministry of Health and Sports. (La Razón, 09/18/2017)

iii. Other aspects

The overweight and obesity that is characterizing the country, ¿is a reflection or result only of the large amount of junk food available in the markets / stores (stalls selling food); of the great quantity and variety of imported foods uncontrollably; of the expansion of the supermarkets in all the neighborhoods of the cities and of the low prices of the insane products, or in addition there are other factors that are not perceived?

Certainly there are other additional factors that affect the subject and that should be analyzed carefully, such as the *accelerated process of migration and urbanization* that the country is living, and that forces the inhabitants to leave early from home (to work or looking for work) and because of the distance and remoteness , they return to their homes only at night, which forces them to eat any food that is on the street, usually chickens and fried. When we return to the house at night, weary, there is no time to prepare a typical meal so we only heat up some precooked food.

If that adds to the *commercial advertising* by the various media regarding the offers of

supermarkets[115] and the prestige that goes to these centers ("food courtyards") to buy; and plus government incentives to consume more chickens and fried foods, and families go out to consume more in the streets and supermarkets as a sign of well-being and progress; in Bolivia we have a wide spectrum of reasons for consuming more insane food.

Finally, there is one last aspect that influences the excess of meals and that one should not stop inquiring and mentioning: ¿Does the overweight and obesity of older people, will not also be the result of greater anxiety that is taking over the population of middle-income (and low)[116] who wants to have what the high-income population has, and they want to do what high-income families do, and how they can´t do it, take refuge in that anxiety to consume?

It is very true that in recent years, in the country there is a decrease in poverty and the increase in the population that entered the middle class due to the series of annual increases in salaries, in the social benefits, among others factors. Therefore, there is a greater possibility of increasing the consumption of goods, including food. However, there is a scarcely analyzed aspect and it is related to the growing inequality that has been created (and is intensify) between a social sector that already had very high incomes and that continues to increase due to the current economic policies (mining sector, financial sector, agribusiness and those linked to transnational corporations, among others) and the middle and lower class sector.

According to specialists, the greatest inequality has a psychological or mental cost. As there is greater inequality, there is greater social competence and also greater divisions; therefore, there is greater social anxiety, there is greater stress, there is a greater incidence in mental illnesses (as there is greater dissatisfaction and greater resentments). This in turn can generate more drug use ... or various addictive behaviors (more purchases in supermarkets ...? ... more food consumption offered by the globalized market ...? ... more consumption of foods that give a sense of well-being ? ... more sugary and soda drinks ...?).

[115] For example, the persuasive competition between the Ketal and Hypermaxi supermarkets on national TV is even ridiculous, each of them more and more sophisticated in their food sales propaganda.

[116] The same questioning for high-income families who want to imitate the lifestyles (and consumption) of families in developed countries, and not being able to do so fully, begin to consume what that market poses (managed by the transnationals especially).

VI. BRIEF CONCLUSIONS

• Overweight and obesity are mainly due to the fact that every time in Bolivia, less (relatively) basic products are produced; that crop diversity is being lost; due to the emphasis producing only export merchandise (commodities); that there is no state support to produce traditional "healthy" foods; and that the temporality and alternation of crops is being lost, all of which influences the disconnection with traditional nutrient-rich eating habits.

• To this must be added that there is a strong influence to consume "universal diets" or ultra-processed foods, that means that Bolivia is already inserted in a process of homogenization and universalization of consumption patterns (alien to traditional habits) and that the control of these patterns is in the hands of erroneous public and market policies, which discourage the diversification / production of high nutritional value native foods and the valuation of our genetic resources.

• Add to that the growth of the middle class that has more money and tries to imitate models of food consumption from other countries, models that do not correspond to our eating habits.

• Contributes to the above, the strong deregulation of the market. In Bolivia, all kinds of food come in: whether processed or for direct consumption, legally (imports) or, above all, illegal (contraband), even without sanitary control.

• The national government does very little to stop the above-mentioned. No stop the imports or at least not taxed to those junk products, sugary, sweetened, gaseous, to discourage domestic consumption.

• There are also no regulations to the publicity that the merchants of these products have disengaged, nor to the supermarkets and stores that sell these products.

• It does not offer alternatives to that middle class to invest the financial resources it now has in adequate food of national origin.

• Education and training in food-nutrition in schools is totally insufficient. The consumption of healthy foods is not promoted.

• The support provided by government policies to the basic food producing sector is totally insufficient. There is no support (with credits, training, technical assistance, adequate seeds, subsidies ...) to family farming that produces "healthy" foods (vegetables, fruits, pulses). The only significant support is agricultural subsidies to wheat, which are actually subsidies to marketing and not to production, so we continue with productive yields so low and depending on imports.

• The government is more concerned with export products, transgenic products and now with ethanol - produced by the agro-businessmen from the east in their mono production systems - and not with the production of staple foods.

• These public policies and business corporations especially from the East (CAO, CAINCO, ANAPO ...) are promoting the agro business by producing merchandise products (flexible commodities -flex crops) that can be used simultaneously for different uses: fuels, livestock

feed and food humans. This is the new pattern of the renewed modern universal agrarian regime focused on the accumulation of capital and not on the adequate satisfaction of the food needs of the population.

• Change this situation requires very radical proactive public policies that have to do with the re-distribution of land, changes in productive agricultural systems, recovery and strengthening of land suitable for agriculture, adequate soil management among others, and support decided to the domestic production of basic foods, produced by the family economy. And finally, promote the consumption of healthy national foods.

BIBLIOGRAPHY.

Alcaldía Municipal de La Paz. Unidad de Nutrición Escolar. Diversos informes

FAO 2016. "Mapa del hambre 2015".

Fundación TIERRA 2015 "Comer de nuestra tierra?".

Fundación TIERRA 2018 "Sobrepeso y obesidad en la ciudad de El Alto".

Instituto Nacional de Estadística (INE) Diversos informes

Informe de la Gestión 2013 del presidente Evo Morales al Pueblo Boliviano. Publicado por periódico La Razón 22/01/2014.

Ministerio de Salud y Deportes. ENDSA 2008 "Encuesta Nacional de Demografía y Salud".

Ministerio de Salud y Deportes. EDSA 2016 "Encuesta de Demografía y Salud" Bolivia. Indicadores priorizados. Ministerio de Salud. La Paz

Ministerio de Salud y Deportes. Sistema Nacional de Información en salud-Vigilancia epidemiológica. Diversos informes y entrevistas. La Paz

MDRyT -Observatorio Agro Productivo (OAP). Diversos informes y estadísticas de su Base de datos. La Paz

OMS/OPS/FAO 2017. "2016. América Latina y el Caribe. Panorama de la seguridad alimentaria y nutricional Sistemas alimentarios sostenibles para poner fin al hambre y la malnutrición". FAO, Santiago de Chile (2017)

Prudencio Julio 2017 "El sistema agroalimentario en Bolivia y su impacto en la alimentación y nutrición. Análisis de situación 2005-2015" La Paz, 2017

Prudencio Julio 2015 "Un nuevo modelo de desarrollo agroalimentario basado en las exportaciones agrícolas. (¿Renunciar a la seguridad y soberanía alimentaria por comercializar mas?....o la subordinación del sistema alimentario boliviano a las exportaciones). La Paz

Universidad católica Boliviana (UCB) 2017 "Revisión estratégica de la Seguridad Alimentaria en Bolivia". La Paz

Unidad de Análisis de Políticas Económicas (UDAPE)- Encuesta de Evaluación de Salud y Nutrición 2012 (ESNUT) – Informe de resultados 2012 La Paz

BOLIVIA

The distribution of land is not enough

(A purpose of the study:
Second Agrarian Reform. A story that bothers)

Julio Prudencio Böhrt
(La Paz, February 2016)

Introduction

A few days ago the TIERRA Foundation has presented a book entitled "Second Agrarian Reform. A story that bothers", study examining the scope of the 1715 Law (INRA Law) and the results of the implementation of this law among the periods (1996-2006, 2007-2009, and 2010-2014) of reorganization and certification of all agricultural properties in Bolivia.

Among the various findings, the study shows that the rhythm of consolidation in recent years was greater because it reached 16.5 million hectares titled (representing an extraordinary improvement over the first and second period of the process) both at communal properties (in high and low land), smallholdings, the Original Community Lands (Tierras Comunitarias de Origen-TCO) and medium and large properties.

Stands out that land titled to medium and large properties in the east of the country added 2.3 million (13.9% of the total entitled between 2010-2014) including 56 certified farms each with an area of over 5,000 hectares, in a rising process in the case of the most productive agricultural land in the country and extensive livestock farming, expanding the commercial and agribusiness model towards indigenous communities and traditional territories.

They also highlight the agility[117] in the process of consolidation of small properties of peasants (of spontaneous and directed colonization of the 70s) and new settlements in the transition zones, as well as the consolidation of smallholdings west of the commercial area of Santa Cruz (mostly peasants from the departments of Potosi and Chuquisaca) bordering with TCO of the lowlands and also agribusiness. All around the agro-export model of soy production.

Stands out also that the consolidation process is headed in its final stage. Just be missing 14.5 million hectares to clean up, and that the best land - in terms of agricultural, livestock farming and forestry resources - are being consolidated to agricultural enterprises located in the central part of Santa Cruz and Beni.

Among the several final conclusions derived the study, excels inequitable land tenure and that has not been emphasized in end of latifundium that exist in the country.

On the other hand, at the book presentation, executives FTIERRA in addition to showing the results of the investigation, they complement the information emphasizing that in recent years, there is a large-scale foreignization of commercial agriculture in the east through the arrival of multinational companies that buy and rent land, and also have a control on the entire production chain of agribusiness in Santa Cruz, especially in the collection, production, processing, transport and export of primary culture dominant in the area , soy[118].

---

[117] In contrast to the absence of titularization in the traditional areas of small property such as in the regions of the Lake Titicaca and the valleys.

[118] "What is happening in the last seven years, is the arrival of transnational agribusiness companies: ADM, Bunger, Cargill, who have started buying small industries, agribusiness companies such as ODS in Bolivia, which now belong to these capital. They control 90 percent of the soy" G.Colque, Erbol, 27/01/2016

The problem is not only the distribution of land, is "the production model."

Despite all the transformations and change process that the country is going through in recent years on the subject of land, there are certain aspects that are evident and to be taken into account.

First, that the Bolivian state has been and is incapable of dismantle the prevailing unequal agrarian structure in the country.

Unlike other countries, Bolivia has been titled and distributed land to indigenous and native farmers in different regions; and they are actively involved in the formulation and implementation of agricultural development model currently implemented in the country.

This induces us to consider that in Bolivia, unlike other countries, the distribution / ownership of land is not the fundamental problem, although the land is in foreign hands (purchased directly or through third parties, or leased land / rented by foreigners).

In the east, where the best productive land (agricultural, livestock farming and forestry) are located, it has been set up agro extractive production system with operating logic or paradigm agroexport development mainly focused on soy, and consists of many different actors.

It also drives us to suggest that in the analysis is necessary to go beyond the distribution of land and agrarian reform[119], and rethink the tendency is prevailing in the country in terms of the production system. That is, the unequal distribution of land is insufficient to understand the mechanisms of power that capital deployed for controlling rents.

So, if it is essential that indigenous peasants and indigenous peoples have effective access to land, to the control and benefits, of this resource, we must analyze and rethink the use of these actors are given this land.

Now, soy is being produced in various regions of Santa Cruz, not only for agribusiness but also by small and medium farmers and also by recent peasant farmers[120] who received land distributed by the government.

These actors known for a few years as "intercultural"[121], are more than 12,000 farmers who cultivate about 250,000 hectares of transgenic soybeans intensively using chemicals that pollute the environment and land, establishing monoculture, leaving produce staple foods,

---

[119] This does not mean that it is important to analyze the type of investment, the amount of monopolized land, strategies for land dispossession, displacement of indigenous peoples, poverty, peasant proletarianization, migration to urban centers and other topics.

[120] Actually in these regions there are three types of peasant farmers from the western part of the country who have changed their traditional crops for cultivating soybeans: farmers have little parcels but above all offer their labor for the crops of soybeans and other export products; smallholders who have property 50 hectares (extensions endowed by colonization programs of the past) and medium / large peasant proprietors who are between 180 and 200 hectares / average each.

[121] Aymaras, Quechuas, Guaranies and other indigenous peoples who migrated from western of country to subtropical areas in search of better living conditions, which in the past were called colonists.

losing productive diversity, contaminating groundwater and increasing consumption of agrochemicals and genetically modified seeds[122].

These producers make the country more dependent on imports of these inputs[123] and influence the deforestation of vast areas of land.

According to the Ministry of Environment and Water in 2013 they were deforested nearly 162,000 hectares and unauthorized deforestation totaled 88,486 hectares, of which 19% came from peasant and indigenous communities and the balance of private property (Los Tiempos 06/21/2015)[124].

More current data indicate that in the month of September 2015, the average level of deforestation in eastern Bolivia was 324.40 hectares / day, especially in the municipality of Pailón (www.Guyra.org, py) that characterized by one of the most representative in soybean production in Santa Cruz.

With the current government impetus to the expansion of the agricultural frontier, the authorization of clearing area 5-20 hectares and "forgiveness" from fines for illegal logging, deforestation will further increase.

Therefore, we can say that these intercultural actors are starting to live it in a different production logic, the logic of the monoculture, which in turn implies:

> i. Login to the mercantilist game and do great disservice to investment / transnational corporations by buying them GM seeds, machinery, chemicals and other inputs, and inserted into the mercantilist logic agro exports.
>
> On the other hand, it is favorable to the transnational corporation and even is in need of this peasantry not only to extend gains (from the sale of GM, agrochemicals, etc); but also to have cheap labor and to appropriate the "differential rent" (in the language of economists) in soybean prices.
>
> ii. Losing their cultural references, losing their traditions, losing their way of "doing"; to produce. Lose their productive logic which is no longer reserved part of their harvest for the next planting seeds (they have to buy GM seed), they can no longer supplement their crops with other crops as they did in their places of origin or their ancestors, and they can´t do integrated pest management they have to fumigate with increasingly powerful agrochemical use.
>
> They are losing their productive rationality (which consists of the diversity and complementarity among others) their ancestral knowledge developed and passed down for generations, and cosmic socio nature (established by his human environment and not human, or the interrelationship of nature and culture).

---

[122] In this regard, see the different studies related to soy. Kopp A. (2015); Pérez M. (2007); Zommers A. ; Medeiros G. (2009); Prudencio J (2014) and others.

[123] On imports of agrochemicals and their increasing dependence of the country, see Prudencio J. (2015)

[124] What we on the other hand also means the emission of large amounts of carbon dioxide or emissions of greenhouse gases that contribute to climate change.

In short, the prevailing agro extractive in this region involves not only trans-nationalization of agriculture but especially denaturation native indigenous peasant agriculture.

Thus, to the east agribusiness transnational company and export soy, endowments and land titling for small and medium farmers is no longer a technical and political obstacles to their interests, rather these "intercultural" are added the transnationalization of agriculture by facilitating the expansion of the export model of genetically modified soybeans.

Regression and contradiction

The actions of "intercultural" contrasts sharply with the approaches and practices of other producer organizations indigenous peasants from Bolivia seeking to stop once the extractive agro-based system monocultures in agrochemicals and GMOs. They pose the agroforestry system that implements the peasant household economy through soil remediation / land, harvesting and proper water management, rescue and conservation of seeds, integrated pest and plant protection, crops covered management, productive diversity and crop rotation, technical training, the creation of food reserves and conservation techniques among others, as suggested by various instances and moments[125].

The approaches of producer organizations as CIOEC are a real alternative to Bolivian agriculture as shown by the results of various projects implemented under this productive logic, in regions such as Tarija, Potosi and even in Santa Cruz, with positive results in terms conservation of biodiversity, production increases, agricultural diversification, agroforestry and livestock complementarity, soil remediation, among others[126].

While this approach or productive logic of indigenous peasant sector poses some years ago in the global context, only now, with the aggravation of climate change, international institutions are beginning to value and recognize these practices.

Thus, the FAO adds to previous recommendations through the recent presentation of a research entitled "Save and Grow"[127] which holds to perform agricultural crops associated with shady trees, leaving crop residues as cover, crop rotation to improve soil, intercropping, efficient water management and integrated pest management with natural methods.

But be argued that "intercultural" take another productive system as demanded other original indigenous peasant organizations in the country then it becomes a bit unrealistic,

---

[125] In this regard see the "Declaration of CIOEC and farmers' organizations and indigenous peoples to the World People's Conference on Climate Change in Cochabamba and COP 21 in Paris." (Coordinadora de Integración de Organizaciones Económicas Campesinas Indígenas y Originarias de Bolivia), 15/X/2015.

[126] In the Mancomunidad of Municipalities Heroes of Independence/Tarija (www.iiccatarija.org); in northern Potosí (www.isalp.org.bo); in Chiquitos with the producers association Minga, among others.

[127] Including its Director General (G. da Silva) he did not hesitate to declare that "... to eradicate poverty and to address climate change a change of paradigm is required towards a more sustainable and inclusive agriculture ... .It must resort to natural processes of ecosystems ... . improve the basis of natural resources from agriculture and reducing dependence on chemical inputs . ... it is time that the ideas that have worked for farmers to apply more ambitious national programs "(www.fao.org).

not only because the productive rationalities are totally contradictory, but because through many economic resources[128].

A agribusiness (domestic and foreign) no serve anything to have next to their agricultural export production, agroforestry farmers producing variety of healthy foods and to diversify their production. Agribusiness partners needs entrepreneurs, farmers businessmen that demand their seeds and inputs and simultaneously supplying them with the raw material (soybean) at discounted prices.

The new agro extractive speech.

The process of partnering / incorporated into the trans-nationalization of agriculture that are implementing the "intercultural" in the east of the country is not only subjugation to the commercial logic but is also serving as a pretext for the development of a new discourse by the agro business from the east (linked to transnational corporations) that seeks to justify the trans-nationalization of agriculture.

Thus, often hear representatives of this sector (Cámara Agropecuaria del Oriente/CAO; Instituto Boliviano de Comercio Exterior/IBCE, Cámara de Exportadores/CAMEX) argue that the model being implemented in the country is the ideal and they have not touched the rights of ownership of land and natural resources of the peasants (intercultural); the national food security is promoted; that it creates jobs and the income are redistributed; that laws are not violated; that there is the introduction of modern technology necessary for the peasantry; that environmental impacts are limited and acceptable by the presence of peasant communities who live in the productive environment; being constructed adequate production infrastructure; productivity increases; that there are local development; there is a reduction of poverty in the region; there is a complementarity and coexistence / peaceful and exemplary coexistence of agro business (domestic and foreign) and small / medium and large rural producers; there is a training opportunity for peasants become business entrepreneurs; which is the modernization of the countryside; it is a process of inclusion in accordance with the position of the government; that binds vertically and horizontally chain soybeans; that there are more competitive and several other arguments more than at the bottom shows a paternalistic and dominating discourse.

¿new roles and functions in agriculture?

Of discourse analysis and previous approaches protrudes this actor, the investor or capitalist agro business - coinciding with the ideas of the "Law of responsible investment" of

---

[128] "The issue of GM was discussed inside the Unity Pact that integrate organizations of native and indigenous peasant movement as CSUTCB, Conamaq, Cidob, Women Bartolinas well as intercultural ... The debate was profound, some brothers said zero GM and conventional products…although some brothers eastern intercultural want GM ... The confrontation was who were thinking of the money and who believed in life, that was the debate .... Some brothers said radically zero GM and conventional products ... (that) there is any difference with me ..... (I have challenged) to agricultural producers organizations of the Unity Pact to ensure organic food to all people, but not they felt "able to" ensure domestic demand. ... What we encourages us is that GM in the world have the best price, that will allow us to encourage organic production. " Evo Morales, President of the Plurinational State. Conversation with journalists from El Alto, granted to Radio San Gabriel (played by ANF 31.01.2016)

the World Bank[129] and the "New Investment Promotion Act of Bolivia" (Law 516 of 04/04/2014)[130] - it going to develop the role now than in the past, in the decade of the 70s, played the World Bank in Bolivia[131], investing capital and accompanying intercultural now to join as "their new partners ". That way, the reproduction of capital and control practices and traditional knowledge of farmers more easily expand, without the need to monopolize land.

By the side of the "intercultural" peasant, they no longer play the old roles assigned by classical economics (produce cheap food, produce raw materials for the manufacturing industry, create jobs, to free labor for industry and cities) nor the new functions that are already playing indigenous peasants and indigenous peoples in several regions of the Andes (www.abaayacucho.org; www.idmaperu.org; www.cesa.org.ec) as to nourish the population (with the necessary amount of healthy foods and quality, ensuring real security to food sovereignty), enabling the land to regenerate without polluting the environment (in balance with the ecosystems and biodiversity among others) and ensure the welfare of their own actors (in terms of decent jobs and adequate income) in terms of "Good Living".

In the east of country, now is the time where two important development actors are playing new roles in agriculture trying to create an instance of legitimizing this type of "social and productive" system, in which the government is sponsoring to some through credits, granting of public lands, and support for negotiations to obtain higher sales prices of the raw material by the exporters. To the other, through finding new export markets with better prices (now that the international price has decreased) by expanding export volumes; and the non-collection of taxes on soybean exports, among others.

Thus, from the state, it is seeking to integrate these two actors, that is, integrate knowledge and peasants practices to the logic of agribusiness plantations, so it would not be necessary to physically move them. They argue that industrialization will happen to the expansion of exports so it we must form a strong national capital that will stimulate economic growth.

In this manner, from the state, it is seeking to integrate these two actors, that is, integrate knowledge and peasants practices to the logic of agribusiness plantations, so it would not be necessary to physically move them. They argue that industrialization will continue to to expansion of exports so it we must form a strong national capital that will stimulate economic growth.

---

[129] Which raises that large investments build infrastructure, transfer technology, create jobs, increase productivity and others through 7 principles: 1) the rights to land and natural resources are recognized and respected, 2) investments do not put in endanger food security, 3) processes are transparent and monitored, 4) all affected people are consulted, 5) investments ensure respect the laws and are economically viable, 6) investments generate social distributional effects and 7) environmental impacts must be mitigated. in "access to land, essential for the poor April 8, 2013," http://www.bancomundial.org/

[130] Which raises protect foreign investment, encourage joint investment (state-private) to create the required infrastructure for diversification; the absorption of a technology capable of promoting the diversification of the productive structure; the strengthening and modernization of the Bolivian state among others.

[131] Investing (20 million dollars) through the Integrated Rural Development Programs/IRDP to implement the "colonization programs" in the east of country. (With respect to IRDP and the settlement programs in the colonies of San Julián and Yapacaní, see CERES studies -1980; and especially Blanes J; Calderon F; Dandler Prudencio J. and J. 1980).

Conclusion

Then, we are in the formation of a new type of "agricultural enclave" of the same features of "mining enclave" [132]that characterized Bolivia in the past years, emphasizing its focus on global markets, intensive use of modern technology, use of wage workers , capital mobility and a relative dynamism in the towns / regions where it is implemented. But with the novelty - that is unique in Latin America – of a "new global convergence of actors" - farmers and agribusiness producers of GM soya[133]- with new forms of productive regulation, governed by the changing international commodity prices.

[132] See In this regard Cardoso FH y Faletto E. 1968.

[133] ¿How long you can last this new convergence of actors between "intercultural" and national agribusiness eastern (who are the representatives of foreign investment and transnational corporations (TNCs) from soy)?. This question arises because voices of intercultural already heard in the sense that ... "we never got mentioned in the statistics us peasant producers ... we produce more soybeans than many agribusiness ... ... agrochemicals they give us are often adulterated and sold to us at a price very high ... .they pay us soybeans below the international price… we pay so late ... .We have to export directly". As intercultural is a social sector which has support from the current government, not unlikely that it mediates with TNCs to make intercultural also access directly to transnational capital exporting soybeans. What would this mean for the country and for the whole of peasant farmers from the east and west of the country? Certainly the creation of a new peasant petty bourgeoisie settled in the east of the country and greater depth of differentiation inside the original indigenous peasant sector of Bolivia.

Bibliography

. Kopp Adalberto. (2015) “Las colonias menonitas en Bolivia”

. Pérez M. (2007) “No todo grano que brilla es oro. Un análisis de la soya en Bolivia”

. Zommers A. “EL mercado rural de tierras en Santa Cruz”

. Medeiros Gustavo (2009) “El sector agropecuario” (UDAPE)

. Prudencio Julio (2015) “Bolivia. Un nuevo modelo de desarrollo agroalimentario basado en las exortaciones agrícolas (¿Renunciar a la seguridad y soberanía alimentaria por comercializar mas? ...o la subordinación del sistema alimentario boliviano a las exportaciones)”

. Cámara Agropecuaria del Oriente-CAO(2013) “Números de nuestra tierra”

. Blanes José; Calderón Fernando; Dandler Jorge y Prudencio Julio (1980). “Pauperización, proletarización y diferenciación campesina. Reflexión teórica en torno al problema de las migraciones a colonización en Bolivia”, La Paz (Mimeo)

. Centro de Estudios de la Realidad Económica y Social (CERES) (1980). “La Problemática agraria en Bolivia y expansión del capitalismo”, La Paz

. Cardoso Fernando H. y Faletto Enzo (1968). “Dependencia y desarrollo en América Latina. Ensayo de interpretación sociológica.

. FAO (2011) “Ahorrar para crecer” (officially presented at 01/2016), Roma/Italia

Indigenous peasant agriculture of the Andes in the face of climate change

Julio Prudencio Böhrt

(La Paz, Septber 2015)
Bolivia

Indigenous peasant agriculture of the Andes in the face of climate change

I. Introduction

In a few more months, the "Paris Climat 2015" conference (COP 21 Paris, where Bolivia will participate) will be held in Paris, whose main objective is to reach agreements that reduce greenhouse gas emissions and try to limit heating to 2 ºC from here to 2100.

While some States are showing signs of advancing in limiting their gas emissions (France, the EU and USA recently) and adapting to Climate Change (CC), the problem depends not only of the States but also of other actors such as private companies that have a model of intensive development in carbon emissions.

In this sector, there are very few companies (for example General Motors, Google, Ikea) that are considering reducing their emissions and their energy consumption, promoting technological innovation and considering climate risks.

For the above, one might think that there is a take of international business awareness about climate change, however in the agricultural sector, happens quite the opposite. Transnational agribusinesses (Du Pont, Monsanto among others and their national subsidiaries) have not considered that initiative or taken that example. With their model of intensive commercial agriculture (production of monocultures, transgenics, intensive use of agrochemicals, proliferation of supermarket chains, mass transport of food, food waste and others), they are degrading and salinizing the land. They have excessively extracted groundwater, increase pesticide resistance and erode biodiversity, have increased deforestation and logically exhaust natural resources and increase the Emission of Greenhouse Gases (EGG).

According to FAO data, this type of commercial agriculture, which in Latin America is characterized by its high production / export of commodities (soy) and livestock (from Brazil, Argentina, Paraguay) has doubled its greenhouse gas emissions in the last decades. It currently constitutes 25% internationally, well above Africa (15%), Europe (12%) and Oceania (4%). "The net conversion of forests to other uses was the main source of EGG in the region: between 2001 and 2010 it generated 1.9 billion tonnes of CO2 on average" (www.fao.org/news /story/es/item/41351/ icode). This report also highlights the excessive use of agrochemicals "….The application of synthetic fertilizers generated 13% of total EGG (725 million MT) in 2011".

This information is corroborated by other international reports that indicate that the global agri-food system contributes between 44% and 57% of EGG emissions; not only for agricultural production (between 11% and 15%); but also due to changes in land use and increasing deforestation of large wooded areas (between 15-18%); for the transport of food / processing / refrigeration that uses excessive energy (between 15 and 20%) and for the alarming food waste (between 3 and 4%) (GRAIN 2014).

Despite these data, the type of commercial agriculture is presented as the only option to increase food production whose world demand is increasing, without questioning the effects generated by this type of agriculture for the environment.

II. Another option is possible.

Given this problem, in several countries of the world they propose some alternatives. FAO, for example, proposes to continue producing with agrochemicals and also with the system they call SIAP (Sustainable Intensification of Agricultural Production)[134].

Very little attention is given to other options, such as that practiced by peasants and indigenous peoples of the Andean region (Peru, Bolivia and Ecuador) related to sustainable development, biodiversity and climate change.

This agricultural development option is based on several aspects[135] that are necessary and illustrative to mention due to its "integral" approach, its "environmental management" [136] and its adaptation and mitigation to climate change.

1. Soil / land recovery.

The intensive exploitation of crops, the erosion, the overuse of agrochemicals and deforestation among others, has largely damaged agricultural lands and ecosystems.

In Bolivia, for example, a study on chromatography carried out by the ISALP[137] reveals that all of the agricultural land of the North and Center of Potosí is damaged / contaminated / depleted by the excessive use of agrochemicals, which is why the productive yields of any Product are very low.

For this reason, the first task that peasant farmers in several regions[138] have set themselves is the recovery of their lands with natural fertilizers. To do this, they have even created fertilizer processing plants.

It should also be mentioned that there are several peasant initiatives for the habilitation / recovery of land for crops through the enclosure of areas (during years) and its natural recovery and growth of the forest with native and fruit species (for example, the enclosure of the town of Santa Bárbara, Municipality of San Lorenzo /Tarija (www.iiccatarija.org) and pasturage guard / maintenance for livestock (pasturage rotation in Itatiqui and Cuevo for example, in the Chaco de Santa Cruz and silvopastoral implantation in the Chaco of the Chuquisaca/Luis Calvo province).

---

134 Predominantly ecosystem approach

135 Systematized and summarized from the diverse experiences of monitoring and evaluation of rural development projects carried out by the author in different high and subtropical areas of the Andean region (Peru, Bolivia, Ecuador), in recent years.

136 Referred to all actions aimed at the administration, use and management of natural resources and the conservation, maintenance, improvement and monitoring of the environment

137 SEMTA/ Bolivia. La Paz, 2015. (Study of soils and practices (in their areas of coverage), in the framework of the "Training Workshop on Sustainable Agriculture and Food Security" promoted by Multiple Services of Appropriate Technologies (SEMTA / Bolivia). La Paz, 2015.

138 Regions of the North and Center of Potosí; of the Commonwealth of Heroes of Independence Municipalities / MMHI in Tarija; in Cajamarca/Peru; in Píllaro / Ecuador among others.

In the North of Potosí, the villagers build the so-called slow-formation patachas or terraces associated with live contour and protection fences (valuing the technology of their grandparents), recovering and enabling new lands for growing vegetables, shrubs and medicinal species that favor the health and the environment.

It is part of this soil recovery, the reforestation undertaken in several regions, for which they are reproducing fruit seedlings and various species, with nurseries garden specialized in seed / seedling production (piloneras).

2. Harvest and water management.

For the search of water sources, the rural inhabitants travel great distances on foot in the heights of the mountain ranges, identifying water sources, springs, water eyes, water reservoirs and natural lagoons, recording and systematizing the distances, the flows, the dimensions, latitudes and others (In this regard, see the work carried out in the districts of Chuschi, Paras, the Tapaccocho lagoon and others in Ayacucho / Peru. www.ABA.com).

Water harvesting (q´ocha) through the construction of shortcuts[139], ponds, and small and medium-sized family / group reservoir in the emerging microbasins; and the transfer of water from one region to another, through underground conduits, open channels, pipes, constitute other strategies employed by the inhabitants.

Water capture, especially based on traditional knowledge and practices of each region, proves to be very useful. In the region of Ayacucho / Peru, for example, they are recovering and reproducing plants and / or forest species such as the Putaja plant (Rumex peruvians), which is characterized by attracting water to their surroundings (used to increase flow rates in the sources of water), or the recovery and promotion of the use of Aliso (Alnus acuminata) in the municipality of Huánuco / Peru, which increases water flow several times.

In the Bolivian Chiquitanía (Community San Lucas and Carmencita in the Velasco province) techniques for water retention (capture) are implemented through infiltration ditches with organic fertilizer[140], practice applied to the cultivation of coffee and others (see www.minga), with substantial benefits in the productive increase (of 275% with respect to the Bolivian average)[141], which improves the quality of the product achieving a greater homogeneity (improvement of the quality of the product because the production is more homogeneous at the time of flowering) and, above all , conservation of moisture and water in times of drought.

---

[139] With vegetation covered around the cut-offs (small reservoirs to grab water) for a more adequate conservation of the soils due to the humidity of the water, generating a decrease in erosion, winds and the increase of birds and biodiversity

[140] Channels 40 cm deep by 30 cm wide, up to 100m long, where they place bran and / or guano, storing water (and humidity) up to 3 times their volume.

[141] Community Carmencita/Chiquitanía. Proyect Geñoi (www.programaecoclima.org)

The proper management of the reservoir (encerramiento)[142], not only by closing their areas and declaring ecological and conservation reserves, but above all by reforesting them with traditional species, conserving their biodiversity, investing in their conservation and maintenance.
An excellent example of this management is the experience of the water reserve in the Los Llanganates National Park, in the region of Píllaro / Ecuador, and the creation of a Patrimonial Fund for its maintenance, with projections for the next 50 years. (See www.cesa.org.ec)

Regarding the use of irrigation water by farmers themselves, it is done through pressurized irrigation systems, with control and supervision of water distribution among users, with a cadastre, frequency of irrigation, determination of type and number of sprinklers, flows, type of pipes, maintenance of works and others (Píllaro / Ecuador, www.cesa.org.ec).

They also capture rainwater (runoff) through the construction of embankments that filter and store water that is then redistributed through canals (thus preventing flooding and river overflows, having water, generating moisture and fertility of the soil www.iiccatarija.org). In the Paraguayan Chaco they build elevated "Australian" tanks of land (land extracted from perforations) to retain the accumulated water.

The capture of water and its efficient use have ecological and environmental effects such as the appearance of slopes or puquiales, increased flows, generation of more humid microclimates in the environment of the q'ochas, favorable for wildlife, appearance of plant species appetizing for livestock, among others[143].

3. Rescue and conservation of seeds.

In many rural areas there is a massive loss of agrobiodiversity caused by production based on agrochemicals, agroindustrial monocultures and unsustainable natural resource management that has resulted in the loss of Creole seeds.

FAO studies (FAO 2011) indicate that "... during the last century about 75% of plant genetic resources disappeared, while one third of the diversity that exists today could disappear by 2050". Therefore, the harvest, conservation and use of plant genetic resources is essential.

The peasant/farmers not only know about these losses, but also know that seeds are fundamental to food security and constitute a fundamental component of their culture, their productive systems and the food sovereignty of their people. That is why they emphasize the need to provide a genetically diverse set of improved crop varieties. Therefore, they are

[142] Practice that has also been implemented in the Chaco / Chuquisaca / Bolivia region, through the Geñoi program funded by the European Union and implemented by Action Against Hunger (ACH) / CARE International / Assistance in Action (AeA) and FAO / Bolivia

[143] It also generates the enable of new farmland and exploitation of the entire extension of the plots, obtaining two or more agricultural crops per year, stabilizing production, increasing agricultural production and productive diversification (vegetables and grains, including pastures and forage for livestock and production of milk and derivatives).

in the process of recovering the group or communal fairs of Creole seeds where rescue and conservation are encouraged on the farm, and the exchange of the great diversity of seeds of traditional products among themselves[144].

These fairs are usually organized by groups of women producers who not only pursue the recovery of native and Creole seeds, but share their ancestral knowledge about production, management and conservation practices; and also create conscience about the environment by showing their different local experiences with lessons in the management of agroecological systems to face the consequences of CC in different ecological floors (cold, medium and warm).

In this regard, several food security and sovereignty distinguish in different regions: for example in the region of the municipality of Caraparí/Chaco Boliviano, organized by the Association of Women Producers of Sustainable Agro - AIMPAS (www.agrecolandes.asocio) and also the great ecological fairs in the municipality of Huánuco/Peru (www.idmaperu.org) the Huancaró fair in Cusco/Peru, the fair in the municipality of Alcalá/Chuquisaca (www.pasosbolivia.org) which are held every month/week, with ample levels of participation and dissemination, regional and national.

These fairs are fundamental for the rescue and exchange of traditional seeds (germplasm) but also for the environment[145] since they avoid the use of fuels in the transport of food, thus reducing the emission of greenhouse gases.

Similarly, the free movement of seeds is a way to prevent their privatization, the expansion of corporate agriculture and GM crops, which menace the biodiversity.

4. Integrated pest management and phytosanitary protection.

They complement soil recovery, water harvesting and seed rescue, integrated pest management (based on a healthy agroecological system) and phytosanitary protection; all

[144] Distributed at the precise time for planting and adapted to their environment (they have their communal records and their own local banks) which in turn generates the conservation of their plant genetic resources.
[145] Also to prevent fluctuations in market prices and reductions due to speculation in the supply of food.

this through the elaboration and use of biopesticides, the foliar fertilizer, mineral broths, biocides, bocashi[146] (usually with local materials), and compost (fermentation of various elements plus ashes, cup, herbs and others mixed with water). (www.iiccatarija.org).

On the other hand, it should also be added that other conservation practices are added - according to the different regions and with different intensity - such as curves level, windbreak curtains, terraces, living barriers, plant cover, infiltration trench and other techniques such as crop rotation and the use of stubble and others.

It should also be mentioned that in several communities a flow of vegetable cultivation called "transition" (or clean production) towards the previous system is being consolidated, reducing the use of pesticides by adopting conservationist cultural practices to move from a highly cultivated crop intensive in agrochemicals to one more friendly with nature, such as the cultivation of vegetables and fruits in the Río Chico valley in Sucre / Bolivia (www.pasosbolivia.org).

5. The Productive diversity and training.

When practicing the recovery and multiplication of seeds of native varieties, they emphasize productive diversity with the rotation of crops such as legumes, cereals, tubers, various vegetables, fruit seedlings, also highlighting the search and choice of varieties more resistant to drought and sickness[147].

The rotation of crops with the complementation of training activities is also very important both in the plain (Chiquitanía/Bolivia) and in the heights (Chuschi/Tuco in Ayacucho / Peru) and valleys (Churubamba/Tuco in Huánuco / Peru): Family / group / school gardens are combined with training and agro-ecological practices (rotation, association and diversification) with crops short term (vegetables, vegetables), medium term (corn, cassava, beans, potatoes) and long term (coffee, fruit trees) (www.ABA.com; www.minga.com; www.idmaperú.com). Mixed crops with cover crops improve soil biodiversity and accumulate more organic matter in the soil[148], which affects the products to achieve higher productive yields.

There is also the breeding and management of livestock in plots (beef, guinea pigs (cuy), sheep and goats), combined with agricultural production for the recovery of the farm (chacra) based on complementarity.

6. The creation of food reserves and conservation techniques

An essential (and complementary) aspect that is carried out in various regions is that of traditional practices of storage, rescue and conservation of food, practices that were being lost in families, such as the rescue of the Hualusa (Chiquitania); corn, potatoes, goose,

---

[146] Bocashi = biofertilizer based on the fermentation of yeast, fruit vinegar, molasses, distilled panela, cane juice and others. Biocides = vegetables (root, stem, leaves, flowers, seeds) that help control pests and crop diseases. Biol = liquid fertilizer

[147] A good example of this is the "Sustainable Agriculture Programs for Adaptation to Climate Change in vulnerable regions of Bolivia and Peru"(SAM 1010) and "Adaptation to climate change of family production systems in Andean regions of Peru and Ecuador"(SAM 1011) implemented by German Agro Action (Welthungerhilfe).

[148] As also confirm the studies of the University of Wageningen/Holland biodiversity.htm http://www.wageningenur.nl/en/newsarticle/Does-mixed-cropping-with-cover-crops-improve-soil-

mashua and others in the so-called "tockosh" (storage in jutes, soaking inside flowing water) or corn in "huaylluncas" (inside and outside the house, strung and hung) in the mountains range (Ayacucho) and valleys (Huánuco, Píllaro), which preserve the products better for many months, with all their properties and quality conditions, and reduce losses due to weevils and moths (Huánuco / Peru).

	All this begins to generate a sense of revaluation and rescue of biodiversity. There is also the storage of grains at the level of trojes and huaylluncas improved for the conservation of group management seeds, a practice that is implemented in areas of Chiquitanía and Chaco / Bolivia. In the same way, they highlight the techniques of food transformation to preserve them better as is the case of vegetables in noodles, making confitures of vegetables such as anco, beet and sweet potato (www.agrecolandes.asocio) and the traditional transformation of milk into chakicachipa (cheese), meat in aycha charki, joco bread, and potato in cocopa or chuño (Ayacucho /Peru www.abaayacucho.org), which ensures food for times of scarcity. This series of techniques reduce energy expenditure in food preservation and transformation.

7. Disaster prevention systems.

A fundamental issue that accompanies the previous aspects is that related to the emphasis placed on the recovery of sageness and indigenous peasant worldview, which includes the transmission of ancestral knowledge about agriculture and the environment.

Andean peasant have knowledge through their own understanding, practices and conceptions for the use and conservation of resources and biodiversity. For example, the territory is considered as a place of life and protection, a place of upbringing that enables the constant flow of life in community, interconnected ritual and geographically by agricultural systems and their own modes of use and complementarity of agroclimatic diversity .

In that sense, various strategies for harmonizing with the climate and the environment are implemented and emphasize the rescue of traditional knowledge for risk management. In that way, they identify the bioindicators that can serve and counteract the main menaces. For example, they revalue and put into practice, the abigeo (shouts and sahumerios) for the hail away (Community of Chuschi / Ayacucho). Or they classify the songs of the birds and the appearance of others (frogs, ants, worms) through which they determine the rains, cold, drought (Santa Rosa / Chaco Bolivia Community). Thus, they culturally reaffirm the

existence of a particular way of life and the important role of indigenous knowledge in the conservation of natural resources[149].

Finally, it should be noted that all of the above is complemented by a fundamental aspect for indigenous and rural peoples, such as education, training and education on disaster prevention, climate change, early warning systems, risk management, recycling and others, not only through schoolchildren (youth ecological brigades; student brigades) but also to residents in general, making them partakers in various actions (making vulnerable maps for example).

III. Problems.

. They do not have the necessary financial resources to implement / disseminate these practices, in general. Likewise, not all residents have access to natural inputs, and doing so implies training and resources.

. Absence of support in technological research to deepen the rescued knowledge and intensify these or to expand others, and for the transfer of that technology.

. There is no support to distribute / sell the natural products free of agrochemicals obtained being that they usually fall into the hands of intermediaries who do not value organic and clean products, and mix them with others. The few rural experiences of commercialization of organic products (for example the Integral Association of Organized Producers of the Municipality of Chayanta (AIPROMCHA-Potosí) have problems of accumulation, transporting to nearby towns, of location for sale within the markets established in intermediate cities (Llallagua / Potosí), among others.

. The products obtained are not sold at a fair price or reasonable because the other type of production sells food at lower prices. Therefore, it is necessary to include in the production costs of commercial products, the costs of replenishing the contamination of water and contaminated air, of replacing the land, of replacing damaged biodiversity, among others.

. Regional projects prioritize the use of water for mining and the extraction of hydrocarbons (oil and gas) before than their use in agriculture, creating socio-environmental conflicts and not respecting rural and indigenous communities.

. The deviation of water sources carried out by some enterprise farms (of livestock/wine and other) and also dam construction projects in the Amazon, creates damage to the environment, to the forests, to the biodiversity and organic agriculture.

. The population settlements and the expansion of the agricultural frontier in protected areas and in areas of indigenous peoples; (which dismantle large areas of forests as well as forest predators) affect communal lands and traditional irrigation canals.

[149] Although with climate change even birds and other animals are disoriented so that these bio indicators are being reviewed.

IV. Brief Conclusions

. These concrete practices may seem to some governments and institutions somewhat unrealistic ("... it would be unrealistic to expect farmers to adopt sustainable practices only because they are more respectful of the environment ..." FAO 2011) however for many peasant farmers it is a matter of survival , the future of their children, and the preservation of their resources ("... we have to recover our land because it is the only thing we have ... ... if the land is not going to produce, of what are we going to live ... what are we going to eat? "Ms. Apolinaria Choque V / 2015, Belén Urmiri / Chayanta / Potosí Community. www.ISALP.org.bo).

. The approach of the described production system is suitable for food production not only because of its impact on the reduction of EGG in all phases (production, transformation, distribution, conservation, sustainability of natural resources) but also because it contributes to strengthening of resilience in the communities, allows to fight against poverty, generates healthy food for the achievement of food security and sovereignty, and also generates employment[150]; unlike the system based on the extractivism of natural resources, which only focuses on the market and the commodification of goods, which contribute to increasing EGG.

. This series of practices and actions carried out by peasants and indigenous peoples respond to an active participation and organization that fight to guarantee, as a community, to satisfy their most basic needs within their culture and worldview, also emphasizing that they are inserted in a logic non-mercantilist - which rather responds to Good Living - which contrasts with the system organized around consumerism, profit and the maximum profit.

. We hope that the "Paris Climat 2015" conference (COP 21 Paris) determines mandatory measures for countries to stop the agricultural production system of commodities, because if it continues this will increase EGG emissions, which will mean droughts, floods, hurricanes will be more frequent affecting the countryside and cities, many species that will be extinguished and also the production of staple foods.

. Emphasized in pointing out specific places and types of experiences so that they are concretely supported and appropriated for dissemination. National governments must understand that the CC is a real crisis, so radical measures must be implemented.

. In that sense, clean energy production systems should be financed and emphasize that the other "commercial" system begins its transition to the clean and healthy system, with a specific calendar of activities and precise goals to be achieved, highlighting that the dichotomies that pose (lack of resources or extractivism; zero production or agrochemicals; hunger or genetically modified / transgenic foods among others) are false.

---

150 "Conservation agriculture can reduce the necessary agricultural energy by up to 60% compared to conventional agriculture that uses machinery. Energy savings also benefit small farmers who employ labor or animal traction" (FAO 2011).

Bibliography

. FAO 2011 "Ahorrar Para crecer. Guía para los responsables de las políticas de intensificación sostenible de la producción agrícola en pequeña escala". Roma/Italy.
. GRAIN 2014. "La soberanía alimentaria. Cinco pasos para enfriar el planeta"

References

. Asociación Bartolomé Aripaylla (ABA), (Ayacucho/Perú). www.abaayacucho.org
. CARE International (La Paz-Bolivia). www.carebolivia.org
. Instituto de Investigación y Capacitación Campesina (IICCA)-Tarija/Bolivia www.iiccatarija.org
. Investigación Social y Asesoramiento Legal (ISALP)-Potosí/Bolivia www.isalp.org.bo
. Promoción de la Gestión Rural Económica y Social (Progreso), (Piura/Perú) www.progreso.org.pe
. Instituto del Desarrollo del Medio Ambiente (IDMA), (Huánuco/Perú) www.idmaperu.org
. Centro Ecuatoriano de Servicios Agrícolas (CESA), (Píllaro-Ambato/Ecuador) www.cesa.org.ec
. Minga - Asociación de productores (Chiquitos–Santa Cruz/Bolivia) www.programaecoclima.org
. Fundación AGRECOL Andes (Santa Cruz/Bolivia) Programa Ecoclima www.programaecoclima.org
. Agro Acción Alemana (Welthungerhilfe) http://www.welthungerhilfe-americadelsur.org/
. Fundación PASOS (Participación y Sostenibilidad) (Chuquisaca/Bolivia) www.pasosbolivia.org
. Acción Contra el Hambre www.accioncontraelhambre.org/es/bolivia

BOLIVIA

A new model of agri food Development sustained

In the agricultural exports

¿Renounce the security and sovereignty food for sell more?
...Or the subordination of food system to Bolivian exports

Julio Prudencio Böhrt(*)
(La Paz, august 2015)

(*) This article is a summary of the work rewritten entitled "¿Renounce the security and sovereignty food for sell more?... Or the subordination of food system to Bolivian exports. (Analysis of "Sector Plan. 2014-2018 Agricultural Development. Towards 2025 ") prepared by the author in August 2014

. Economist, bolivian. JPrudencio@megalink.com

I. INTRODUCTION

In Bolivia, since 2006 it has established a peasant indigenous government at the head of Evo Morales A. Supported in various social movements (CSUTCB-BS-intercultural COB) has been raised through various laws and the supreme decrees: the protection of mother earth, achieve food security and sovereignty; support family farming, strengthen community economic organizations, support the irrigation sector among others[151].

From that, in Bolivia a new model of agrifood development based primarily on agricultural exports is implemented. This model is supported and encouraged by a number of theoretical suppositions, as the international context is very favorable since the food crisis of 2008-2009; there is a high unsatisfied international demand for food; there is a favorable increase in international prices of commodities and food among others. So, it´s necessary to harness this opportunity to generate foreign exchange because the country has great productive potential (land, water, natural resources) to increase production and meet this demand. In short, there is a large global market to conquer, and export is the best recipe for the development of Bolivia.

Under these theoretical assumptions, certain actors perform a series of proposals to increase exports and conquer the international market.

[151] "Ley Marco de la Madre Tierra y desarrollo integral para vivir bien";"Ley 144 de la Revolución Productiva Comunitaria Agropecuaria"; "Ley de Organizaciones Económicas Campesinas, Indígena Originarias-OECAS y de Organizaciones Económicas Comunitarias-OECOM para la Integración de la Agricultura Familiar Sustentable y la Soberanía Alimentaria"; "Ley de promoción y apoyo al sector riego para la producción agropecuaria y forestal" and others.

The agribusiness eastern grouped into various Chambers and private Confederations (located in the vast and rich regions of the east of the country) aiming to extend the current acreage of 5.2 million hectares (2014) to 13 million hectares in 2025 and switch production from 15 million tons food to 45 million tons in 2025 (which exported 21 million tons) (IBCE 2013).

The current government of the Movimiento al Socialismo (MAS) of Evo Morales supports this initiative and claims that will invest more than US $ 10,000 million in bi-oceanic corridors, infrastructure, roads and other; expand the agricultural frontier of the East to 1 million hectares per year; and exported US $ 26,000 million in food (Vice President of the Plurinational State Economic forum "The role of the private sector in the rural economy"; CNC, La Paz, 28.5.2014); so constantly inviting private capital to invest more and to liaise with foreign capital.

It also argues that as a result of this model, 2 million people left poverty. "In 2005, the rate of extreme poverty rate was at 38% of the population while in 2014 accounted for 18%. The chronic malnutrition rate came down to 15.5% in 2014 "(Ministry of Economy, L. Arce, El Deber 15/06/2014).

II. AGROFOOD EXPORTS

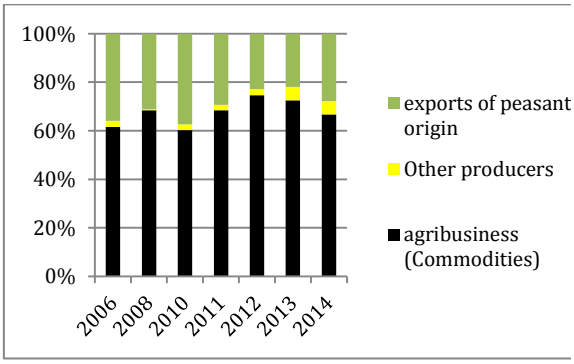
The main exports from the Bolivian agricultural sector have had a significant increase in recent years. In 2006 it exported worth of US $ 331.5 million; while in 2014 exports reached US $ 1761.7 million, which means that 8 years increased 5.3 times the value of exports, more than ever before for food exports in the country (see Annex Table 1).

Agricultural exports consist basically of oil, cereals, coffee, cocoa, fruits and other products that come from different kinds of (agribusiness, peasants, indigenous peoples) producers in tropical regions, highlands and valleys.

Exported products coming from agribusiness (sesame, sunflower, soybeans, peanuts, sugar and others) represented in 2006, more than US $ 212 million while in 2014 represent almost $us 1.274 million. During these 8 years there was a 6% increase in the total value of such exports.

In contrast, exports come from peasant production (fruits, coffee, cocoa, quinoa) in 2006 represent nearly 36% of these exports, while in 2014 represent nearly 28%. So despite the increase in the value and quantity of products exported, peasant products continue to have less prevalence in all the principal Bolivian agricultural exports[152].

Graphic No. 1
Changes in the value of exports by origin (2006-2014) (US $ Thousands)



Fuente: Built on the table No 1 of the Annex (INE)

The main export products are commodities, especially those produced from GM soya as (increased 4,5 times between 2011 and 2014), sugar cane (increased 3.3 times/2013) and alcohol from cane sugar (other fuel) which rose almost 2 times, all due to the expansion of the cultivated area and not due to increases in production yields that are the lowest in Latin America.

The main export products are commodities, especially those produced from GM soya as (increased 4,5 times between 2011 and 2014), sugar cane (increased 3.3 times/2013) and alcohol from cane sugar (other fuel) which rose almost 2 times, all due to the expansion of the cultivated area and not due to increases in production yields that are the lowest in Latin America.

III. THE CONSEQUENCES FOR FOOD SECURITY AND SOVEREIGNTY OF A MODEL BASED ON EXPORTS.

There are a number of consequences for the Bolivian food system economic model based on exports, among which the displacement of non-export crops, increased imports, excessive use of agrochemicals, and changes in the supply system food, among others.

3.1. The displacement of basic food crops.

The export products because of its high demand and growth, are displacing basic consumer products of the diet of the population.

In the east of the country.

For example, in the department of Santa Cruz, the main agricultural production region of eastern Bolivia, the production and export of genetically modified products, with particular and to use of biofuels it is creating a replacement of basic food crops in detriment of productive diversity and the loss of traditional products.

The table No. 2 in Annex shows that, between 2000 -2013, the Santa Cruz area cultivated increased from 1.1 million hectares to 2.4 million hectares (2.3 million Has in 2014/15).

According to INE, in 2000/2001 the Santa Cruz area of basic food crops of the population (beans, peas, onion, tomato, maize corn, potatoes, cassava and including wheat and rice) representing 7.1% of total cultivated, while export crops (sugar cane, sunflower, soy, sesame) accounted for 68,61%. In 2013/14, the same basic food crops represent 10.35% while export crops represent 71,38 % of the total cultivated area (They increased 3.73%).

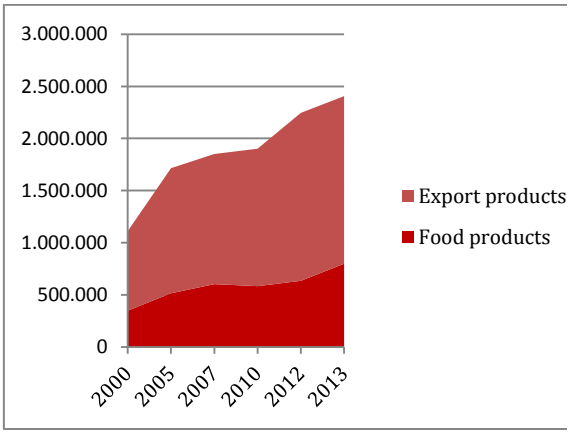
[152] Despite the strong incursion of quinoa exports that in 2014 represent up to 11% of total exports (compared with 2.7% in 2006).

This shows that the basic food crops have reduced their cultivated area, that is, in absolute terms, the less amount of land that is planted 14 years ago. In contrast, export crops and / or commodities have had a permanent increase in their cultivation.

Transgenic soybeans[153] grown in 688,889 increases between 2000 -2013 you while potato area - essential product consumption of the Bolivian population - increased by only 1.800 hectares in those years. Other basic crops of consumption baskets of the population (tomato, garlic, bean, cassava, barley grain) and even forages for animals (such as alfalfa and barley cabbage) have declined (see Graphic 2).

Then, it has reduced percentage of cultivated areas of basic consumer products at the expense of growing exports, which directly affects the domestic supply so should go to the imports of these products to satisfy domestic demand, losing and food sovereignty.

Graphic No. 2
Santa Cruz. Evolution of the cultivated area of food products and export products (Has)



Source: Table 2

Another aspect that calls for reflection is that soy is being produced not only by the agribusiness as in other countries like Brazil or Argentina; but also to by small peasant farmers (colonizers) from the west of the country who have changed their traditional crops per soybean cultivate; and also by recent peasant farmers who have received government land tax.

Both peasant farmers produce soy and delivered to agribusiness and exporters; however there is a difference highlighted. While peasant farmers colonizers work in the form of simple commodity economy (with family labor and own the means of production); others also of peasant farmers (ex leaders of social organizations and / or former government officials) have more land, machinery and are equipped renting and using salaried labor and making work their land, as usually its main activities are developed in other areas.

The result is being generated in the east of the country, a process of differentiation within the peasantry, with different levels of accumulation of capital. ¿Does this mean the creation of a peasant bureaucratic bourgeoisie allied to the government party? ¿Does the State is determined to create in rural areas of the east, a new social class?

In the Highlands.

The displacement or replacement of basic essential food for export crops not only takes place in the east (Santa Cruz) but also in other regions.

The case of quinoa - the star product nutritionally and even supported by FAO to promote their production - is another example of sustained above.

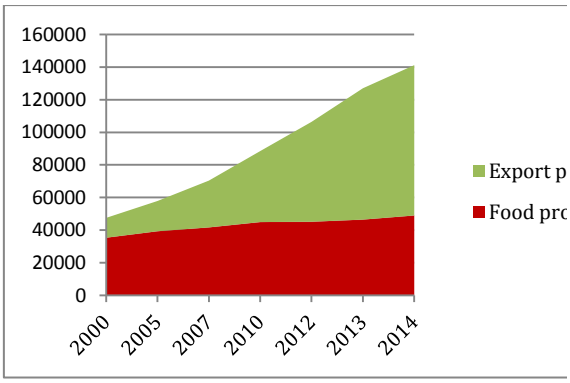
Quinoa is produced in the Bolivian highlands, mainly in the department of Oruro (and Potosí), to over 3,600 meters. The growth of the culture of this ancient product and basic food in the Andean population, has been rapid in the last decade and a half.

Table No. 3 of the Annex shows that in the last 14 years, the area planted with quinoa in Oruro increased 7,5 times. In 2000, quinoa represented the 25.5% of the total area planted, while in 2014/15 represented the 65,2%.

[153] That 99% is produced from GMOs

Increases strongly the area planted with quinoa, while plantings of all other products decreased percentage. The potato (and derivatives) -the main food product of the Andean population - in 2000/2001 represented 19.93% of the total area planted; in 2013/14 it represents 8.4% and 11.20% in 2014/2015. This means that stopped growing potatoes for growing quinoa, most of which was exported.

Graphic No. 3
Oruro. Evolution of the cultivated area of food products and export products (Has)



Source: Table No. 3

These statistics show that quinoa became a part of agribusiness exports, along with other products from the east of the country.

3.2. Increased food imports and food dependency.

As a result of changing consumer crops for export, they are left cultivate basic commodities and domestic production diminishes, so will have to recourse to imports of food products characterized as foreign to the food habits of the population and also because many of them are products that the country stops producing, despite the having adequate Bolivia geophysical conditions for it.

The official statistics of imports (Table 4 in Annex) show that between the years 2006-2014 imports of food increased 3 times in value and 1.4 times in amount. They went from $us 136,349,200 to $us 404.749 and 401,712 tons to 596.257 tons; that is to say, there is a constant increase in food imports.

Until 2012, the main products imported were wheat / wheat flour and derivatives account for 42%, but in 2014 represent 35% being displaced by imports from the "Prepared foods"[154] occupying first place (39.4% of the total import value).

Calling attention the growth of imports of these "products ready"that in 2006 represented US $ 48.2 million (only $ 6.9 million US in 1985) while in 2014 represent more than US $ 159 million (165.7 US $ million in 2013 million). Its value is multiplied by 3.3 times in 8 years, which on the other hand it demonstrates the incipient national food manufacturing industry and the globalization of food consumption outside of our eating habits.

The country is therefore dependent on these two food groups becomes (Wheat / derivatives; and food preparations) representing 3/4 (75 %) of total imports.

Other important import products are cheeses (increase purchases of $us 1.5 million on 2006-to $us 3.5 million on 2014) and fish ($us 4.4 million in the year 2006 to $us 16.8 on 2013 and $us 9.7 $us million in 2014); both groups of products mainly demanded by the middle and upper class because if we analyze in detail the types of fish of this group, stand canned fish, caviar and shellfish, products that were neither are consumed by rural populations and low-income populations.

In the analysis of food imports, attracts the attention imports of potatoes because Bolivia is one of the countries of origin of the product - fundamental in the diet of the Bolivian population - especially in the rural population and the low income; and having a permanent increase the quantity and value of imports dropping from US $ 272,477 in the year 2006 to US $ 1.162.400 in 2014; meaning that increases 4,2 times the value. In terms of quantity, in 2006 they were imported only 2,043 tons of potatoes / tubercles while in 2014/15 were imported 31.251 tons (almost 15 times).

[154] Homogenized preparations, sauces, condiments, prepared for sauces, soups and prepared not specified, according to the categorization of the INE.

If we compare the growth rate of imports of potatoes with the rate of growth of domestic production in the period indicated (see Figure 5?), we note that the index of domestic production is stagnant until 2012, increased slightly in 2013 and 2014. in contrast, imports increased 1,414% annual average[155].

"…. Change is not what worries me; what worries me is the loss of Andean achievement. Lose chuño and this is a fundamental loss; It is replaced with any bread made with any flour. Change is inevitable, the question is to judge what is the change that is best for us".

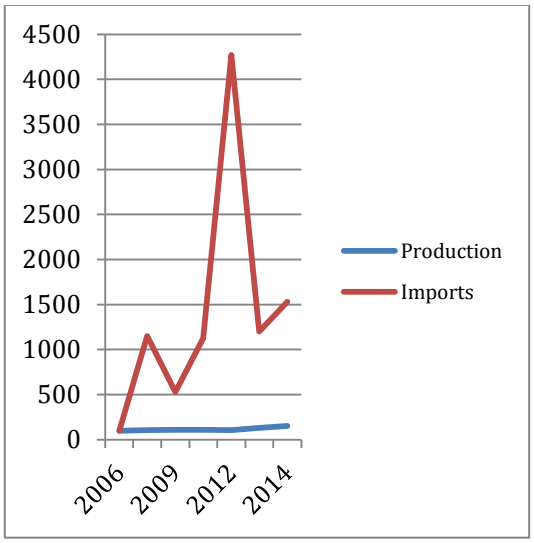
(John Murra) [156]

The same tendency occurs for other products. In the case of imported vegetables for example, they increase permanently the $us 2,64 million on 2006 to $us 9,40 million in 2013; means that 3.5 times increase.

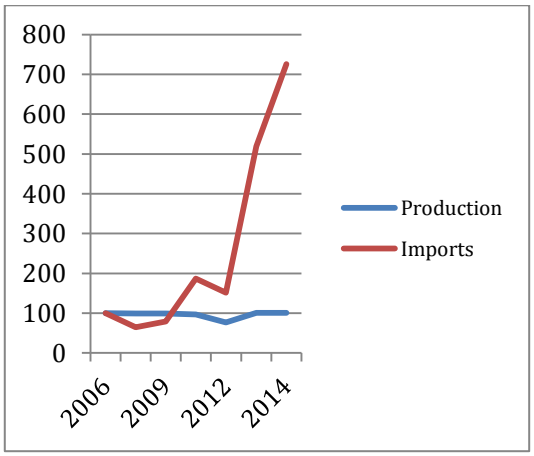
The case of the tomato is another representative example in this regard. While the rate of domestic production of tomatoes decreases from 2006 to 2012[157] (as seen in the case of cultivated areas in Santa Cruz), the index of imports of this product permanently increase, especially in 2013 and 2014 shown in Graphic No. 4

Graphic No. 4
Index growth in domestic production and imports of potato and tomato (2005-14)

Potato



Tomato



Source: Built on INE data and Table 4 Annex

Another group of products that attracts attention imports are fruits[158], because while in 2006 it was imported in the amount of $us 5.7 million, in 2013 were imported fruits valued at $us 19.3 million.

3.3. Excessive and irrational consumption of agrochemicals.

Another consequence of the development model based primarily on exports is excessive and irrational consumption of chemicals (which are mainly used for commodities), because 19,309

[155] In this sense, it becomes effective the phrase that "Bolivia, unlike Mexico, has not needed to have a NAFTA (NAFTA North) to decrease the production of the product that gave rise worldwide - main food product of the population - and become an importing and dependent country".

[156] Anthropologist, author of multiple articles and research works, and one of the researchers of the Andean world; In Calderón F. 2011, pg. 47

[157] In 2013/14 and 2014/15 the production is hardly increased to the levels of 2006/07.

[158] Especially because Bolivia has the ability to produce all kinds of fruits and varieties.

tons imported in 2005 was passed to 28,921 tons in 2009 and 142.000 tons in 2013[159].

That is imports increased 735% in the eight years considered as shown in the following table.

Table No. 1
Bolivia-Imports of agrochemicals
(2000-2012)(TM)

Chemical products	2000	2005	2007	2009	2010
Insecticides		5.535	5.971	8.111	8.530
Fungicides		1.945	2.441	3.648	839
Herbicides		11.829	14.139	17.161	17.300
Total	8694	19309	22551	28921	26669

Source: Table based data INE (2000-2010) and Asociación de Proveedores de Insumos-APIA/SCZ (2012)

The growth of these imports means that in 2005 were used 7.55 kg of agrochemicals per hectare harvested, in 2013 are used 40,48 kg/Ha[160], while in 2014 was 38 Kg/Ha used[161]. This also means consumption in 2012, equivalent to 9.03 kg average of agrochemicals by Bolivian habitant. This figure is higher than the equivalent of the average consumption in Brazil[162] was 5.2 Kg/agrochemical/person/year (www.RAP-AL.com)

¿Why this rapid growth in the use of chemicals … herbicides in particular[163]? Basically because the production of monocultures like soybeans, need intensive use, especially with the presence of the herbicide glyphosate (which increasingly generates the emergence of new resistant weeds).

Faced with increasing in cultivated soybean area, in the year 2014, 12,000 tons of glyphosate were imported (Los Tiempos 07/19/2015), despite the fact that the WHO says that glyphosate produces cancer in humans and is very associated with renal failure.

3.4. Changes in the marketing system.

The principal characteristic of food marketing in Bolivia is that it remains in the hands of a series of intermediaries merchants who pay low prices to farmers and indigenous producers, prices that do not cover production costs.

But the principal consequence of the development model based on exports is that the number of imported products have invaded the principal markets of big cities (La Paz, Cochabamba, Santa Cruz), of intermediate cities and the rural sector. These imports are primarily channeled through supermarkets who monopolize sales, selling products of various countries, and food commonly known as "junk."

They also sell products below the price paid to domestic producers and in many cases, sell some products at a loss[164], with the objective of achieving customer loyalty; which affects the decrease in sales of fresh produce and locally sourced in traditional markets, and also in a low price to the producer.

According to the Ministry of Economy and Public Finance, sales in supermarkets in the country has tripled in the last eight years because a accumulated $us 347 million between 1999-2005 went to $us 2,160 million in the 2006-2013 period; that is, there was an increase of 522%. (La Razón 27.04.2014).

3.5. Other consequences

Stop growing basic consumer products and plant / expand exports - as discussed above - is not just a reassignment of crops and changes in land use,

[159] In 2013, Bolivian pesticide imports come mainly from China (Los Tiempos 08/25/2015)
[160] For a cultivated area of 3.507.257 Has (2012-13) in the whole country area (www. MDRyT)
[161] According to the INE, in 2013 the imported volume was 142,000 tonnes agrochemicals and in 2014 arrived in 131,000 tons (by the bad weather). In this volume we must add 40,000 tons (30% of total imports) by way of contraband (www.PROBIOMA). In value terms, imports in 2013 signified $ 309 million and US $ 306 million US in 2014 (Los Tiempos 07/19/2015)
[162] The world's largest consumer of pesticides, with over one million kgs / liters in 2009 (ECOPORTAL 31/05/2011)
[163] On the other hand, it increases the country's dependence towards imports of these chemicals.
[164] Common practice in supermarkets - is actually a disloyal competition - therefore what the customer does not pay on a product it will be paid in another (commonly called "compensation of prices").

but above all a displacement of the indigenous / peasant agriculture into a capitalist agriculture.

Deforestation. The change of forests to agricultural crops (changes in land use) involves the deforestation of vast areas of forests, that between 2001 and 2012 totaled 2.3 million hectares (Source- ABT / Forests and Lands Authority, published by La Razón 07.23.2014), a figure which is permanently augmented[165].

Consumption. Is evident that Bolivia is inserted into a process of homogenization and globalization of consumption patterns (foreign to traditional habits), and that control of these patterns is in the hands of the market and agribusiness. This, discourages diversification /production of native foods of high nutritional value, devalues genetic resources, and increases the consumption of certain products (chickens grown with hormones for example[166]) driving to the other extreme of the situation: obesity (and diabetes) in large populations in major cities of the country, which is as grave as child malnutrition.

Vulnerability to food insecurity. Also highlights that spite of the high increase in production of "commodities" (which also means more income from exports) the situation of the people living in those areas of production, in terms of Vulnerability to Food Insecurity (VFI), has hardly changed and/or stay the same over the last 10 years.

For example, in the case of municipalities of Cuatro Cañadas and Pailon (soybean producers), in 2005 the level of VFI was 3 (intermediate) and in 2012 (latest official data available) was 2 (low). In the case of the municipality Garci Mendoza where quinoa is produced (nutritionally valuable food), in 2003 the level of vulnerability to food insecurity it was high (4) and in 2012 continues in high vulnerability[167]. This means that its population is among the most food vulnerability in Bolivia.

In general terms of the national population, the VFI (closely linked to poverty) has barely declined in recent years. According to official reports of food vulnerability[168], in the year 2002, 112 municipalities had a high VFI, which was reduced to 102 in 2012. This means that there was a reduction of only 9% of the municipalities (less than 1% per year).

In several departments, municipalities with high VFI in 2012 are *the same municipalities* that already had high vulnerability in 2002 (64% of the municipalities of La Paz and 91% of the municipalities of Cochabamba, for example).

Parallel to this, various government reports indicate that poverty has decreased at the national level: "In 2005 moderate poverty in the country was 61% and now is 43% .... We're down 17% .... We have lowered the urban poverty from 51% to 34% and rural 77% to 61%. "(Minister of Economy, L. Arce, El Deber 15/06/2014) which would show that Bolivia is taking a very big social differentiation, generating highly polarized extremes because there social sectors / regions where poverty is concentrated, and there are very

[165] While in 2013 the government authorities approved 3,418 clearing plans, in 2014 they authorized 6,192,(1.8 times more). Also, unauthorized dumps totaled in the 2013, 88.486 Has (60% more than in 2012), of which 81% were private properties and 19% of peasant and indigenous communities (Los Tiempos 06/ 21/2015).

[166] It is held as a great success of the model, the increased consumption of poultry in the population: "…there is an increase in the consumption of poultry meat: 17 kg / person / year 2005 to 25.8 kg / person / year 2013 "(Report of Management 2013 President Evo Morales A. to the Bolivian people") (La Razón 22.01.2014). According to the Observatory Agroproductive MDRyT, "In the year 2014, consumption of chicken per person in Bolivia is 35.57 kgs ... .in the city of La Paz reached to 62.4 kg / person / year"(La Razón 07/15/2015).

[167] In 2005, VFI levels were established as: 1 = very low; 2 = low level; 3 = medium level of vulnerability; 4 = high level of vulnerability; 5 = very high level. In 2012, VFI levels are: 1 = low vulnerability, 2 = medium vulnerability; 3 = high vulnerability (MDRyT/VDRA; UE ;WFP-2012)

Map of vulnerability to food insecurity is established by components. In component of Availability (ability to produce food considering the water balance) means that municipalities generate an average of 1,622 kc / person / day, less caloric value recommended by the FAO for feeding a person. In the access component (considering extremely poor, unemployed population) means that many people in the municipality (7 out of 10 people) live in extreme poverty, struggling to access food. In the component Use (considering the chronic malnutrition of children, diarrhea, respiratory infections, and access to basic services) it means that the population has insufficient consumption patterns in nutrients (average rate of 33.64% malnutrition in children under 5 years) (MDRyT/VDRA;UE; WFP-2012).

[168] See "Analyzing and mapping vulnerability to food insecurity in Bolivia" FAO, WFP, SINSAAT/UPAE the Ministry of Sustainable Development and Planning (2002); and the "Map of vulnerability to food insecurity," MDRyT/VDRA, PMA and UE (2012).

limited social sectors where richest is being concentrated.

IV. CONCLUSIONS AND REFLECTIONS

4.1. Conclusions

- The development model that is implemented in Bolivia, prioritizes and encourages exports and commodities (based on agrochemicals, GMOs, deforestation, expansion of the agricultural frontier) reinforces agribusiness based on a productivist agribusiness that intended to produce more food export; generating in turn a decrease in basic consumer goods and an increase in imports, thus increasing food dependency of the country that is predominantly agricultural, and decreasing the ability of self-sufficiency.

- The increase in imports also assumes the intrusion of foreign products to food consumption habits of the population, which is a transformation of the consumption structure leaving to consume domestic products rich in nutrients and consuming some not so nutritionally rich. That is, domestic consumption is being directed toward a model dependent on imports. Complementary, overall levels of malnutrition in the population has declined in recent years, although in very slow processes compared to other Latin American countries.

- The agricultural production of basic food products is stagnant in some areas and in others it is in a clear process of decline and decay. There are few areas where there is an increase in production.

The analysis of agricultural production in Santa Cruz (and Oruro) shows that there is a change in the culture of the products and is failing to produce basic food products (tomatoes, potatoes, vegetables, etc) by monoculture.

To them, have added various peasant farmers, encouraged by the public land that the government has given them and support to obtain better sales prices face agribusiness exporters, among other supports. This support for the incorporation of these new agribusiness producers soy farmers, allows us to conclude that the government intends to create a new small peasant capitalist agrarian bourgeoisie; which in the same time will generate a disintegration throughout the Bolivian indigenous peasant sector.

- In the perspective of rural disintegration, there are differences between a capitalist peasant farming in the east, whose income is based on the production of commodities, while the peasant farming of the valley but especially the highlands, largely they base their income measured in money transfers of State (Bonds).

- By the proposals and actions in this model, they aim to develop an agro-export model of development similar to that implemented in other countries (Brazil, Argentina, Paraguay) with an emphasis on increasing product demand in the international context, which is not in doubt on the use of GMOs, in the deforestation of large forest regions, in the expansion of the agricultural frontier, intensive use of chemicals that destroy the organic matter in the soil, in the displacement of indigenous populations, intensive use of water, and other, generating concentration and land grabbing, concentration of large amounts of financial income in few hands, increasing environmental degradation and loss of biodiversity. To become generalized the above, also there will be increased emissions of greenhouse gases as previously affirmed by the FAO (www.fao.org/news/story/es/item/41351)

- It is remarkable that this model based on exports is supported by a peasant indigenous government in contradiction to their approach to food sovereignty and Care of Mother Earth), when should support models of agricultural development to protect "Mother Earth" , reverse

the expansion of monoculture, accumulate organic matter in the soil through crop diversification, integrated crop and animal production (as opposed to what is currently done in Oruro with quinoa production for example); increased incorporation of trees and vegetation to generate greater soil fertility, increased water retention capacity, reduced soil erosion, improved protection and biological control of pests and diseases, among others.

- The current model of agricultural development in Bolivia is resulting in increased food dependency and decreasing the ability of self-sufficiency, farther and farther away from the approach of food sovereignty.

4.2. Some reflections.

- In reaffirming the agribusiness model of agrifood development, Bolivia is subordinating the highly industrialized countries and economies through agricultural exports; and is also taking in the view of the dominant and commercial world that considers nature (animal, forest, vegetable, mineral) as a simple economic resource to be exploited (extractive) regardless of the environmental degradation, the erosion caused or oligopolies dependence on seed and agrochemicals.

This conception of agribusiness (market transactions, prices, exports) considers agriculture a source of lucrative business so that food is a commodity, like other products or materials.

It is worth remembering that food is not a commodity, it is a right to which all citizens must access as stipulated in the Human Right to Food signed by Bolivia; as well as raise their own social organizations that politically support the ruling party of Bolivia.

- Moreover, the above data (greater consumption of chickens, higher sales in supermarkets / restaurants and others) show that there is social mobility in Bolivia's population, and that growth in demand for this new social sector is not favoring national production structure.

That is, the social sector (middle class) that has left poverty and now have higher incomes, greater market access and material goods, is not linked to an increase in domestic production of basic foods, increased agricultural productivity neither to increased agricultural employment generation.

The increase in demand for consumer goods that social sector translates into a rise in imports, which is due not only to imported products are low price (subsidized in their countries of origin) but also to the internal productive yield is low (agricultural worker productivity is insufficient).

- Contrary to what might be expected, the demand for this new middle class is not assuming an opportunity to strengthen or expand the incipient food manufacturing industry (which works with mostly imported inputs) or for the growth of indigenous peasant agricultural production.

Both aspects - on the other hand - carried ask another question more. It is known that the middle class is counting among its revenue different bonuses and subsidies that the Bolivian government established (Renta Dignidad, Subsidies Breastfeeding, education and other bonds). ¿Those bonds, are they stimulating domestic growth food or rather are weakened by increasing imports?

- Some theorists justify the increased consumption of certain foods (prepared soups, etc.) and sales of supermarkets / restaurants for the trade globalization process in the country and the increasing disintegration of the value chain that accompanies it, so the size of the markets and national fairs lost their importance in favor of the global market for the benefit of international markets.

- In this regard, although it is clear that the domestic market can´t be conceived independently of external market is also evident that Bolivia has a number of potential and productive diversity, ecological diversity and cultural conditions suitable geo. Bolivia can supply fully not only local, regional and national markets.

Also can supply foreign markets with an organic, healthy, clean and rich in nutrients.

In summary, Bolivia lives in a process of progress and achievements but to turn reversals; framed in a process of contradictions.

No doubt there are a number of **successes** as the laws and legal dispositions that benefit the indigenous sector peasant food producer[169]; there is a decline in child malnutrition and extreme poverty; the population has increased availability of financial resources and access to material goods; more programs to support food production and agricultural products (EMAPA, my water, PASA, EMPOWER / DETI, chop, agricultural insurance and others). There is a redistribution of income through benefits and allowances (conditional transfer). There is an appropriate policy of price controls and food supply to protect consumers, and there are some actions to support the marketing of producers to consumers in the form of direct sales ("fair price and weight"), among others.

All these actions and achievements are arrangements for indigenous peasant sector, which never happened in years and previous governments, which must be stressed and recognized.

However, there are a number of **setbacks**, such as further differentiation among peasant farmers soy producers east of the country (linked to agribusiness) and also with the rural and indigenous regions of the valleys, highlands and the Chaco; the country has become more dependent on food imports than in previous years; the consumer depends on state subsidies for access to adequate basic food prices; fairs and farmers markets are decreasing their participation in the distribution / supply of food and are deforesting large amount of forests by the expansion of agricultural commodities especially, among others.

These ups and downs show a series of **contradictions** because while food sovereignty poses, increase and diversify food imports; care of Mother Earth[170] poses while the use of agrochemicals is increased and the agricultural frontier expands at the expense of deforestation; is posed support the production of traditional seeds / create seed banks / support the production of natural fertilizer, compost and recycling of organic matter (Article 38 of Law 144) while the use of GM seeds not only a product (soy) is permitted but in several products (sugarcane and corn in the Chaco); national sovereignty poses while the country is more dependent on transnational owners of agrochemicals and genetically modified seeds, among others.

In short, the new model of agricultural development is moving towards a developmental logic in alliance with agribusiness department of Santa Cruz. In fact, the capitalist economy is diversifying combining agribusiness, foreign investments of transnational capitalists and small farmers of Eastern producers, all linked under the State seeking to play the role of articulator, facilitator of the capital.

[169] "Ley Marco de la Madre Tierra y desarrollo integral para vivir bien"; "Ley 144 de la Revolución Productiva Comunitaria Agropecuaria"; "Ley de Organizaciones Económicas Campesinas, Indígena Originarias-OECAS y de Organizaciones Económicas Comunitarias-OECOM para la Integración de la Agricultura Familiar Sustentable y la Soberanía Alimentaria"; "Ley de promoción y apoyo al sector riego para la producción agropecuaria y forestal", among others.

[170] Through the "*Law of Mother Earth*" that establishes: "clean production processes ... respect to the regenerative capacity of the earth ... conservation of living systems of the earth ... to prevent the risk conditions, among several others."

BIBLIOGRAPHY

. Calderón Fernando (2011) “Pon la vida, pon los sueños: Conversación con John Murra” in the book “Los laberintos de la libertad. Diálogos latinoamericanos”. La Paz, Plural/CESU

. Coordinadora Interinstitucional de Organizaciones Económicas Campesinas (CIOEC) (2004).”Integración regional y producción campesina. La urgencia de políticas de soberanía alimentaria” La Paz (J.Prudencio y G.Ton)

. Empresa EMAPA (2011) Informe de rendición de cuentas - 2011

. ECOPORTAL (2011) “El uso de plaguicidas en Brasil sigue creciendo” 31/05/2014, en www.ecoportal.net

. FAO/PMA/Ministerio de Desarrollo Sostenible y Planificación (SINSAAT-Sistema Nacional de Información en Seguridad Alimentaria y Alerta Temprana y UPAE- Unidad de Planificación y Alianzas Estratégicas)(2002).“Análisis y cartografía de la vulnerabilidad a la inseguridad alimentaria en Bolivia”. La Paz

. Global Harvest Initiative (GHI) y Banco Interamericano de Desarrollo (BID) (2014/06). ”La próxima despensa global: Cómo América Latina puede alimentar al Mundo”

. Heinisch Claire (2013) "Soberanía alimentaria: un análisis del concepto" en Comercialización y Soberanía Alimentaria, AVSF

. Instituto Boliviano de Comercio Exterior (IBCE) (2013) No. 214, “Encuentro agroindustrial productivo. Más inversión, más empleos”. Julio 2013, Santa Cruz/Bolivia.

. MDRyT/Dirección General de Planificación (2014). “Plan del Sector Desarrollo Agropecuario (PSDA) 2014 - 2018 Hacia el 2025” (2014). La Paz.

. MDRyT/ViceMinisterio de Desarrollo Rural y Agropecuario, Programa Mundial de Alimentos (PMA) y Unión Europea (2012). “Mapa de vulnerabilidad a la inseguridad alimentaria”. LP

. Ministerio de Planificación para el desarrollo/UDAPE/PMA (2008) “Diagnóstico, modelo y atlas municipal de seguridad alimentaria en Bolivia”

. OXFAM (2011) “Tierra y poder. El creciente escándalo en torno a una nueva oleada de inversiones en tierras” Informe 151, en www.oxfam.org/es/crece/policy/tierra-y-poder.

. Ortíz Ana Isabel (2013). “El rol de EMAPA en la producción y provisión de alimentos en Bolivia: estudio de los casos del trigo y del arroz” en “Las empresas públicas de alimentos. Avances, retrocesos y desafíos”. AVSF, LP

. Prudencio Julio (2014) “Renunciar a la seguridad y soberanía alimentaria por comercializar más?....o la subordinación del sistema alimentario boliviano a las exportaciones” (Análisis del “Plan del Sector. Desarrollo Agropecuario 2014-2018. Hacia el 2025”)

. Prudencio Julio (2013) “Mitos y debates. Análisis del tema agroalimentario en Bolivia”. AVSF, La Paz

. Prudencio Julio (2013 b) “Programa Nacional de Alimentación Complementaria Escolar. PNACE 2013-2020” La Paz

. Pimbert M. (2009) "Towards food sovereignty" IIED, London.

. Productividad Biosfera y Medio Ambiente (PROBIOMA) (2014). Entrevista al director Miguel Á. Crespo.

. Robin Monique Marie (2012) « Les Moissons du futur. Comment l´agroécologie peut nourrir le monde » La découverte, Paris, France

. Windfuhr M. y Jonsén J. (2005) “Food Sovereignty: towards democracy in localized food systems” ITDG.

GLOSSARY

ABT -Autoridad de Bosques y Tierras
CIOEC – Coordinadora Interinstitucional de Organizaciones Económicas Campesinas
CNC - Cámara Nacional de Comercio
COB- Central Obrera Boliviana
CSUTCB- Confederación Sindical Única de Trabajadores Campesinos de Bolivia
CNMCIOB/BS -Confederación Nacional Mujeres Campesinas Indígenas Originarias Bolivia-Bartolina Sisa
DGDR – Dirección General de Desarrollo Rural
EMAPA – Empresa de Apoyo a la Producción de Alimentos
EMPODERAR – Emprendimientos Organizados para el Desarrollo Rural (Programa)
FAO – Food and Agriculture Organization of the United Nations
GHI - Global Harvest Initiative
IBCE- Instituto Boliviano de Comercio Exterior
IICA – Instituto Interamericano de Cooperación para la Agricultura
MDRyT – Ministerio de Desarrollo Rural y Tierras
MDRAyMA – Ministerio de Desarrollo Rural, Agropecuario y Medio Ambiente
NAFTA - North American Free Trade Agreement
TLCAN - Tratado de Libre Comercio de América del Norte
OECAS –Organizaciones Económicas Campesinas
OMC - Organización Mundial del Comercio
PSDA- Plan del sector Desarrollo Agropecuario
PASA – Programa de Apoyo a la Seguridad Alimentaria
PND - Plan Nacional de Desarrollo
PMA – Programa Mundial de Alimentos
UPAE - Unidad de Promoción Económica y Financiamiento Rural.
UE – Unión Europea
VIA- Vulnerabilidad a la Inseguridad Alimentaria
VDRA - Vice Ministerio de Desarrollo Rural Agropecuario
SINSAAT – Sistema Nacional de Seguimiento de la Seguridad Alimentaria y Alerta Temprana

ANNEXES

Table No. 1
The principal Agrifood exports (2006-2014) (Tm y $us)

Products	2006		2008		2010		2011		2013		2014p	
	(Tm)	(000 $us.)	(Tm)	(000 $us.)	(Tm)	(000$us.)	(Tm)	(000$us.)	(Tm.)	(000$us.)	(Tm.)	(000$us.)
Milk and its derivatives	3.754	8.292,3	807,3	2.861,6	4.774,2	14.476,7	2.631	8.890,1	12.269	35.123	19.450	44.146
rice	8.210	1.661,6	54,0	7,5	3.291,2	2.564,5	1.516	802,9	1.875	1.160,3	-	-
quinoa	7.853	9.037,3	10.538,8	23.252,1	15.763,9	47.195,1	20.458	63.687,5	35.217	153.727,4	29.505	196.640
macaroni / cakes	1.683	701,2	2.290,2	1.835,8	3.065,9	3.962,0	3.719	6.245,9	4.720	8.830,3	4.977	14.682
legumes	24.088	10.331,6	35.448,7	42.647,9	45.725,6	36.933,7	31.892	29.037,6	39.632	43.493,4	39.632p	43.493p
fruit	107.586	81.169,9	118.528,6	101.100,4	119.690,5	119.685,3	140.445	172.293,6	139.677	161.382,2	156.418	214.963
Sugar	43.273	18.459,1	147.171,5	49.775,5	87.974,8	45.383,6	880	884,0	151.522	77.184,9	19.116p	10.228p
Coffe	5.701	14.207,1	4.446,4	15.030,4	4.625,0	16.008,4	4.603	26.264,3	3.655	15.586,8	3.601	16.594
Cocoa	581	1.671,1	417,0	2.114,8	1.014,1	3.985,6	688	2.702,7	428	1.872,8	179	1.056,3
Soybeans /oils	299.375	136.168,4	243.881,5	212.943,1	274.810,6	208.719,8	251.802	278.066,3	314.758	287.887,1	367.925	293.533,9
Sunflower / oils	54.629	36.160,9	123.185,7	135.218,3	125.381,8	106.096,7	54.690	69.454,8	73.764	78.234,4	57.528	55.878,2
Sesame / oils	14.534	13.736,2	4.680,4	11.359,7	7.943,8	11.862,5	8.888	15.246,6	6.309	13.523,0	6.309p	13.523p
Total	**571.267**	**331.596,7**	**691.450,1**	**598.147,1**	**694.061,40**	**616.873,90**	**522.212**	**673.576,30**	**783.826**	**878.006**	**704.640**	**904.738**
alcohols	51.766	21.961,1	85.562	38.700,7	105.201	51.659	63.106	43.598,5	70.197	47.426,2	n.a.	n.a.

(n.a. = not available/ P=provisional) Source: Table built on INE data / Foreign Trade

Table No. 2

Santa Cruz: Evolution of the cultivated area (main crops) (2000-2014)

Crops	2000/01		2005/06		2007/08		2010-11		2013/14		2014/2015	
	Has	%	Has	%	Has	%	Has	%	Has	%	Has	%
Cereals	283.652	25,51	437.019	25,48	527.810(6)	28.50	495.228	26.04	675.935	28.09	646.064	28,08
Rice	104.700	0,96	144.200	8,4	132.631	7.16	130.520	6.86	102.313	4.25	110.300	4,79
Barley grain	310	0,02	319	0,01			279	0.01	275	0.01	264	0,01
Corn grain	103.972	9,35	153.500	8,94	204.473	11.04	148.298	7.79	200.107	8.31	202.300	8,79
Sorghum	42.670	3,83	95.000	5,53	134.292	7.25	108.000	5.67	273.724	11.37	211.900	9,22
Wheat	32.000	2,87	44.000	2,56	56.072	3.02	108.131	5.68	99.516	4.13	121.300	5,27
Stimulants (coffee)	450	0,04	457	0,02	864	0.04	900	0.04	799	0.03	865	0,03
Frui t(2)	16.536	1,48	16.990	0.99	21.664	1.17	20.201	1.06	20.963	0.87	20.905	0,9
Vegetables	20.327	1,82	34.035	1,98	35.012(1)	1.89	51.824	2.72	83.094	3.45	80.058	3,48
Garlic	242	0,02	244	0,01	85	0.004	81	0.004	80	0,003	85	0,005
Pea	280	0,02	823	0,04	549	0.02	548	0.02	564	0,02	570	0,02
Onion	332	0,02	477	0,02	539	0.02	529	0.02	552	0.02	560	0,02
Bean (Frejol, poroto)	11.158	1	23.600	1,37	25.050	1.35	44.328	2.33	75.691	3,14	72.680	3,17
Broad beans (Habas)	160	0,01	173	0,01	57	0.003	55	0.002	52	0,002	50	0,002
Maize corn	1.459	0,13	828	0,04	4.748	0.25	4.580	0.24	4.624	0,19	4.600	0,19
Tomato	6.696	0,6	7.890	0,46	1.731	0.093	1.703	0.08	1.531	0,06	1.513	0,06
Industrial / Oleaginosas	762.862	68,61	1.199.802(3)	69,95	1.248.398	67.43	1.317.762	69.29	1.607.436	66.80	1.534.140	66,69
Cotton	9.000	0,8	7.227	0,42	4.500	0.24	4.500	0.23	2.989	0,12	3.400	0,14
Sugar cane	71.582	6,43	99.650	5,81	135.415	7.31	122.859	6.46	146.327	6,08	140.850	6,12
Sunflower	135.000	12,14	99.350	5,79	259.214	14.00	142.525	7.49	203.000	8.43	215.600	9,37
Peanut	3.037	0,27	3.075	0,17	3.479	0.18	3.243	0.17	3.341	0,13	3.240	0,14
Soybeans	544.243	48,94	940.000	54,8	832.098	44.94	1.020.635	53.66	1.233.132	5 1,25	1.150.600	50,04
Sesame	500	0,04	45.000	2,62	12.821	0.69	24.000	1.26	18.647	7.74	20.450	0,88
Tubercles / roots	27.618	2,48	26.368	1,53	16.915	0.91	15.754	0.82	17.775	0.73	17.987	0,78
Potato	6.483	0,58	7.790	0,45	6.532	0.35	6.362	0.33	8.127	0,33	8.302	0,36
Yucca	21.135	1,9	18.578	1,08	9.749	0.52	9.392	0.49	9.648	0,40	9.685	0,42
Forrajes	430	0,03	432	0,02	124	0.006	752	0.03	72	0.002	68	0,002
Alfalfa	150	0,013	162	0,009	100	0,005	500	0.02	52	0,002	50	0,002
Barley cabbage	280	0,025	270	0,01	24	0,001	252	0.01	20	0,008	18	0,0008
TOTAL	1.111.875	100	1.715.103	100	1.851.336	100	1.901.744	100	2.406.074	100	2.300.087	100

(1) It includes 2,253 hectares of pumpkin, cabbage and other

(2) It includes bananas, peaches, citrus and others.

(3) It Includes 5,500 hectares of castor oil or tártago

Source: Unidad de Promoción Económica y Financiamiento Rural. DGDR - VMDR – MDRyT/Observatorio Agroambiental y Productivo .

Table No. 3

Oruro: Evolution of the cultivated area (main crops) (Has) 2000-2014

Crops	2000/2001		2005/2006		2010/2011		2012/2013		2013/2014		2014/2015	
	Has	%	Has	%	Has	%	Has	%	Has	%	Has	%
cereals	18.084	38.03	22.833	39.43	32.020	45.49	65.074	61.16	84.324	66.41	95.595	67.75
Barley grain	4.960	10.43	3.383	5.84	2.578	3.66	2.983	2.80	2.994	2,35	3.045	2.15
Grain corn	45	0.09	59	0.10	54	0.07	50	0.04	45	0.03	115	0,08
Quinoa	12.141	25.53	18.535	32.01	28.665	40.73	61.216	57.53	80.470	63,37	92.118	65,29
wheat	938	1.97	856	1.47	723	1.02	825	0.77	815	0,64	317	0,23
vegetables	5.484	11.53	5.493	9.48	5.364	7.62	5.726	5.38	5.737	4,51	3.406	2,41
Garlic	45	0.09	36	0.06	36	0.05	39	0.03	35	0,02	30	0,02
Pea	120	0.25	97	0.16	84	0.11	90	0.08	94	0,07	82	0,05
Onion	508	1.06	840	1.45	1.038	1.47	1.098	1.03	1.092	0,86	720	0,51
Bean	4.811	10.11	4.520	7.80	4.206	5.97	4.499	4.22	4.516	3,55	2.574	1,83
Tubercles	9.190	19.33	9.521	16.44	9.686	13.76	9.635	9.05	10.791	8,49	15.810	11,20
Potato	9.190	19.33	9.521	16.44	9.686	13.76	9.635	9.05	10.791	8,49	15.810	11,20
Forrajes	14.783	31.09	20.048	34.62	23.307	33.11	25.954	24.39	26.120	20,57	26.318	18,64
Alfalfa	6.224	13.09	10.021	17.30	11.998	17.048	12.900	12.12	12.978	10,22	13.054	9,24
Barley (Berza)	8.559	18.00	10.027	17.31	11.309	16.06	13.054	12.27	13.142	10,35	13.254	9,40
Total	47.541	100	57.895	100	70.377	100	106.389	100	126.972	100	141.129	100

Source: Built with data of Unidad de Promoción Económica y Financiamiento Rural. DGDR/VMDR y MDRyT/ Observatorio Agroambiental y Productivo

Table No. 4
Food imports (2006 a 2014) (Tm and thousands of $us)

Products	2006		2007		2008		2009		2012		2013		2014	
	Tm	000 $us	Tm	000 $us	Tm	000 $us	Tm	000 $us	Tm	000 $us	Tm	000 $us	Tm	000 $us
Milk and milk products	8.395	9.955,7	6.487	7.938,6	6.486	8.897.1	6.276	7.685.6	10.192	15.737.4	10.196	17.148.4	10.393	18.577,8
Cheeses	659	1.554.1	622	1.652,4	439	1.632.1	523	1.860.7	807	3.456.8	483	2.096.0	773	3.560,2
Fish, shellfish	8.003	4.493.4	5.549	5.081,7	11.040	9.510.9	10.318	9.793.3	12.171	15.420.9	12361	16.840.7	7.538,6	9.780,3
Wheat/ flour/derivatives	308.326	62.779.4	370.910	103.181,7	340.003	158.923.9	389.108	136.723.6	353.601	146.913.3	316.368	153.190.2	362.738	142.757,3
Rice	2.011	513.1	13.417	5.489.7	43.998	22.421.6	16.190	7.308.4	2.640	1.737.2	36.637	19.773.6	79.594	39.657,2
Corn									4.082,9	14.047,3	3.043,5	9.330,7	4.880,7	10.987,4
Potatoes, tubers, roots	2.043	272.4	17.127	1.453.4	23.475	1.508.5	10.762	1.261.5	7.293	1.236.1	23.732	1.730.6	31.251	1.162,4
Tomatoes	467	44.4	537	55.4	304	32.8	368	30.6	708	65.4	2416	225.3	3.387,6	308,6
Vegetables	5.354	2.649.1	4.149	2.682.7	5.272	4.439.5	6.533	4.810.1	11.469	7.655.6	15.188	9.477.9	11.990	1.675,7
Fruits	24.151	5.798.8	26.574	7.267.7	26.909	8.463.6	33.816	10.131.0	37.704	12.094.8	45.174	19.392.7	40.187,7	16.522,1
Prepared soups	42.303	48.288.8	56.876	66.271.5	43.787	80.481.4	32.084	73.164.5	41.915	146.946.1	43.913	165.776.4	43.523	159.760
Total	**401.712**	**136.349,2**	**502.248**	**201.074,8**	**501.713**	**296.311,4**	**505.978**	**252.769,3**	**478.500**	**351.263,6**	**506.468**	**405.651,8**	**596.257**	**404.749**

Source: Built with data of INE (Foreign trade)

Table No. 5

National production of some agricultural products (2006-2015)(Tm)

Product	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15p
Wheat	162.715	161.553	201.508	255.356	237.847	145.862	226.864	217.400	380.000
Potatoes	892.554	935.862	956.953	975.418	943.176	974.029	928.614	1.161.000	1.363.681
Tomatoes	53.500	52.324	53.070	53.062	50.518	51.749	44.020	53.851	54.034

Source: MDRyT, 2015

ANNEXES

Table No. 1

Food imports produced by the indigenous peasant family economy according to product groups (2000-2018)™

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019p
1.Total Cereals	**273.108,3**	**243.100,4**	**284.928,5**	**309.019,2**	**261.696,0**	**211.852,9**	**134.176,7**	**125.168,1**	**106.132,0**	**48.259,9**	**80.104,6**	**166.794,1**	**100.251,8**	**151.016,5**	**229.174,0**	**12.055,0**	**222.101,4**	**249.472,6**	**105.134,8**	**17.196,3**
rice (all rice)	1.477,5	1.416,0	166,4	15,1	115,3	41,1	1.282,0	668,4	1.568,5	136,0	65,3	36,7	10,4	2.225,4	3.567,7	553,9	44,1	12,4	656,4	3,8
Barley	1,0	0,0	4,4	0,0	0,0	0,0	0,0	0,0	0,1	55,6	28,1	223,9	392,0	504,5	559,2	503,7	424,9	0,0	0,0	0,0
Corn (all corn)	2.025,8	3.046,3	4.339,2	21.003,7	1.642,9	2.628,1	2.064,6	14.310,1	15.683,7	2.170,9	40.360,1	86.158,5	4.082,9	3.043,6	4.880,8	4.752,7	106.340,6	79.749,3	28.875,8	1.321,3
Wheat	269.604,0	238.638,2	280.418,5	288.000,4	259.937,8	209.183,6	130.830,2	110.189,5	88.879,7	45.897,4	39.651,1	80.375,0	95.766,5	145.243,0	220.166,4	6.244,7	115.291,7	169.710,9	75.602,6	15.871,2
2. Fruits (Total)	**17.849,1**	**24.071,7**	**21.592,8**	**16.469,3**	**18.975,0**	**19.006,1**	**19.224,5**	**19.446,4**	**20.113,8**	**26.680,0**	**28.840,6**	**28.984,9**	**30.807,1**	**35.452,0**	**32.698,5**	**37.523,9**	**41.653,1**	**39.629,7**	**37.652,9**	**6.050,9**
Apple	10.998,8	19.820,4	16.658,3	12.592,0	15.663,3	16.100,4	15.518,5	15.833,6	16.561,3	22.958,7	25.453,2	24.339,7	25.608,7	31.034,0	28.443,5	32.382,5	35.535,7	35.537,7	35.051,9	5.809,7
Grapes	5.536,8	2.983,9	3.754,9	2.605,1	1.738,9	1.336,4	1.911,0	2.059,8	1.958,8	2.882,0	2.756,4	3.684,2	4.262,1	3.482,1	3.220,5	4.029,4	5.014,1	3.531,0	2.487,8	49,0
Peaches	1.313,4	1.267,4	1.179,6	1.272,3	1.572,8	1.569,3	1.795,0	1.553,1	1.593,7	839,3	631,0	961,0	936,3	935,8	1.034,6	1.111,9	1.103,3	561,0	113,2	192,3
3. Vegetables (Total)	**3.897,5**	**5.205,1**	**1.347,9**	**424,6**	**528,4**	**511,8**	**1.733,5**	**1.037,4**	**565,7**	**1.083,2**	**463,8**	**3.237,7**	**1.957,8**	**7.745,4**	**11.435,7**	**19.404,6**	**18.939,8**	**21.307,2**	**4.335,3**	**1.308,0**
Tomatos	1.766,1	2.530,3	711,1	144,2	270,3	353,8	467,4	536,6	304,3	368,3	114,4	873,1	708,0	2.424,0	3.387,6	5.842,2	6.943,4	6.153,2	3.843,1	1.307,7
Onion	276,3	1.085,9	108,9	116,3	0,0	0,0	227,8	21,4	0,0	569,3	310,5	1.747,3	1.174,5	5.321,1	7.758,3	13.127,6	11.812,9	14.328,5	5,2	0,1
Carrot and turnips	1.855,1	1.588,9	527,8	164,1	258,1	158,0	1.038,4	479,4	261,4	145,6	39,0	617,3	75,4	0,3	289,7	434,9	183,4	825,5	487,0	0,2
4. Tubercle and roots (Total)	**1.282,5**	**5.409,8**	**2.682,1**	**531,8**	**8.052,2**	**2.809,0**	**1.899,2**	**16.899,2**	**23.353,8**	**10.569,4**	**17.518,1**	**22.445,0**	**8.727,1**	**24.510,3**	**31.251,3**	**25.530,2**	**51.866,3**	**33.782,7**	**4.706,7**	**328,6**
Potatos	1.282,5	5.409,8	2.682,1	531,8	8.052,2	2.809,0	1.899,2	16.899,2	23.353,8	10.569,4	17.518,1	22.445,0	8.724,6	24.505,7	31.251,3	25.530,2	51.805,4	33.430,5	3.888,2	172,5
Chuño	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,5	4,6	0,0	0,0	60,9	352,3	818,5	156,1
5. Peanuts	**118,3**	**3,4**	**425,8**	**15,4**	**0,2**	**0,5**	**0,0**	**334,4**	**1.933,7**	**1.361,1**	**1.322,8**	**2.258,8**	**1.417,5**	**1.844,9**	**2.716,5**	**1.086,1**	**487,9**	**3.110,9**	**488,3**	**108,5**
6. Organo	**81,3**	**151,5**	**64,7**	**55,9**	**13,8**	**31,4**	**22,0**	**32,1**	**12,9**	**13,9**	**9,5**	**0,5**	**12,2**	**8,8**	**61,3**	**19,4**	**38,5**	**31,4**	**48,4**	**8,8**
7. Sheep meat	**0,1**	**0,2**	**0,1**	**0,3**	**0,1**	**0,0**	**0,0**	**0,0**	**0,2**	**0,0**	**0,0**	**0,0**	**2,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**

Source- Built by the author based on data from the INE

THE HUMAN RIGHT TO FOOD IN BOLIVIA

Report of an International Fact-finding Mission (2011)

Droits et Démocratie
Rights & Democracy
Centre international des droits de la personne et du développement démocratique
International Centre for Human Rights and Democratic Development

CIOEC
Bolivia

Rights & Democracy
1001 de Maisonneuve Blvd. East, Suite 1100
Montreal (Quebec) H2L 4P9 Canada
Tel: 514-283-6073 / Fax: 514-283-3792
Web: www.dd-rd.ca

Rights & Democracy is a non-partisan, independent Canadian institution cre-ated by an Act of Parliament in 1988 to promote democratic development and to advocate for and defend human rights set out in the International Bill of Human Rights. In cooperation with civil society and government in Canada and abroad, Rights & Democracy initiates and supports programmes to strengthen laws and democratic institutions, principally in developing countries.

Coordinadora de Integración de Organizaciones Económicas Campesinas de Bolivia

Calle Beni # 285, esquina Departamento Pando (Zona Challapampa - Terminal de Buses de La Paz) Casilla 11156, La Paz, Bolivia Tel / fax: (591-2) 214-5050
Web: www.cioecbolivia.org

The Coordinating Network for Rural Economy Organizations in Bolivia (CIOEC Bolivia) is an institution that brings together the associations of peasant and indigenous producers in Bolivia. CIOEC Bolivia represents small producers en-gaged in sustainable production and economic development of the rural sector in order to achieve food sovereignty.

© Rights & Democracy (International Centre for Human Rights and Democratic De-velopment), 2011

This report may be freely excerpted, provided credit is given to Rights & Democracy.

Ce rapport est aussi disponible en français.

Este documento está disponible en español.

Mission coordination: Lauren Ravon, Rights & Democracy

Report writing: Carole Samdup, Rights & Democracy

Translation: Mireille Bonhomme, Jorge Carrigan

Cover Photo: Heather J. Nelson

ISBN: 978-2-923539-53-9

Printed in Canada

Legal Deposit: Bibliothèque et Archives nationales du Québec, 2011

National Library of Canada, fourth quarter, 2011

TABLE OF CONTENTS

ACRONYMS

ACOBOL	Association of Councillors and Mayors of Bolivia (Asociación de Concejalas y Alcaldesas de Bolivia
AIPE	Association of Institutions for the Promotion and Education in Bolivia (Asociación de Instituciones de Promoción y Educación Bolivia)
APG	Assembly of the Guarani People
APROCOP	Association of Pocoata potato (oca) producers (Asociación de productores- de oca de Pocoata)
BID	Inter-American Development Bank
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CEDLA	The Centre for the Study of Labour and Agriculture (El Centro de Estudios- para el Desarrollo Laboral y Agrario)
CELADE	Latin American and Carribbean Centre for Demographics (Centro Latinoamericano y Caribeño de Demografía)
CESCR	UN Committee on Economic, Social and Cultural Rights
CIDOB	Federation of Indigenous Peoples of Bolivia (Confederacion de Pueblos Indigenas de Bolivia)
CIOEC	(Coordinadora de Integracion de Organizaciones Economicas Campesina de Bolivia)
CIPCA	Centre for Research and Promotion of the Peasantry (Centro de Investigación y Promoción del Campesinado)

CONAMAQ	National Council of Ayllus and Marcas Qullasuyu (Consejo Nacional de Ayllus y Markas del Qullasuyu)
CONAN	National Council on Food and Nutrition (Consejo Nacional de Alimentacion y Nutricion)
CRC	Convention on the Rights of the Child
CSO	Civil Society Organizations
CSUTCB	Confederation of Rural Labour of Bolivia (Confederacion Sindical Unica de Trabajadores Campesinos de Bolivia)
DdP	Office of the Ombudsman (La Defensoría del Pueblo)
EMAPA	State Company to Support Food Production
ESCR-Net	International Network for Economic, Social and Cultural Rights (Red Internacional para los Derechos Económicos, Sociales y Culturales)
EU	European Union
FAM	Federation of Municipal Associations of Bolivia (Federación de Asociaciones Municipales de Bolivia (FAM)
FAO	UN Food and Agriculture Organization

MESSAGE FROM THE UN SPECIAL RAPPORTEUR ON THE RIGHT TO FOOD

As we enter 2011, more than a billion people suffer from persistent hun-ger and chronic malnutrition. These are man-made phenomena and they have a lifetime impact on individual health and community develop-ment. This silent tragedy occurs daily in a world overflowing with riches.

Today I send my best wishes and encouragement to the delegation of Bolivian and international experts as they begin a fact-finding mission to better under-stand the face of hunger in Bolivia. The mission is important because it will highlight the ways in which the human rights framework can provide practi-cal assistance to states as they implement strategies to eradicate hunger within their jurisdictions. I am confident that the mission findings will be a useful contribution to our common struggle.

I look forward to reading the mission report and to discussing its final conclu-sions and recommendations with a representative of your delegation. I have no doubt that these findings will also be useful to the Bolivian authorities, with whom I hope to pursue exchanges about the results of the mission, in a spirit of constructive dialogue and cooperation. Until then, be assured that my thoughts and best wishes are with you.

In solidarity,

Olivier De Schutter

United Nations Special Rapporteur on the Right to Food

February 5, 2011


BOLIVIA
PANDO
BENI
LA PAZ
COCHABAMBA
SANTA CRUZ
ORURO
POTOSÍ
CHUQUISACA
TARIJA
PERU
BRASIL
CHILE
PARAGUAY
ARGENTINA
Cobija
Guajará Mirim
Riberalta
Asunción
Puerto Heath
Reyes
Santa Ana
Magdalena
Apolo
San Borja
Trinidad
Loreto
Puerto Acosta
Caranavi
Ascención
Concepción
San Ignacio
Las Petas
La Paz
Viacha
Guaqui
Santa Rosa del Sara
Cochabamba
Montero
Santa Cruz
San José de Chiquitos
Oruro
Putre
Aiquile
Roboré
Puerto Suárez
Sucre
Tarabuco
Potosi
Camiri
Uyuni
Villa Montes
Tarija
Villazón
La Quiaca
Yucuiba
Antofagasta
Abuna
Madre de Dios
Beni
Madidi
Yata
Mamoré
Cautário
Guaporé
Iténez
Lago Rogaguado
Lago Huaitumas
Lago Rogagua
Yacuma
Apere
Lago de San Luis
San Miguel
San Martin
Paraguá
Ichoa
Grande (Guapay)
Piray
Quiquibey
undefinded
Cordillera Real
Cordillera Oriental
Cordillera Central
Cordillera Occidental
Altiplano
Lago Titicaca
Lago Poopó
Salar de Coipasa
Salar de Uyuni
Pilcomayo
Laguna Concepción
Laguna Uberaba
Laguna Mandioré
Bañados del Izozog
Gran Chaco
Desaguadero
Lattica
10°
14°
18°
22°
64°
60°
68°
National capital
Departmental capital
Town, village
Major airport
International boundary
Departmental boundary
Pan American Highway
Main road
Railroad
0 100 200 300 km
0 100 200 mi
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

INTRODUCTION

Almost a billion people around the world experience hunger every day. This is more than before the food price crisis of 2008 and significantly higher than when hunger-reduction targets were set during the World Food Summit in 1996. Those targets envisioned a reduction, by half, in the number of hungry people by 2015. Not only is the international community failing to achieve its modest goal, it is now confronting a setback that compels us to ask where we have gone wrong.

Bolivia is a country that boasts a government dedicated to social advancement. It also enjoys increasing state revenues from oil and gas and enough productive land to feed its population. And yet, the United Nations reports that Bolivia still records the highest level of hunger in South America. Rights & Democracy hopes that this report will offer some useful reflections on the causes of hunger in Bolivia and about how a human rights perspective might offer some solutions.

The assessment mission to Bolivia was the fourth in a series undertaken by Rights & Democracy. The goal of the mission series was two-fold: first, to assess hunger and food insecurity in Bolivia from the human rights perspective; and sec-ond, to make practical recommendations for both government and civil society.

This report was written as a collaborative effort. Deepest appreciation is ex-tended to the members of the mission delegation and their organizations, both international and national. We wish especially to acknowledge the contribution of our partner organization, the Coordinadora de Integracion de Organizaciones Economicas Campesina de Bolivia (CIOEC), without whom the mission could not have taken place. We also extend sincere thanks to Fundacion Tierra which coordi-nated the Santa Cruz site visit and to the Instituto de Formacion Femina Integral which organized the Cochabamba site visit. The Right to Food Unit at the UN Food and Agriculture Organization (FAO) provided technical support to the mission.

Members of the assessment mission wish to extend their special thanks to the many individuals and communities interviewed during our time in Bolivia. Their generosity and insights have inspired this report. Rights & Democracy sincerely hopes that the mission results will serve as a useful contribution to the valuable work already being done by the Government of Bolivia, its international partners and the many civil society organizations engaged in the service of their country.

MISSION OVERVIEW

An international fact-finding mission visited Bolivia from February 5-14, 2011. The mission was the fourth in a series of country studies undertaken by Rights & Democracy as a means of promoting the advantages of a human rights frame-work for the eradication of hunger[171]. The mission was undertaken in cooperation with the CIOEC[172].

Mission objectives were to assess hunger and food insecurity in Bolivia from a human rights perspective and to make recommendations for policy and program development. This included attention to issues of governance structures (laws, policies and institutions), access to land, and budget allocations. The mission delegation was comprised of representatives of both national and international organizations. The full list of mission delegates and interviews is provided as an annex to this report.

Site Visits, Interviews and Public Engagement

The mission consisted of three elements: site visits to communities affected by hunger in Potosi, Cochabamba and the Chaco region of Santa Cruz; interviews with representatives of government ministries, donor and UN agencies, international financial institutions, social movements, and civil society organizations in La Paz; and a public seminar in collaboration with the *Defensoría del Pueblo* where preliminary findings of the mission were presented.

Site visit to Potosi

The site visit team visited communities in the northern region of the depart-ment of Potosí, specifically in the municipalities of Llallagua, Colquechaca, Pocoata and Macha. This region is one of the poorest in Bolivia with high rates of child malnutrition. The land is arid and rocky and the weather conditions are harsh. The primary objective of this site visit was to assess whether the communities were benefiting from national agricultural support programs and social services. In Llallagua, the team met with representatives of the mining cooperatives at the *Mina Siglo XX* and with widowed women working outside the mine, known as *palliris*. In Pocoata, the team had the opportunity to speak with many women selling food in the town market and to meet with members of the Municipal Council (*Consejo Municipal*). In the municipality of Colquechaca, the team met with the Mayor and members of the Municipal Council (*Consejo Mu-nicipal*), visited the municipal health center (*Unidad de Nutricion Integral – UNI*) and met with men, women and children in the small rural communities of Pati Pati and Tamy Kuri. The visit ended with interviews at the largest agricultural fair in the region, the *Feria de Pampa Colorada*.

Site visit to Cochabamba

The team visited four communities in the municipality of Tapacari in the moun-tainous western region of the Cochabamba department: Antakahua, Palcoma, Chaupirancho, and Kjarkjas. The objective of the site visit was to meet with families and village associations in isolated communities in order to

---

171 See reports of previous missions to Malawi, Nepal and Haiti at www.dd-rd.ca

172 The mission was organized and funded by Rights & Democracy. CIOEC provided in-country expertise, coordination, and advisory services.

learn how social and agricultural support programs in the area have improved sustainable access to adequate food. Meetings with the communities were facilitated by the indigenous organization de *Consejo Nacional de Ayllus y Markas del Qollasuyu* (CONAMAQ). The delegation also visited the largest regional market fair in Confital where informal interviews were held with local farmers who use a bartering system to exchange local products. Finally, the delegation met with Isabel Dominquez Meneces, a former member of the constituent assembly who now runs a boarding school for children in the area (*Internado de jovenes de Pongo)*.

Site visit to Santa Cruz

The site visit team visited Guarani indigenous communities in the Chaco region of Santa Cruz including Karaparacito, San Isidro and Yaiti in Alto Parapeti. These communities were among the first to benefit from Bolivia's land reform policy which has prioritized the return of land to indigenous people who for generations had been working the land in conditions of servitude. Santa Cruz is characterized by large agro-industrial estates as well as substantive oil and gas reserves. The primary issues addressed during this site visit were land reform, access to national programs and budget execution at the municipal level. The delegation also met with officials of the local office of the National Institute for Agrarian Reform (INRA)[173], local civil society representatives and indigenous leaders including the local *Capitania*, the Assembly of the Guarani People (APG) and the *Confederación de Pueblos Indígenas de Bolivia* (CIDOB).

Interviews with officials in La Paz

The mission members met with a range of stake-holders in Bolivia's capital city, La Paz.[174] Meetings with government officials including the Ministers of Jus-tice, Rural Development, Finance, Planning and Health as well as the heads of national institutions such as the National Council for Food and Nutrition (CONAN)[175], *Defensoría del Pueblo*, the State Company to Support Food Production (EMAPA)[176] and INRA. In La Paz, mission members were fortunate to also meet with representatives of the United Nations in Bolivia, including the Office of the High Commissioner for Human Rights, the World Food Program (WFP), the FAO, and with representatives of international financial institutions including the World Bank and Inter American Development Bank (IDB). Among do-nor countries, the delegation met with representatives of the governments of Canada, the European Union (EU), and Spain. Additional meetings were organized with local and international non-governmental organizations (NGO).

Civil Society Seminar

At the conclusion of the fact-finding mission, the delegation hosted a public seminar in La Paz in collaboration with *La Defensoria del Pueblo*. The purpose of the seminar was to disseminate preliminary findings of the mission and to en-courage discussion about the usefulness of the human rights framework for ad-dressing persistent hunger in Bolivia and for taking concrete actions to confront challenges related to the recent rise in food prices. A delegate of each site visit team shared

[173] Sp. Instituto Nacional de Reforma Agrarian.
[174] See Annex 3.
[175] Sp. Consejo Nacional de Alimentación y Nutrición
[176] Sp. Empresa de Apoyo a la Producción de Alimentos

highlights of the experience and representatives from Rights & Democracy and CIOEC presented the preliminary findings of the mission. More than 80 people attended the seminar.

The seminar featured presentations by a representative of the Minister of Ru-ral Development and a keynote address from the *Defensor del Pueblo de Bolivia*, the Honourable Dr. Rolando Villena. In his presentation, Dr. Villena called for a renewed focus on rural development in Bolivia based on traditional prac-tices and in conformity with Article 405 of the Constitution. Dr. Villena said:

> Bolivia provides the example of a country which has recognized the right to food in its constitution and harmonized it with the rights of indigenous peoples. Together they constitute important pillars upon which to develop food and nutrition policies contained within the National Development Plan[177].

Following the presentations, a lively discussion took place among seminar participants regarding the appropriate role of the state in national food production, and the challenges of ensuring state accountability for right to food violations.

The delegation presents preliminary findings during a public seminar held at the Defensoria del Pueblo on February 14, 2011. PHOTO CREDIT: Rights & Democracy.

"The rights-based approach is far from being merely a theory or an ideal. It is utterly practical: the non-realization of human rights is not only a frequent result of poverty but also one of its major causes, which means that working to realize these rights is vital for combating poverty[178]

[177] Unofficial translation. Original Spanish is as follows: Bolivia es un ejemplo por reconocer constitucionalmente la inclusión del derecho a la alimentación y la armonización entre los derechos de los pueblos indígenas que constituyen pilares importantes para desarrollar las políticas de alimentación y nutrición del Plan Nacional de Desarrollo.

[178] The Right to Food in Practice - Implementation at the National Level, FAO, 2006, p.3

METHODOLOGY

When the United Nations Charter was adopted, it called upon nations to "pledge universal respect for and observance of human rights" (Article 55). Further it required that states take "joint and separate action" to implement those rights. Subsequently, the United Nations adopted in 1948, the Universal Declaration of Human Rights as a statement of principles which were soon protected in international law by two governing covenants – the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR).

The ICESCR recognizes the right to an adequate standard of living, including the right to food which is described as the right to be "free from hunger." One hundred and sixty states are currently party to the ICESCR, representing an international consensus upon which cooperation between states can be built[179].

In 2004, the FAO adopted the *Voluntary Guidelines to Support the Progressive Realization of the Right to Adequate Food in the Context of National Food Security* (The Guidelines)[180]. The Guidelines offer a practical tool to assist states as they develop programs and policies designed to implement their right to food commitments pursuant to the ICESCR. Since adopting the Guidelines, the FAO has elaborated a companion "toolbox" of methodological manuals including most notably the *Guide on Elaborating Framework Law for the Right to Food,* the *Guide to Conducting a Right to Food Assessment* and *Budget Work to Advance the Right to Food.*[181]

All human rights are governed by an over-arching set of common principles: human rights are universal and should be enjoyed without discrimination; human rights are indivisible, interdependent and inter-related; states are accountable for human rights implementation and must ensure access to effective remedies when human rights violations occur.

Following the World Food Summit in 1996, the UN Committee on Economic, Social and Cultural Rights (CESCR), a treaty monitoring body, was mandated to further articulate the human right to food by means of a "General Comment." Although general comments are not legally binding, they are considered to be authoritative interpretations of specific rights or principles governing rights. General Comment 12 was adopted by the UN Commission on Human Rights in 1999.

The General Comment provided a typology for monitoring the different levels of state obligations under the ICESCR[182]. The typology – to *respect*, to *protect* and to *fulfil* - is now generally applied to all economic, social and cultural rights. The obligation to *respect* refers to the state's commitment not to undermine enjoyment of human rights either through action or failure to act; the obligation to *protect* requires the state to ensure that persons living within its jurisdiction do not suffer human rights violations at the hands of non-state actors; the obligation to *fulfil* requires the state to provide a legal and institutional framework to ensure that rights can be effectively enjoyed in practice (to facilitate, and in cases of natural disaster or emergency to provide).[183]

---

[179] For a list of ratifications, see: http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-3&chapter=4&lang=en

[180] To consult the Guidelines: http://www.fao.org/righttofood/en/highlight_51596en.html

[181] See the toolbox at www.fao.org/righttofood/publi_02_en.htm

[182] See Asbjorn Eide, The Right to Adequate Food and to be Free from Hunger, Updated study on the right to food, Sub-Commission on Prevention of Discrimination and Protection of Minorities, UNCHR 51st session, doc

[183] E/CN.4/ Sub.2/1999/12, 1999.

Maximum Available Resources and Progressive Realization

Article 2 of the ICESCR affirms that each state party must undertake steps "...to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the present Covenant…". Although these principles are sometimes understood as limitations on state responsibility, the CESCR offers some guidance in its General Comment 12. The CESCR reminds states that as parties to the covenant, they have an immediate obligation to take concrete steps to "move as expeditiously as possible" towards realization of the right to food.[184] Moreover, these steps taken must be non-discriminatory in nature and in their application.

Progressive realization can be understood both as a concept for evaluating out-comes of steps already taken or as a benchmarking tool for the sequencing of new policies and programs. The ICESCR explains that realization of the right to food should progress in accordance with *the maximum of available resources*. In simple terms, increased state revenue should result in improved or expanded programs to end hunger and in a reduction in the number of hungry people. Even without revenue increases, however, the first obligation of states is the implementation of human rights and budget choices should be made accordingly.

Human Rights Indicators

Standard development indicators are insufficient for the measurement of human rights. Human rights indicators are not limited to the measurement of aggregate outcomes – for example, the number of hungry people or the number of landless farmers. Instead, they emphasize both structural and process inputs and they require disaggregated data to describe outcomes.

Structural inputs refer to the legal, policy and institutional infrastructure (frame-work) of the country. For example, are the rights of indigenous peoples protected in the national constitution? Does the government have a national food security policy? S*tructural* indicators also include attention to corresponding governance institutions such as national human rights institutions, courts or ombudsmen.

Efforts to track how structural inputs are implemented require *process* indicators, or flow indicators. They reflect the indivisibility of rights by monitoring civic participation, access to remedy and non-discrimination. For example, how do individuals and groups access information about food security programs in Bolivia? Process indicators also illustrate progressive realization. Once land reform legislation was enacted, what steps did the government take to implement the legislation? Did it allocate a sufficient budget for implementation? Did it establish a monitoring process to identify violations and ensure remedy?

The purpose of human rights *outcome* indicators is to monitor the results of structural and procedural inputs. They capture the degree of enjoyment of the right at a particular moment. On their own, however, outcome indicators (for example, the number of hungry people) do not provide information about human rights progress because they do not address the conditions in which the outcome was

[184] It is helpful to read General Comment 12 in relation to other general comments issued by the CESCR. General Com-ment 2 on International Technical Assistance, General Comment 3 on the Nature of State Obligations, General Com-ment 9 on Domestic Application of the Covenant and General Comment 15 on the Right to Water are available on the website of the Office of the High Commissioner for Human Rights at www.ohchr.org/english/bodies/cescr

achieved. Moreover, outcome indicators must be disaggregated according to vulnerabilities so that conclusions about discrimination can be drawn.

Operational Procedure

There are many useful and clear guides on how to conduct a thematic or country assessment including numerous academic papers on the use of indicators, the *FAO Guide to Conducting a Right to Food Assessment* and the excellent training manual for human rights monitoring produced by the Office of the High Com-missioner for Human Rights[185].

This assessment mission on the right to food in Bolivia based its procedural approach on lessons learned from the experiences of previous similar missions. The substantive approach relied heavily on General Comment 12 on the Human Right to Food. For example, in the pre-mission development of guiding questions for interviews, attention was given to the normative principles of the right to food (adequacy, accessibility, availability/sustainability) in their relation to the different levels of state obligation (respect, protect, fulfil). The questions developed were reviewed and adjusted as the mission proceeded. Delegation members attempted throughout to apply the over-arching human rights principles of universality, indivisibility, and accountability. Despite the methodological challenge this approach naturally entailed, common observations did evolve from the process although these were primarily qualitative in nature.

Interviews were conducted with affected communities that had made reports to local organizations about particular violations or threats to the enjoyment of their human right to adequate food. Situation-specific questionnaires were developed during a pre-mission workshop in La Paz and interviews were scheduled in advance by local partner organizations. Site visits discussions were con-ducted in Spanish or indigenous languages with interpretation to Spanish.

Although the interview and follow-up questions differed between site visits according to context, the basic research methods used remained the same. Interviews with communities called upon individuals to describe their situation in their own words and to introduce issues they felt were most relevant to human rights and food insecurity. Interviews with government and international agency officials sought to clarify information obtained during site visits and to better understand the challenges from the perspective of duty bearers.

Some of the facts and figures provided in this report were obtained through on-line research and post-mission inquiries. With the time and resources available, it was not possible to verify all points of view with the people who expressed them and therefore comments have not generally been attributed to specific individuals.

[185] General Comment 12, "The right to adequate food (Art. 11),"CESCR, Geneva, 20th session, 1999, para 14
Training Manual on Human Rights Monitoring, Office of the High Commissioner for Human Rights, 2001. www.ohchr.org/english/about/publications/docs/train7_a.pdf

HUMAN RIGHT TO FOOD IN BOLIVIA

The Plurinational State of Bolivia is the fifth largest country in South America with a population of almost ten million[186]. Approximately 62% of the population identifies itself as indigenous, making it the country with the highest proportion of indigenous peoples in the Americas.[187] Bolivia is comprised of almost 40 different ethnic groups and the New Political State Constitution (NCPE), adopted in 2009, recognizes 38 official languages including Spanish.

Bolivia is divided into nine administrative units or departments (*departamentos*): Beni, Chuquisaca, Cochabamba, La Paz, Oruro, Pando, Potosi, Santa Cruz and Tarija. Geographically, the country is divided almost perfectly along a north-west by southeast axis by a series of large mountain ranges. The western half of this axis is dominated by impressive peaks, some higher than 6000 metres, and extensive rugged highlands and valleys. The climate in this part of the country is semi-arid and cool. The eastern half of this axis comprises lowland plains of the Amazon basin as well as the Chaco region with its rolling hills and dense forests and a climate varying between tropical and humid to more savannah-like. Most of Bolivia's petroleum and natural gas reserves are found in this eastern half of the country.

A New Political Context

Bolivia's history since independence in 1825 has been marked by coups, dictatorships, massive social protest and economic dependence. The last ten years have been particularly iconic and have resulted in two significant events: the election of the Movement toward Socialism (MAS) party to a majority government headed by President Evo Morales in 2005; and the adoption by referendum of the *New Political Constitution of the State* (NCPE) in 2009. Evo Morales is the first indigenous president in Bolivia's history, and his election marks an historic moment for the country's indigenous majority which has long endured discrimination and marginalization.

Among Morales' first actions as president was to convene, in 2006, a Constituent Assembly to draft the new constitution. The Government of Bolivia (GoB) has been heralded internationally for making the process highly participative across various sectors of Bolivian civil society. In January 2009 the NCPE was finally adopted with 60.4% of the people voting in its favour.[188] In December 2009, Evo Morales' was re-elected as president by a wide margin as his MAS par-ty achieved a two-thirds majority in both the Senate and Chamber of Deputies.

---

[186] 9.862 million, United Nations Population Division. 2009. http://data.worldbank.org/country/bolivia?display=graph

[187] CELADE, Centro Latinoamericano y Caribeño de Demografía, División de Población de la CEPAL Fondo indígena, 2008. http://www.risalc.org/portal/indicadores/ficha/?id=20. It is difficult to distinguish between indigenous and non-indigenous in Bolivia. The NCPE refers to "Indígena Originario Campesino" as a comprehensive term that includes all nations and peoples who were present in Bolivia before the colonial era and who may now claim specific collective rights as described within the NCPE. The "campesinos", or peasant farmers, are not conceived as part of this group although on an individual basis, they are often of indigenous origin.

[188] Corte Nacional Electoral. "Referéndum Nacional Constituyente 2009". http://www.cne.org.bo/ResultadosRNC2009/wfrmDirimidor.aspx

International treaty commitments

Bolivia has signed and ratified core international and regional human rights instruments including the two International Covenants, the ICCPR and the ICESCR. It has signed the Optional Protocol (OP) to the ICESCR and recent-ly announced its intention to ratify.[189] Other agreements ratified by Bolivia include the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), the Convention on the Rights of the Child (CRC) and the International Labour Organization (ILO) Convention 169 on Indigenous and Tribal Peoples. At the regional level, Bolivia is a member of the Organization of American States and a party to the San Salvador Protocol of the American Convention on Human Rights[190].

With respect to international trade, the MAS has been critical of bilateral and regional free trade agreements but has nevertheless negotiated trade cooperation agreements with Cuba, Venezuela and most recently with Mexico. Bolivia is a member of the World Trade Organization, the Andean Pact, and an associate member of Mercosur, the common market agreement between Brazil, Argentina, Paraguay and Uruguay.

Hunger and vulnerability

According to the UNDP Human Development Report 2010, Bolivia is classified as a medium-developed-country, ranking 95th of 166 countries surveyed for the report.[191] When the MAS assumed power in 2006, Bolivia ranked 113 out of 177 countries. Despite this improvement, Bolivia is still amongst the poorest countries in the Latin American and Caribbean (LAC) region with an estimated 56% of the population living below the national poverty line and 33% living in extreme poverty. Furthermore 12% of Bolivians survive on less than US$1 per day.[192] The highest concentrations of poverty are found in rural and indigenous communities.

Bolivia has not made significant progress in overcoming hunger during the past two decades. According to data published by the FAO, 24% of the total population was undernourished in 1992. Ten years later, in 2002, the percentage had decreased to 22% but by 2007 it had risen again to 27%. In actual numbers the 2007 figure represents approximately 2.5 million people, an increase from 1.9 million in 1992[193]. The hungry are highly concentrated in the western and south-ern parts of the country (Potosí, Chuquisaca, Beni and Pando) and especially in the most remote rural communities.

---

[189] The OP provides an international complaint mechanism when access to justice is denied or otherwise not available at the national level. For more information, see www.escr-net.org/resources/resources_show.htm?doc_id=431553

[190] This protocol explicitly protects ESCRs including the right to food. The full treaty can be found at www.oas.org

[191] The Changes behind the Change: Inequalities and Social Mobility in Bolivia, Synopsis, National Human Development Report, UNDP, 2010, p.6. http://idh.pnud.bo/usr_files/informes/nacional/INDH2010/capitulos/sinopsis%20english.pdf

[192] http://apps.who.int/nutrition/landscape/report.aspx?iso=bol

[193] All data sourced from FAO statistics division, Rome. FAOSTAT (2010): http://www.fao.org/economic/ess/ess-publications/ess-yearbook/ess-yearbook2010/yearbook2010-welfare/en/

Information received during the mission interview with the World Food Programe (WFP) office in La Paz indicates that increased food prices in 2010 hampered government efforts to curb persistent hunger in Bolivia. WFP surveys shared with the mission delegation show that the cost of food increased at a significantly higher rate than other prices in Bolivia due in part to floods and drought during the first part of 2010. Basic food products, including wheat flour, sugar and maize, increased more than 40% over the previous year. According to the WFP, such increases have reduced the amount of food consumed by families in vulnerable municipalities, both rural and urban.

The Government of Bolivia has made laudable efforts to resolve such difficulties and to uplift traditionally excluded groups, particularly women and indigenous peoples. Still, Bolivia remains one of the most unequal countries in the LAC region in terms of gender, ethnicity and place of residence (rural versus urban). Inequality has meant that hunger is more prevalent among indigenous communities, afro-Bolivianos and the rural poor. Within these communities, children under the age of five are most at risk from deprivation. World Health Organization (WHO) 2008 figures indicate that 27.2% of children under the age of five suffer from chronic malnutrition in Bolivia compared to 15.8% re-gionally in LAC[194]. According to the World Bank, an estimated 80% of children between six and twenty-three months of age suffer from anaemia[195]. Among chil-dren, a distinct gap exists between indigenous and non-indigenous with 28% of indigenous children experiencing chronic malnutrition compared with 16% of non-indigenous children[196].

Economic renewal leads to increased state revenue

When the MAS first assumed power in 2006, the Bolivian economy suffered high levels of debt and was dependent on foreign aid. In June 2006, the government announced a program of economic reform and launched a five-year national development plan which anticipated an increase in GDP to 7.6% by 2007 as well as a 50% reduction in the percentage of Bolivians living in poverty and zero malnutrition for children under the age of two[197].

As a cornerstone of the economic reform package, foreign-owned oil and gas companies were subjected to a new royalty and tax system, known as the *Direct Tax on Hydrocarbons* (IDH), amounting to 50% of production value. As a result, state revenues from hydrocarbons increased to US$ 1.3 billion in the first year alone, more than quadrupling 2004 levels and doubling 2005 levels[198]. The IDH has provided an enormous amount of extra resources and has significantly increased the capacity of the central government to undertake social programming, including for the realization of economic and social rights. At the same time, however, distribution of these resources to departments and

---

[194] http://apps.who.int/nutrition/landscape/report.aspx?iso=bol

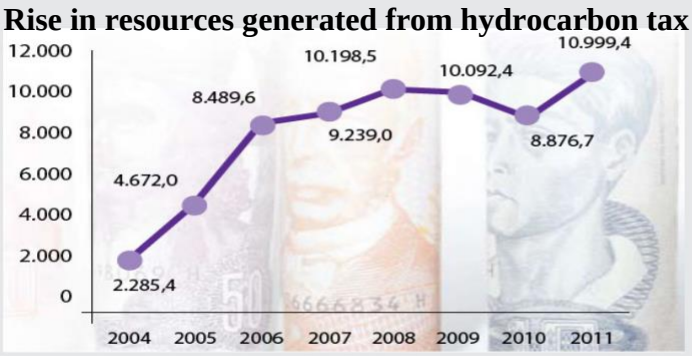
[195] Bolivia: Towards a new social contract, a country social analysis, World Bank, 2006 at http://siteresources.worldbank.org/BOLIVIA/Resources/Bolivia_CSA_Report.pdf

[196] Report of the Special Rapporteur on the right to food, Jean Ziegler: Mission to Bolivia 2008, Human Rights Council, United Nations, January 2008, p.5.

[197] Programa desnutrición www.conan.gov.bo

[198] Mark Weisbrot and Luis Sandoval, The Distribution of Bolivia's Most Important Natural Resources and the Autonomy Conflicts, January 2009, p.2 at www.cepr.net/documents/publications/Bolivia-hydrocarb-update-2009-01.pdf

municipalities has been an ongoing source of conflict between the central government and the oil and gas producing departments. The amount of IDH revenue transferred directly to the department and municipal (sub-national) levels of government is increasing year by year.



Source: Fundación Jubileo[199]

Available resources also increased because of a significant drop in external debt, both as a percentage of GDP and as a number figure. Shortly after adopting its economic reform policy in 2006, the GoB succeeded in negotiating significant debt relief from both the World Bank and Inter-American Development Bank (IDB). In 2003 Bolivia's external debt peaked at 95.4% of the GDP amounting to US$ 7.7 billion. The most recent statistic from 2008 shows a drastic reduction to 35.5% of the GDP representing a much reduced dollar figure of US$ 5.8 billion[200]. This opened the doors for negotiation of new loan agreements from the international financial institutions in support of development projects proposed in the five-year development plan - primarily road infrastructure, irrigation and electricity.

The delegation noted that development assistance to Bolivia has also increased in recent years – despite the fact that the government's own revenues have significantly improved to the extent that it is now classed as a middle-income country. The total annual amount of development assistance received in 2009 was US$ 725.85 million, compared with US$ 643.06 in 2005.[201] According to representatives of donor agencies interviewed in La Paz, the justification for increases is the growing disparity between rich and poor in the country. In fact, government statistics report the gini-coefficient in rural areas measures 0.64 while in urban centres it is 0.57[202].

[199] www.jubileobolivia.org.bo
[200] ECLAC 2009 Statistical Yearbook for Latin America and the Caribbean, http://websie.eclac.cl/anuario_estadistico/anuario_2009/eng/
[201] http://stats.oecd.org
[202] National Institute of Statistics of Bolivia, 2008.

Impact of climate change

Bolivia is one of the most bio-diverse countries in the world and home to 20% of its tropical glaciers. The topology of Bolivia is also diverse comprising Andean mountain ranges, Amazon jungle and the Chaco desert. In recent years, Bolivia has experienced increased incidents of natural disaster linked to climate change[203]. The loss of glaciers has had an impact on weather patterns resulting in shorter rainy seasons, soil erosion and desertification.

The 2010 drought has had a devastating effect on food production in remote communities. In Potosi for example, communities interviewed by the mission delegation reported that approximately 40% of their potato production had been lost during this growing season. In Santa Cruz, community representatives emphasized that crop loss due to drought would have impacts far beyond 2010. They explained that without a harvest there are no seeds for the following year. They questioned whether or not small-scale agriculture would ever again be viable in Bolivia. During the 2010 drought many indigenous and small farmers had actually sold their animals, abandoned their fields, and migrated to urban centres for work[204].

In response to climate change, on April 20, 2011 (after the mission) the Government of Bolivia adopted legislation that places the rights of nature on an equal pedestal with human rights. The *Law of Mother Earth* is the first such legislation anywhere in the world. Yet questions are already raised about its consistency with other government initiatives. For example, only two days earlier the government had announced that it would reactivate more than 4000 mines lying idle across the country. This followed an announcement that cash incentives would be given to companies that discover new hydrocarbon deposits.

Positive Steps: Political Commitment to End Hunger

Since coming into power, the MAS government has moved forward with an ambitious plan to reduce disparity and end poverty in Bolivia. For example, the new constitution includes a range of human rights protections including the human right to food. This political commitment is complemented by a wide-ranging suite of policies and programs designed to end hunger in the country. Moreover, Bolivian representatives have been outspoken and distinguished advocates of human rights within the United Nations system - most notably in support of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP). This section of the report describes laws, institutions and policies which the delegation felt best illustrate the positive steps taken by the Government of Bolivia to promote and defend the human right to food.

National legislation

The 2009 constitution defines Bolivia as a “multinational state made up of in-digenous groups”. As such it promises a stronger voice for indigenous people and their institutions, assigns new

---

[203] Climate Change, Poverty and Adaption in Bolivia, Oxfam International, 2009 http://www.oxfam.org/sites/www.oxfam.org/files/bolivia-climate-change-adaptation-0911.pdf

[204] Farmers Abandon Land as Drought Spreads Hunger, World Food Program media release, Sept.1, 2010. http://www.wfp.org/stories/drought-bolivia-drives-farmers-their-fields

responsibilities at the departmental and municipal levels, and creates new indigenous autonomous areas. Importantly, the constitution contains no less than 16 references to food in various articles related to food security, food sovereignty, the human right to food, and models of agricultural production. Specifically on the right to food, Article 16.1 states that "Everyone has the right to food and to water"[205]. Further commitment is provided in Article 16.11, "The state has the obligation to guarantee food security, comprising a diet that is healthy, adequate and sufficient for the whole population"[206].

Given the far-reaching changes between the old and new constitution, the Na-tional Congress of Bolivia (parliament) is now tackling the daunting task of drafting and adopting legislation to enforce the new guarantees. Significant progress has been made and five structural laws ("leyes estructurales") have been adopted. The Autonomy and Decentralization Law (Ley Marco de Auto-nomias y Descentralizacion); the Law Establishing the Constitutional Court (Ley del Tribunal Constitucional Plurinacional); the Judicial Framework Law (Ley del Organo Judicial); the National Electoral Law (Ley del Organo Electoral Plurinacional); and the Electoral Regime Law (Ley del Regimen Elector-al). In 2010, the state adopted a series of "social security" laws related to safety nets including pensions. Stated objectives for 2011 prioritize "economic" laws which will address regulation of the economy and national production. Food security, conceived as an issue of production, is included within this category.

A Draft Bill on the Human Right to Adequate Food has been debated though it has not yet received substantial support from the MAS or the country's main social movements. A Draft Bill on Food Sovereignty has received more attention and is championed by the Ministry of Agriculture but it does not provide mechanisms of accountability, a key dimension of the human rights framework. Nor does it create mechanisms for protection of the most vulnerable. Certain indigenous organizations supported the Draft Bill on a Productive Decade (re-named the Community Production Revolution Bill and adopted in June 2011) which foresees government support for agriculture given directly to communities rather than to private entities or cooperatives alone.

Within the ensemble of national laws designed to improve secure access to adequate food in Bolivia, the 2006 law on land reform reflects an important commitment of the state to rectify injustices of the past. The law, which extends 2006 legislation to 2013, differentiates rural land from urban in terms of its purpose, regulation and administration. The law requires that rural land provide a social or economic function, that it provide employment respectful of labour rights, and that it adhere to the established ceiling regulation of 5000 hectares. In this way, the state has taken important steps to ensure that agricultural land remains a productive resource for the people of Bolivia.

[205] Translated from the original Spanish: "Toda persona tiene derecho al agua y a la alimentación"
[206] Translated from the original Spanish: "El Estado tiene la obligación de garantizar la seguridad alimentaria, a través de una alimentación sana, adecuada y suficiente para toda la población"

Autonomy and Decentralization

The process of decentralization and the creation of autonomies within the Bolivian state began in 1994 when the government launched an ambitious program including transfer of funds to sub-national levels of government with a requirement that local civic organizations participate in spending decisions. In 1995, the Administrative Decentralization Law was adopted increasing autonomy to Bolivia's nine departments although key officials were still appointed by the central government.

In May and June of 2008 – in part as a protest against the MAS policy of indigenous empowerment - the departments of Santa Cruz, Beni, Pando and Tarija held referendums on the question of departmental autonomy. While the majority in each department voted in favour of autonomy, the results were deemed invalid and unconstitutional by the government with the Organization of American States (OAS) siding with the central government[207]. Nevertheless, the 2009 constitution includes provisions to decentralize even more power and resources to the departments, municipalities and indigenous autonomies. Accordingly, in 2010 the Framework Law for Autonomy and Decentralization (*Ley Marco de Autonomía y Descentralización)* was adopted by parliament. Under the new law, each autonomous unit is required to draft its own "organic charter" or local constitution. It remains unclear if the organic charters will require consistency with the human rights commitments of the Bolivian state.

Institutions

As it strives to enforce constitutional commitments through the adoption of new laws, the Government of Bolivia is also taking important steps to create or re-form institutions to implement them. Of the institutions that might implement the state's commitment to the human right to food, the delegation interviewed representatives of the *Defensoria del Pueblo*, INRA, the CONAN and EMAPA. The delegation also met with Bolivia's Minister of Justice to better understand institutions of accountability and in particular, the new Constitutional Court.

Defensoría del Pueblo

The office of the *Defensoria del Pueblo* (ombudsman) functions as a national human rights institution. Established by law in 1997, the *Defensoria* enjoys an independent mandate to receive and investigate complaints related to violations of human rights – both individual and collective - or other state abuses of power.

[207] MercoPress, May 2008. http://en.mercopress.com/2008/05/03/oas-supports-bolivia-unity-in-eve-of-crucial-autonomy-vote

The mandate extends to the department and municipal levels and now includes indigenous autonomies. The Ombudsman, who is elected by the Legislative Assembly, also makes recommendations to various governmental bodies regarding the protection of human rights in the country with an emphasis on the human rights of indigenous people and of women.

In his presentation to the delegation and others participating in the public seminar that closed the mission, the *Defensor* expressed a strong commit-ment to the promotion of the right to food which he understands to be a key component of the government's development plan and an important dimension of the rights of indigenous people. The *Defensor* reported that in December 2010, his office participated in a right to food workshop hosted by the government in collaboration with the FAO. The workshop also included the participation of parliamentarians working to promote framework legislation on the right to food.[208] The *Defensoria* will be formulating a new strategic plan for 2012-2016.

The National Council for Food and Nutrition (CONAN)

The Consejo Nacional de Alimentación y Nutrición was created in 2003 and reformed in 2006 to its present form and responsibilities. It is funded by a grouping of international donors including Canada, Belgium, France and Spain.

CONAN describes itself as the government institution mandated to implement the human right to food[209]. In their testimony before the UN Committee on Economic, Social and Cultural Rights during Bolivia's periodic review, GoB representatives described the work of CONAN this way: "…the Council is now responsible for promoting the new national food security policy, encouraging and coordinating the participation of public-sector institutions and civil society in the formulation and dissemination of and follow-up to sectoral food and nutrition policies, and promoting the drafting of a national food security policy aimed at eliminating malnutrition among children under the age of five."[210]

The strength of CONAN is its coordination function enabling several ministries to come together under the guidance of the Ministry of Health and leadership of the President of Bolivia. Together they design and deliver programs and projects aimed at providing vulnerable segments of the population with access to sufficient food. Participating ministries include the Office of the President, the Ministry of Finance, the Ministry of Development, the Ministry of Rural.

Development and Land, the Ministry of Justice, and the Ministry of Education. A flagship initiative of CONAN is its Zero Malnutrition (*Desnutrición Cero*) pro-gram, which seeks to improve nutrition among pregnant women and children under the age of five. The program reaches 176 priority municipalities identified as most at risk but does not include the active participation of civil society.

---

[208] *Los Derechos Económicos, Sociales y Culturales en Bolivia : Derecho a la alimentación,* speech delivered at public seminar on the right to food held at the *Defensoria* on February 14, 2011. On file.

[209] Sistematizacion de las Experiencias de Consejos de Alimentacion y Nutricion en Bolivia, CONAN, 2010. http://www.fao.org/righttofood/publi10/bolivia_report2010_sistematizacion_conan.pdf

[210] E/C.12/BOL/Q/2/Add.1, page 47, available at http://www.unhcr.org/refworld/country,,,STATEPARTIESREP,BOL,,48d0c36c2,0.html

Although the delegation did not find that CONAN programs were rights-based in practice, staff had received training about the human right to food and were enthusiastic about its potential value-added for their work. CONAN representatives also said that the agency plans to strengthen conceptual linkages between nutrition and agricultural production policies. To that end they intended to work more closely with the Ministry of Rural Development.

State Company to Support Food Production (EMAPA)

The Empresa de Apoyo a la Producción de Alimentos is a government institution created in 2007 as a means to manage food supplies and stabilize prices. Its stated goal is to provide loans and services to farmers with less than 50 hectares of land – many with less than 2 hectares - so that the country is better able to achieve self-sufficiency in food. Part of EMAPA's work plan is to increase the amount of land available for agriculture (ampliación frontera agricola) in Bolivia to enable increased production of basic commodities.

In some ways, the EMAPA functions as a state-run contract farming institution. It finances the acquisition of inputs and guarantees the purchase of wheat, rice, and corn at the time of harvest. EMAPA stores reserves in La Paz, processes grain into food product, and sells to low-income families in urban centres as needed, at slightly less than market prices. At the time of the mission, EMAPA was active in six departments (Tarija, Chuquisaca, Santa Cruz, Cochabamba, Potosi and Beni).

National Institute for Agrarian Reform (INRA)

The *Instituto Nacional de Reforma Agraria* is a public agency created in 1996 under the direction of the Ministry of Rural Development and Land. INRA's mandate is to create a land administration system for rural land based on ti-tling and supportive of food sovereignty and biodiversity. At the present, INRA is engaged in a nation-wide initiative to verify all existing titles and to ascertain if land is being used according to the criteria established in the re-vised land reform law of 2006. In cases where it is not, INRA reclaims land that does not comply with the law and re-assigns it to small farmers and indigenous communities. According to INRA officials met in La Paz and in the department of Santa Cruz, some land may also be given to the state for production of basic food commodities. The philosophy guiding the INRA program is that once land tenure is secure, small farmer and indigenous communities will enjoy improved access to credit, be better able to invest in their land, and thereby will increase national food production and improve food security.

In December 2010, INRA oversaw the first transfer of land to indigenous com-munities in the Chaco region of Santa Cruz. This case, involving the Guarani people, is described later in the report.

Judiciary

In Bolivia, the judiciary consists of a Supreme Court, an independent Constitutional Tribunal (yet to become operational), a Supreme Electoral Tribunal, and a body of lower courts. Disputes related to the administration of the land reform law are resolved by the National Agrarian Tribunal (TAN) but its decisions can be appealed in lower and national level courts.

In 2010, the National Congress approved legislation that provides a separate and independent justice system for indigenous communities, including independent judicial systems. Its goal is to expedite justice in rural communities where the state is commonly absent and also to increase the autonomy of indigenous peoples in Bolivia. While it remains unclear how efficiently the two systems of justice will co-exist and how effectively indigenous justice will address human rights including the rights of women, the delegation recognized the important role that an indigenous system of justice could play in reducing systemic discrimination experienced by indigenous people within the mainstream legal system.

Policies and programs

Accompanying changes to the Constitution, adoption of new laws, and strengthening of democratic institutions, the Government of Bolivia has taken notable concrete steps towards fulfilling its human right to food obligation through the creation of a wide range of programs dedicated to the improvement of nutrition and sustainable access to food. For the purpose of our mission and this report, the delegation looked at programs within two policy areas – human rights and economic development.

National Human Rights Action Plan

In 2009, based on the constitutional framework, the Ministry of Justice elabo-rated a five-year National Human Rights Action Plan (*Plan Nacional De Acción de Derechos Humanos*) to "guarantee and promote the fulfillment of State's obligations with respect to human rights."[211] The plan was drafted in consul-tation with civil society through a series of round tables and workshops held across the country. The action plan details all the human rights that the state is responsible for based on international and national commitments. Each right is addressed separately with an explanation of the specific challenges, actions to be aken, by whom and how much budget is to be allocated for that specific action. Chapter 7 of the plan is dedicated to the "human right to food security" (*derecho a la seguridad alimentaria*) and is accompanied by a budget proposal totalling 1,810,000 Bolivianos (approximately CAD 250,000).

Implementation of the plan is the responsibility of Bolivia's National Human Rights Council, inaugurated in 2010. The Council operates under the supervision of the Under-Secretary for Human Rights within the Vice-Ministry of Justice and Fundamental Rights and consists of state bodies, civil society and indigenous organizations. The Bolivia office of the High Commissioner for Human Rights participates in Council meetings as an observer. The Council's purpose is to serve as a coordination mechanism between various ministries and other actors, much in the way that CONAN coordinates nutritional programs across ministries.

National Development Plan (PND)

[211] See Bolivia's human rights action plan here: www.ops.org.bo/multimedia/cd/2010/sri-2010-4/files/docs/3_doc_nacio-nales/12_PNADH2009-2013.pdf

Presented in 2006 at the beginning of the MAS's first mandate, the National Development Plan is a five year plan that includes four components: development with social inclusion; decentralization and community-based social empowerment; transformation of the industrial and export system; and a change of focus for international relations. Food sovereignty is included as a fundamental aim of the PND and therefore many of its policies and programs directly or indirectly contribute to the progressive realization of the human right to food in Bolivia.

The PND guides attention to Bolivia's model of agricultural production with the stated objectives of ensuring national self-sufficiency in food, protecting the environment, and promoting small-scale agriculture. Falling under the responsibility of the Ministry of Rural Development and Land, agricultural programs include financial support in the form of subsidies and credit as well as the development of local markets. The plan also aims to increase the amount of land designated for agricultural production through the government's land reform initiative.

The PND policy on Rural Development and Food Sovereignty and Security (PSSA) is implemented through the Food Security Support Program (PASA). The PASA is funded by international donors and in 2010 had an operating budget of 79 million Bolivianos (approximately CA$ 11 million)[212]. Another key program is the Zero Malnutrition Program (*Desnutrición Cero*) implemented through CONAN under the authority of the Ministry of Health. Although lacking an explicit commitment to the human right to food, the PSSA notably includes attention to the empowerment of citizens to claim their human rights through development of transparency and accountability mechanisms at the local level[213].

Best practice - Programs empower municipalities to tackle malnutrition

In 2008, the Association of Female Mayors and Municipal Councilwomen of Bolivia (*Asociación de Alcaldesas y Concejalas de Bolivia* – ACOBOL) set up a part-nership with the CONAN in an effort to municipalize the implementation of the *Desnutrición Cero* program. With support from UNICEF and the Canadian International Development Agency, ACOBOL worked with municipalities throughout the country to ensure that a human rights and gender analysis informed the fight against malnutrition at the local level.

During the initial phase of the project, ACOBOL provided municipal council-women with training on how to ensure that the *Desnutrición Cero* program was prioritized within their municipalities' planning and budgeting processes. ACOBOL's members then worked on raising awareness among their male col-leagues on the importance of tackling child and maternal malnutrition within their communities. Thanks to their efforts, the *Desnutrición Cero* program firmly took root at the local level and elected officials in some of the most food insecure municipalities of the country made the fight against hunger a priority.

[212] www.pasa.org.bo/spp/nacional.php

[213] Replies by the Government of Bolivia to the list of issues to be taken up in connection with the consideration of the combined second, third and fourth periodic reports of Bolivia concerning the rights referred to in articles 1-15 of the ICESCR, para 143. http://www.unhcr.org/refworld/country,,CESCR,,BOL,,48d0c36c2,0.html

Through ACOBOL, municipal councilmen and women were able to share their experiences with other municipalities throughout the country. ACOBOL suc-ceeded in building political will and momentum for the implementation of the *Desnutrición Cero* program at the local level, which is where the fight against malnutrition must ultimately be won.

Land reform, renewed

Efforts to correct problems associated with extreme land concentration have long been a feature of Bolivian politics. In 1953, the government enacted the Agrarian Reform Law that sought to eliminate bonded labour through enforcement of the principle that land belongs to those who work it. Approximately 60 million hectares were distributed but only 10% went to poor families, mostly indigenous and peasant farmers in the western Andean part of the country. Almost 90% was allocated to private interests including foreign investors[214]. In fact, between 1953 and 1992 some 7.7 million hectares of agricultural land were handed out free of charge to only 402 corporate entities or persons, much of it in the eastern areas bordering Brazil[215].

In 1996, parliament adopted a revised Agrarian Reform Law that theoretically at least, allowed indigenous communities in the eastern Amazon departments to gain legal title to their land. However, implementation programs were not efficient and a 2005 study reported that 100 families held title to 12.5 million acres of land while more than 2 million families survived on 2.5 million acres[216] . An evaluation review in 2006 showed that only 10% of the planned redistribution had been completed.

In 2006, the newly-elected MAS government extended the reform initiative for seven more years, promising to complete the work by 2013. The extended law, based on constitutional provisions, requires that land must serve a social and economic purpose, abide by labour law and not exceed a ceiling of 5000 hectares. Implementation of the law has confronted a myriad of problems associated with conflicting land claims and incorrect records. Therefore a nationwide program was launched under the Ministry of Rural Development and Land, in which all land would be surveyed, demarcated, and existing titles would be verified then reissued. As a result of this program, indigenous communities have been given title to land totalling 7.5 million acres with promise of another 50 million acres to be transferred by the end of 2011.

School feeding programs

In addition to programs administered by the central government, municipalities working in cooperation with civil society have launched local economic development initiatives to improve nutrition in their communities including through school feeding. Funding is included in municipal budgets but is often supplemented by donor contributions, for example by the WFP. Initiatives also

---

214 http://ipsnews.net/news.asp?idnews=31029

215 Fundación Tierra 2010, Concentración y extranjerización de la tierra en Bolivia. http://www.ftierra.org/ft/

216 Conflict, Inequality and Dialogue for Conflict Resolution in Latin America: The Cases of Argentina, Bolivia and Venezuela. Helen Barnes, 2005, as quoted in Bolivia: Political and Economic Developments and Relations with the United States, Congressional Research Service, 2007.

include efforts to support local producers by sourcing food from farming communities where the schools are located. In one example provided by the WFP, farmers were encouraged to cultivate peanuts. Women in the community were trained to process peanuts into peanut butter. The peanut butter supplied school feeding programs and the surplus provided cash income for the women.

The CIOEC has been working closely with municipal governments to promote local purchases from farmer cooperatives to supply school feeding programs[217]. In fact, it has proposed a national law that would require such an approach (where possible) in order to reduce reliance on imported food, to better ensure nutritious and fresh food within the school-feeding program and to encourage self-sufficiency in rural communities.

The Indigenous Fund and "Bonos"

As part of its nationalization process, the Government of Bolivia imposed a direct tax on the oil and gas industry. Revenue from the IDH helped to create a fund specifically for the needs of indigenous people (*Fondo Indigena*). It also supports a series of subsidies or cash vouchers (bonos) to benefit other vulnerable groups. For example, the *Bono Juana Azurduy* (created in 2009) targets child mortality and malnutrition by providing economic assistance to all pregnant women and women with children under the age of two. The World Bank has given a 17 million dollar loan to Bolivia to implement this program in the west-ern part of the country[218]. The *Bono Juancito Pinto* provides subsidies for school fees. The *Renta Dignidad* provides annual financial support to all people over the age of 60. Each of these measures has contributed to poverty reduction and as a result has had a positive impact on the ability of Bolivians to access adequate food.

During the mission site visit to Potosi, the *bonos* appeared to reach those in need even in the most isolated rural municipalities. Moreover, communities interviewed reported that bonos were effective in reducing chronic hunger, at least temporarily. However, in other regions the reach of the *bonos* was uneven. For example in Cochabamba, communities interviewed had not benefitted from the *Bono Juana Azurduy*, although it was unclear whether they had simply not understood how to access it. Orphaned children had also been excluded when they had no adult to complete the bureaucratic process on their behalf.

The Challenge of Implementation: Matching Words with Action

As described in the previous chapter, the mission delegation documented numerous positive steps taken by the Government of Bolivia to end hunger and malnutrition. These positive steps demonstrate political will to fulfill the right to food progressively and to the maximum of available resources. Nevertheless, the delegation also observed significant obstacles that have slowed realization of the right to food in Bolivia. This section of the report highlights these obstacles by grouping observations within three policy areas: laws, policies and programs; budgetary resources; and land reform.

---

[217] See Desayunos Escolares: Aporte de las OECAs a la soberania alimentaria at www.cioecbolivia.org

[218] See http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=35011326 or http://siteresources.worldbank.org/NUTRITION/Resources/281846-1271963823772/Bolivia.pdf

Laws and policies lack coherence and effective implementation

> *The elaboration of strategies should begin with a careful assessment of existing national legislation, policy and administrative measures, current programmes, systematic identification of existing constraints and availability of existing resources. States should formulate the measure necessary to remedy any weakness, and pro-pose an agenda for change and the means for its implementation and evaluation.*
>
> Voluntary Guidelines on the Right to Food, art. 3.2

In her 2010 report on Bolivia, the High Commissioner for Human Rights called upon the Government of Bolivia to ensure greater coordination and cooperation between state bodies implementing the National Development Plan and the National Human Rights Plan[219]. Certainly, the delegation found in its interviews with both state authorities and international donors that the problem of hunger and malnutrition in Bolivia is understood as primarily a challenge of economic development or as the result of bad policies of the past rather than a matter of human rights, including the human right to food.

Insufficient implementation of National Human Rights Action Plan

The delegation was confronted by a distinct lack of information regarding imple-mentation of the National Human Rights Action Plan. For example, although the plan itself proposed budget allocations for each right in 2009, it appeared that actual allocations have not yet been made. Moreover, interviews suggest-ed that the government's vision of human rights is largely limited to civil and political rights, while economic, social and cultural rights are considered within different conceptual frameworks.

The delegation also observed confusion about which body within government has overarching authority for implementation of the Human Rights Action Plan. Although technically the plan falls under the authority of the Ministry of Justice, the Minister told delegation members that the section on the right to food was not her responsibility. According to the Minister, implementation of the plan is decentralized throughout various government ministries with the right to food falling under the Ministry of Rural Development and Land. In the delegation's interview with the Minister of Rural Development and Land, however, the Minister appeared unaware that the right to food was a responsibility of his Ministry. Neither Minister referred to the National Human Rights Council which theoretically coordinates implementation of the plan.

It should be noted here that the delegation observed similar confusion around pending framework legislation on the right to food. The Minister of Justice explained that the government's priority is alternate legislation on food sovereignty that will include the right to food. Local non-governmental

---

[219] Report of the United Nations High Commissioner for Human Rights on the activities of her office in the Plurinational State of Bolivia, para 120, March 2011. www.bolivia.ohchr.org

organizations reported, however, that the food sovereignty legislation as it currently stands, omits key human rights principles such as universal application, civic participation and legal accountability mechanisms.

Legal accountability was emphasized in the 2008 report to the United Na-tions by the Special Rapporteur on the Right to Food, Jean Zeigler. In his observations, the rapporteur noted that the *Defensoria* lacked institutional capacity to monitor, document and report right to food violations. He therefore recommended the creation of a "right to food unit" within the *Defensoria*[220] . The recommendation had not been implemented at the time of our mission.

The Human Rights Action Plan includes an objective to provide access to justice for human rights violations (*objetivo 6.5*) but the mission delegation was disappointed by the apparent inability of the judicial system to respond. Procedural delays in the appointment of judges have resulted in a large number of vacancies and a growing backlog of more than pending 5000 cases including cases with human rights dimensions. In its most recent report on the human rights situation in Bolivia, the Office of the High Commissioner for Human Rights urged competent authorities to accelerate the transparent selection of judges in order to reduce the backlog[221]. The lack of judicial appointments has also delayed establishment of the Constitutional Court. The delegation was told during its interview with the Minister of Justice that judges would be elected in the spring of 2011 and that the court would be functional by summer the same year[222]. Lack of a functional constitutional court has delayed land reform. Appeals against expropriation orders linger without judgement while indigenous communities wait to receive legal title to land on which they are living and growing food.

[220] Report of the Special Rapporteur on the right to food, Jean Ziegler: Mission to Bolivia 2008, Human Rights Council, United Nations, January 2008, p.20.

[221] Report of the United Nations High Commissioner for Human Rights on the activities of her office in the Plurinational State of Bolivia, March 2010, A/HRC/13/26/Add.2
http://www2.ohchr.org/english/bodies/hrcouncil/docs/13session/A-HRC-13-26-Add2.pdf

[222] Delegation interview with Nilda Copa, Minister of Justice, February 5, 2011. As the report is written, the judges have not yet been elected.

Definition of terms

Much has been written about the relationship between food security, food sovereignty and the right to food[223]. Although we cannot reflect all the various dimensions of this discussion in the small space available here, it is important in the Bolivian context to clarify the basic elements of each concept.

Food Security: An aggregate vision of food supply at the global, regional or national levels. Food security is a policy objective and does not include empowerment concepts of legal obligation or state accountability. The primary focus of a food security objective is access to food (rather than *how* food is accessed). NGOs and social movements have criticised this objective as too limited because it does not address structural constraints such as systems of production and distribution.

Food Sovereignty: A policy framework developed by civil society to defend the rights of peoples, communities or states to determine their own food and agricultural policies in an era of globalization. Food sovereignty prioritizes the rights of small-scale or peasant farmers, emphasizes localized food systems, control over natural resources including land, and ecologically sustainable production. Food sovereignty does not explicitly include universal application, a requirement to identify the most vulnerable, or the concept of legal accountability of the state.

Right to Food: A legally binding commitment by states, defined and pro-tected in international law, and contained within the International Bill of Human Rights. The right to food guarantees a minimum core requirement of food for all without discrimination. The right to food requires that the state take specific steps, to the maximum of its available resources, to progressively eliminate hunger. It emphasizes state accountability including through the provision of effective remedies for victims of right to food violations.

Conflicting messages regarding the agricultural model

The Government of Bolivia has adopted a policy of "three economies" function-ing together within the state but serving different objectives. In relation to food production the communitarian economy is based in agro-ecological practices and comprises mostly indigenous communities, the private economy serves large-scale agro-industrial production but also includes small-scale peasant farming, and the state economy envisions a role for state-owned production. A law to articulate the "plural economy" (*ley de economía plural*) has been proposed to ensure balance and equity between the three competing models. In the view of the delegation, however, there are important differences between these three visions that have not been reconciled by legislators or government policy makers.

[223] For example, see Food Sovereignty: Towards Democracy in Localized Food Systems, Michael Windfuhr and Jennie Jonsen, FIAN International, 2005.

Much of Bolivia's state and private economy is at odds with the PND objective of food sovereignty or national self-sufficiency objectives. During the delegation's interview with the Minister of Planning, it was explained that Bolivia's food sov-ereignty strategy rests upon two axes: support to small producers; and creation of internal demand through the *bonos* and other similar programs. Despite such claims, the delegation found a lack of budget execution to support the "sector productive campesino" which raised concerns about the seriousness of the government's promise to promote food sovereignty via small scale agriculture. Over the course of interviews and site visits, it became clear that support to small producers does not necessarily mean promoting food for local consumption but increasingly it refers to growing food for export.

An example is the increasingly rapid pace of deforestation including intentional clearing of land for expansion of export-oriented agriculture. Described as the "forest to food" policy, the primary method used to create new land is slash and burn (approximately 80% of new land is created this way). Between 1990 and 2010, Bolivia lost an average of 279,950 hectares of forest cover per year[224]. According to information provided to the delegation during interviews in San-ta Cruz, the rate of deforestation has increased significantly in the past five years. In 2010 alone, more than 500,000 hectares were cleared to expand the agricultural frontier[225].

Other estimates put the current rate of deforestation in Bolivia at more than 800 hectares per day although at least part of this is the result of climate change and drought[226]. The biggest beneficiaries of new land are the large-scale producers of export crops such soy and corn. These producers typically rely upon the use of genetically modified seeds and chemical-intensive techniques which result in loss of soil fertility requiring new land to be cleared.

Even in terms of the government's commitment to Mother Earth, the mission delegation observed that many of the ecological challenges faced by rural com-munities and small farmers in Bolivia are the result of state policies that favour industrial agriculture and the extractive sector. In some cases, these policies appear to be in direct conflict with claims that the government prioritizes environmentally -sustainable small-scale agriculture. Following the mission and as this report is being written, social movements from across Latin America have launched a campaign to protest Bolivia's proposed new law endorsing production of GM crops. Such a law,

hey say, would conflict with constitutional commitments of the state[227] and open the door for production of biofuels, including sugar and palm oil, on land currently producing food[228]. Similar examples were provided during interviews with farmers about support received from EMAPA. They claimed that EMAPA had required that they purchase harmful chemical fertilizers from India or China because they were the least expensive. But EMAPA representatives told the delegation that this

---

224 http://rainforests.mongabay.com/deforestation/2000/Bolivia.htm

225 http://ipsnews.net/news.asp?idnews=55710

226 http://tropicalforestgroup.blogspot.com/2010/12/bolivias-rates-of-deforestation-highest.html

227 According to Latin American Network against GMOs media release dated June 8, 2011, the Law of Productive Community Agricultural Revolution (sp. Ley de Revolución Productiva Comunitaria) contradicts Constitutional commitments as described in articles 255 and 459.

228 The production of palm oil has been controversial in other countries, particularly in Indonesia and Malaysia. For a compilation of news articles, visit http://www.mongabay.com/borneo/borneo_oil_palm.htm

was not true and that farmers could purchase inputs as they wished and still be reimbursed. The farmers also worried that recent EMAPA statements suggested it would begin selling its reserves in rural markets, competing with the very producers it is supposed to be helping.

Failure to address hunger as a whole-of-government concern

While the Government of Bolivia has created laudable inter-departmental processes designed to coordinate efforts to fight hunger and malnutrition – particularly via the CONAN - it nevertheless lacks a whole-of-government approach that conceives the right to food as a multi-dimensional challenge that extends beyond agricultural development and nutritional health. An appropriate government response to hunger, from a human rights perspective, would include attention to access to justice, the elimination of discrimination, fiscal policies, environmental policies, labour laws, international trade and foreign investment. Theoretically, such an approach should be pursued within the National Human Rights Council, but it is not.

CONAN, for example, is the interdepartmental agency created to coordinate nutritional programs and it also claims responsibility for implementation of the human right to food. While theoretically CONAN's strategies and policies are developed together by participating ministries, the Ministry of Justice (responsible for the National Human Rights Action Plan) does not prioritize its involvement in CONAN and told the delegation that the human right to food was the responsibility of the Ministry of Rural Development. The Ministry of Rural Development explicitly includes food security and food sovereignty in its man-date but not the human right to food. Moreover, neither the Ministry of Rural Development nor CONAN administers programs to combat hunger and malnutrition in urban centres. The *Defensoria*, also with human rights responsibility, is not even a member of CONAN.

At the sub-national level, decentralization has led to a number of coordination problems. For example, implementation of PASA by the Ministry of Rural Development bypasses municipalities creating a separate layer of administrative bureaucracy. Communities interviewed in Santa Cruz reported that information about the application process was opaque and that project approval could take as long as three years. Interviewed later in La Paz, the Ministry spokes-person explained that it was the municipalities that were slow and ineffective and therefore the Ministry preferred to "get the job done" itself. The delegation also found that municipal authorities were sometimes unclear about what their responsibilities actually were especially in relation to budget allocations coming from the IDH. There is little doubt that better coordination between levels of government will improve efficiency, eliminate duplication of effort, and enhance progressive realization of the right to food.

Budget expenditures do not prioritize the human right to food

> *Regional and local authorities are encouraged to allocate resources for anti-hunger and food security purposes in their respective budgets...States should ensure transparency and accountability in the use of public resources, particularly in the area of food security.*
>
> Voluntary Guidelines on the Right to Food, Art. 12.1 and 12.2

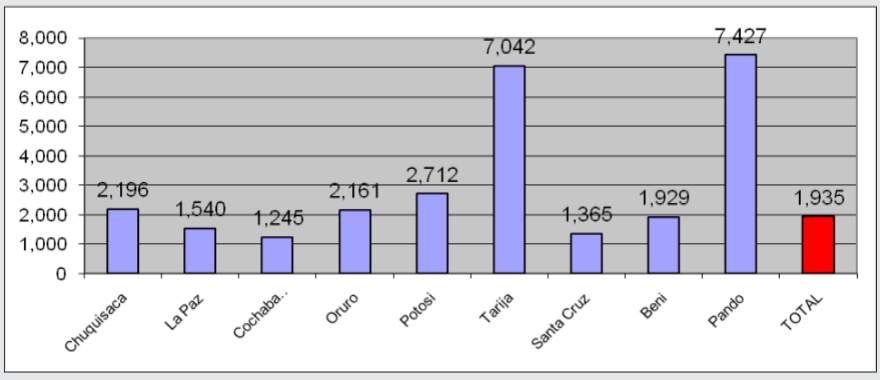
When looking at a national budget from the perspective of human rights, it is necessary to ensure that the budget cycle integrates basic principles of participation, non-discrimination, transparency in information, and accountability. Also, given that the realization of economic and social rights is subject to the limitation of "a maximum of available resources", budget analysis can help to determine whether the government is making sufficient resources available for prioritized programmes. This requires a study not only of revenue generation, but also of expenditures. This section of the report summarizes observations about how poor budget execution has limited the effectiveness of policies and programs designed to meet minimum core obligations and progressively realize the human right to food.

Lack of capacity to execute the maximum of available resources

The rapid rise in government revenue has encountered difficulties related to absorption capacity, particularly at the municipal level. According to delegation interviews with government representatives and civil society organizations, an accumulation of approximately US$ 1.4 billion of government revenue currently remains undisbursed, mostly (but not only) at the municipal level. With respect to expenditures of the central government, the delegation found that IDH in-come is generally spent in ways that contribute to realization of the right to food particularly through the *bono* programmes (although these also receive funding support from the World Bank and are therefore not exclusively an output of the IDH). The *bonos* do, in effect, help to reduce hunger and malnutrition even though their primary objective is to increase school attendance. Unfortunately, however, they are not accessible to everyone in need, particularly the old and infirm as well as families who are unable to travel long distances to collect them from government offices.

At the level of departmental governments, in terms of average expenditures across the departments, a large proportion (47%) of expenditures is dedicated to the construction and maintenance of roads. Approximately 19% is spent on agriculture although it is not always directed to small-scale agriculture. In fact, the focus of departmental expenditures tended to emphasize larger scale agricultural projects. The graph below shows departmental budgets for each of the regions. Given the new distribution formula contained within the Law on Autonomy, revenue sharing is now determined by a set of criteria that does not necessarily give priority to the poorest or most food-insecure departments. The graph shows, for example, the richest regions of Tarija and Pando have far higher budgets per capita than poorer regions such as Potosi. Of course, this is the result of political negotiations to resolve autonomy demands in these departments as described earlier in this report.

2011 Budget transfers by department (per capita, in Bolivianos)



At the level of municipalities, the delegation observed an acute problem in the ability of authorities to spend their full budgets. With unspent money accumulating yearly, authorities had not directed adequate resources to-wards agricultural development or other initiatives that might promote food sovereignty or long term food security for the poorest farmers engaged in small-scale sustainable agriculture. Over a series of interviews with officials in all three site visits, it emerged that this was due partly to a misunderstanding about what the resources could be allocated for. Several municipal representatives told the delegation that financial resources could not be transferred to the private sector including small farmers. The Minister of Finance, however, told the delegation that this was incorrect. He suggested that municipal authorities are not well informed about the rules for disbursement of funds because elections had taken place only six months before and were still learning the job. The Minister added that they may also be concerned about new corruption laws.

Nevertheless, when the mission delegation met with the Mayor and members of the Municipal Council (*Consejo Municipal)* in Colquechaca (Potosi), other limitations were highlighted. While Council members had allocated some budget resources to support small-scale agriculture, particularly for irrigation projects, they also conceded that the investment was comparatively low due to the lack of technical experts to design projects. Experts, they explained, could not be hired because of a restriction that no extra funds could be spent on salaries in the municipality. Donor representatives in La Paz also referred to municipal level restrictions on salaries for technical assistance in agricultural development programs.

Concerns related to revenue generation

In relation to revenue generation from taxes, the delegation found that with the exception of the hydrocarbon tax, revenues remain low and are generated largely through consumption taxes, particularly VAT which is charged at a rate of 12.5% on services and 15.6% on products. This is problematic from a human rights perspective because the burden of consumption taxes falls disproportion-ately on the poor. At least half of government tax income is generated through these regressive consumption taxes.

The delegation was concerned by the government's dependence on the oil and gas sector for its social spending. These are not renewal sources of energy and therefore tax revenues derived from oil and gas are not sustainable. This puts at risk the long term commitment required for social programs to be successful. Delegation members felt that the government must therefore make additional efforts to diversify its sources of income.

Land reform on its own is insufficient

> *States should take measures to promote and protect the security of land tenure...advance land reform to enhance access for the poor and wom-en... promote conservation and sustainable use of land. Special con-sideration should be given to the situation of indigenous communities.*
>
> Voluntary Guidelines on the Right to Food, Article 8.10

As recently as 2008 the UN Committee on Economic, Social and Cultural Rights observed that land ownership in Bolivia was still highly unequal with 70% of all land owned by only 7% of the population[229]. Members of the delegation were impressed by the government's commitment to land reform and by the significant steps taken by INRA, the Ministry of Rural Development and others to reduce inequality. The delegation also observed a number of challenges result-ing from complexities of the issue and the sheer volume of work to be done in clarifying the status of existing land demarcation and related titles. At the same time, however, the delegation felt that the government too often conceived land reform as an end on its own, rather than as one step towards ending hunger and guaranteeing the human right to food.

Progress despite obstacles

Current responsibility for the land reform process in Bolivia is divided among various institutions. Political decisions are made by the Vice Ministry of Land (under the Ministry of Rural Development and Land). The Authority of Forests and Land is responsible for establishing the economic value of specific land – that is, assigning a dollar value for the purpose of compensation. Demarcation, expropriation and titling are carried out by INRA, although INRA does not currently have the mandate to survey land used for export production. Resolution of conflicts related to expropriation and redistribution are considered by the Agrarian Tribunal. Appeals pursuant to decisions of the Tribunal go to department-level Supreme Courts and for those related to constitutional provisions, to the Constitutional Court (not yet operational at the time of writing).

The adoption of a procedure for land reform did not come without a political cost for the national government in La Paz. Landowners in Bolivia's eastern "half moon" departments of Santa Cruz, Beni, Pando and Tarija opposed the policy, sometimes with physical violence. In Santa Cruz, the mission delegation received several testimonies about armed attacks by landowners on human rights defenders, community leaders and even on visiting government authorities including the Vice Minister of Lands. During subsequent interviews in La Paz, these reports were confirmed by the authorities involved[230].

It is a credit to the government's steadfast commitment that more than 50% of land in Bolivia has now undergone a verification process. During interviews with INRA representatives, delegation members were told that the target completion date of 2013 will be met. Such promises were questioned by civil society who questioned the reliability of government statistics and raised concerns about reduced transparency and difficulties obtaining information. One example given was a delay in the publication of annual statistics by INRA. INRA officials told the delegation members that a "Memoria" (annual report) summarizing progress during the past year would be issued before the end of March 2011. At the time of writing, however, it is still not available[231].

---

[229] "Concluding observations of the Committee on Economic, Social and Cultural Rights", CESCR, 2008, observation no.23 http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G08/435/89/PDF/G0843589.pdf?OpenElement

[230] A highlighted case of violence and claims of servitude involved an American rancher. See http://www.nytimes.com/2008/05/09/world/americas/09bolivia.html

[231] June 2011.

A priority on indigenous land – rectifying injustices of the past

Most of the current discourse about land reform in Bolivia refers to the long-overdue reversion of traditional land to indigenous communities. The 1994 Constitution first introduced the concept of Community Lands of Origin (TCOs) (*Tierras Comunitarias de Origen*) as a means to correct inconsistencies between collective land ownership and private ownership of land. Now Bolivian law reflects an understanding of "indigenous land" derived from ILO Convention 169 and the UN Declaration on the Rights of Indigenous People.

In 2009 at the request of the Government of Bolivia, the United Nations Permanent Forum on Indigenous Issues conducted a fact-finding mission to the Chaco region of Santa Cruz where it visited communities in the vicinity of those visited by the Rights & Democracy delegation. The Permanent Forum delegation issued a lengthy report documenting, among other issues, evidence of servitude that it had observed in the large land-holdings.[232] The report also cited violations of both the old and new constitution, the Bolivian Criminal Code and 19 UN conventions.

The delegation members heard many complaints about government foot-dragging related to land reversion to indigenous communities. In one case example, all necessary procedural and administrative steps had been completed more than a year before but the land in question remains in limbo. Involving some 80 properties covering 180,000 hectares in Chuquisaca, the expropriation order had been based on evidence of servitude. The landlords did not pro-test the expropriation order and agreed to sell their land to the state. The central government allocated a budget to cover the cost of compensation (for the landlords) but at the time of writing, the land had still not been given to the indigenous communities. In subsequent interviews with officials in La Paz, no clear response was provided.

[232] The report is available in English at http://www.un.org/esa/socdev/unpfii/documents/UNPFII_Mission_Report_Bolivia%20_EN.pdf

Land but no food -The case of the Guarani

The Chaco region of Santa Cruz is characterized by large landholdings criss-crossed by oil pipelines. This is traditional territory of the Guarani people located amidst rolling hills and pristine valleys. Over the past decades, the Guarani worked as agricultural labourers within the *haciendas* in conditions de-fined by the Permanent Forum's 2008 mission as "servitude" or "debt bondage".

On December 6, 2010, the Government of Bolivia assigned 21,000 hectares of expropriated land to the Guarani people in Alto Parapeti. According to officials at INRA, the successful outcome had not been achieved without difficulties. Landlords denied accusations of servitude and actively disrupted government efforts to demarcate the land in question, sometimes with violence. They pursued their cases in court but eventually lost at each level. A final appeal is now pending in the yet-to-be operational constitutional court. As a result, even though the Guarani communities are slowly receiving land, they remain without legal titles while the cases linger in judicial process.

The mission delegation visited several communities which had been the beneficiaries of land redistribution in the Alto Parapeti. Although the communities expressed hope for the future, they also expressed concerns about the lack of adjustment programs from the government, including training, credit and input subsidies. Moreover, it was clear that increased state revenue from the IDH had not reached these communities and the indigenous fund appeared to have no district level mechanism to which they could apply for assistance. As a result, the communities had engaged in direct negotiations with the oil companies in order to solicit infrastructure funding, particularly for roads.

The mission delegation concluded that land redistribution on its own is not a sufficient guarantee for indigenous people to enjoy their human right to food. Extension services and production support are also required to ensure that Bolivia's land reform initiative contributes to ending hunger. The situation is particularly acute in this current year, aggravated by the 2010 drought which has led to failed crops and lack of seeds for replanting. Without immediate assistance, these communities are at considerable risk of increased hunger and malnutrition in the coming year.

Cross-cutting Issues

> *States should promote democracy, the rule of law, sustainable develop-ment and good governance, and promote and protect human rights and fundamental freedoms in order to empower individuals and civil society to make demands on their governments, devise policies that address their specific needs and ensure the accountability and transparency of government and state decision-making processes in implementing such policies.*
>
> Voluntary Guidelines on the Right to Food, Article 1.2

All human rights are governed by a set of principles that always apply. Broadly speaking, these principles comprise the basic elements of a democratic system of governance. They include participation and transparency, non-discrimination and substantive equality, monitoring and accountability. During the mission, the delegation observed a trend across interviews indicating that these principles are not sufficiently respected.

Limits on political participation and access to information

Although current levels of participation are unprecedented in Bolivian history, the delegation nevertheless received numerous reports of limitations placed on political participation and the free expression of dissent. There also appeared to be a trend to restrict access to information. Land rights activists complained that up-to-date statistics about land reform progress are not available to the public. Similar complaints were received regarding malnutrition statistics.

In terms of political participation, the budget process provides an illustrative ex-ample. The International Budget Partnership (IBP) has produced an "open bud-get index" which ranks Bolivia with a score of 13 out of 100 in terms of open-ness[233]. The low ranking "makes it virtually impossible for citizens to hold the government accountable for its management of the public's money" according to the IBP. A broad reaching survey, conducted by the IBP with Bolivian partner organizations interviewed during the mission, concluded that even Bolivia's National Congress lacks powers to hold public hearings during budget debates or to change budget proposals once they have been presented to parliamentarians for consideration.

Although budget information is published and made available, civil society organizations raised particular concerns about the credibility and transparency of the published data. For example, current expenditures are not published by sector making it difficult to analyze budgets in relation to stated policy goals such as human rights or food sovereignty. In another example, military expenditures are not public, making it difficult to determine whether the maximum of available resources have been allocated first to meeting the state's minimum core human rights obligations. It should be added, however, that the delegation found that the process was relatively more participatory at the municipal level where communities reported that they had been consulted regarding local expenditure priorities.

---

[233] See www.openbudgetindex.org

Beyond the budget process, international donors indicated unease that donor program evaluations are carried out by the Government of Bolivia without sufficient participation of civil society or sub-national levels of government. In the specific example of the PASA evaluation, undertaken in cooperation with the Ministry of Rural Development and Land, donors doubted a constructive outcome because of inadequate stakeholder participation, lack of central government presence at the local level, and a failure to include municipal authorities in the evaluation of national programs.

Discrimination and lack of targeting

Non-discrimination is a basic human rights principle. It requires specific steps to uplift the most vulnerable. This is the reason that a right to food assessment seeks to identify those most affected by hunger and to identify the causes of their vulnerability.

Previous assessment missions conducted by Rights & Democracy found that hungry people are often located in food surplus districts[234]. In food deficit areas, hunger is often caused by structural issues including remoteness or chronic drought. In food surplus areas however, hunger is most often the result of social exclusion, ethnic discrimination or political affiliation. Standard food security targeting procedures often miss the hungry in food surplus areas because vulnerability mapping is determined by geographically-based aggregate data.

The delegation found a distinct lack in the availability of disaggregated statistics in Bolivia that would enable a different approach. Although many pro-grams were designed specifically for the benefit of historically disadvantaged groups such as indigenous communities, the delegation noted that even within indigenous communities vulnerabilities existed based on gender or political affiliation. Programs are not generally designed to respond to such distinctions. For example, CONAN focuses its interventions in 176 municipalities deemed to be most vulnerable but it does not look within the municipalities for groups particularly at risk. Similarly, the Zero Malnutrition program reaches the poorest municipalities successfully but those living in the most isolated communities within the municipality do not necessarily have access to it.

In relation to land reform policies, in both Cochabamba and Potosi, we were told that women generally didn't have access to land titles. The government's land reform program does not address this lack of tenure security for women even though it has a direct impact on their ability to produce food for themselves and their children. In the Cochabamba and Potosi, women interviewed were at additional risk because they lacked personal identification documents and independent access to government programs.

234 See The Human Right to Food in Nepal: Report of an international fact-finding mission, 2007, page 35, www.dd-rd.ca

Widowed women turn to mining to survive

In the town of Llallagua in the northern district of Potosi, two women sit out-side the *Mina Siglo XX* sifting through rocks and dust late one Sunday afternoon. They are the only women in sight. In this community, the women who work in the mining sector are known as *pailliris* – widowed and elderly women for whom mining is the only means of survival. Despite their hard work in grim condi-tions, the *pailliris* often live in poverty and receive little support from the State.

Primitiva, a very dignified elderly woman, works six and a half days a week out-side the *Mina Siglo XX* collecting bits of rock and minerals that male miners have dropped on their way out of the underground mine. She then sells whatever pieces of raw tin she has been able to glean to the mining cooperative. Primitiva plans on working until the days she dies. She has no family to care for her and the old age pension that she receives from the State (*Renta dignidad*) is too small to survive on. Although she has free housing from the State, she has no access to clean water and her two daily meals are comprised of potatoes and maize. When asked what other foods she eats, Primitiva laughs genuinely and says that she cannot recall the last time she has eaten anything else – fruit, vegetables, meat and milk are out of reach.

> Silveria sits besides Primitiva with a young child on her back. Although she is only in her thirties, Silveria looks much older and has lost many of her teeth due to poor nutrition. After her husband passed away, Silveria took his place work-ing as a member of the cooperative in the underground mine but earns less than what he used to make. She has no other choice but to bring her youngest child along with her into the mine, although she fears for the child's health because of all the dust inhaled. Lack of clean water means that her children often get sick and suffer from diarrhea. While Silveria is aware of nutritional programs for women and their children, she is unable to benefit from these services due to lack of time and affordable transportation. The state housing she and her children live in is far from the town and from municipal services. Silveria has learned to rely only on herself.
>
> *Testimony of two women miners in Llallagua*

Lack of monitoring and accountability procedures

Associated with lack of participation in decision-making, flagship policies and programs in Bolivia lack transparent monitoring procedures. In fact, the basic tools for effective monitoring were not available to the delegation including recent population and agricultural census information, and disaggregated statistics.

Moreover, the delegation found that outcome indicators designed to monitor progressive realization of the right to food had not yet been developed. During the interview with CONAN, the delegation was informed that the FAO had con-ducted training on human rights monitoring but the training had not resulted in a monitoring procedure. Nor is there a monitoring plan for the Human Rights Action

Plan. Civil society organizations have filled in where the government has failed to take appropriate steps. AIPE, which participated as a member of the mission delegation, has undertaken an extensive monitoring exercise on the human right to food based on the FAO Guidelines[235].

Moreover, the delegation found that outcome indicators designed to monitor progressive realization of the right to food had not yet been developed. During the interview with CONAN, the delegation was informed that the FAO had con-ducted training on human rights monitoring but the training had not resulted in a monitoring procedure. Nor is there a monitoring plan for the Human Rights Action Plan. Civil society organizations have filled in where the government has failed to take appropriate steps. AIPE, which participated as a member of the mission delegation, has undertaken an extensive monitoring exercise on the human right to food based on the FAO Guidelines[236].

It was also observed that several recommendations by UN monitoring procedures had not been implemented and it was unclear which government office was responsible for ensuring follow-up. For example, in his 2008 report, the Special Rapporteur on the right to food recommended that the state adopt framework legislation on the right to water and that the *Defensoria* create a right to food unit. These recommendations have not been implemented.

In terms of legal accountability, the absence of judicial capacity to handle claims related to violations of economic, social and cultural rights, delays in the establishment of the constitutional court, and concerns about independence of the judiciary, all render state accountability for the right to food illusory.

[235]AIPE uses an electronic database to record the current status of right to food indicators (ISDHAA). See www.aipe.org. bo

[236]AIPE uses an electronic database to record the current status of right to food indicators (ISDHAA). See www.aipe.org. bo

CONCLUSION

The government of Bolivia has made a political commitment to end hunger across the country and it has taken many positive steps to implement that commitment. The delegation was impressed by efforts undertaken to reduce malnutrition and ensure greater self-sufficiency in food production. These policies contribute to progressive realization of the right to food. Nevertheless, on their own, they are not sufficient to fully realize the human right to food for all Bolivians and the delegation was concerned by the many obstacles still faced daily by the communities met with during the mission.

With respect to structural issues such as laws, policies and institutions, the delegation observed lack of coherence, insufficient capacity to implement, and a lack of cooperation between the central government, departments and municipalities. In addition, the delegation was disappointed that the government failed to express clear support for the right to food as an overarching policy framework for coordination between ministries and for the development of long term strategies against hunger. Despite the recent adoption of the Bill on Community Production Revolution, the government's stated policy frame-work of food sovereignty does not adequately support peasant farmers.

When looking at the budget process, the delegation observed that key stake-holder groups were excluded from the process and that budget information was not sufficiently transparent. There is too much reliance on income from the IDH for social programming which is not a sustainable source of revenue. In terms of budget execution, problems with capacity particularly at the municipal level have resulted in delays and an accumulation of significant amounts of un-used financial resources.

The redistribution of land to indigenous communities in the lowlands (east) has not been accompanied by sufficient support services including extension, input subsidies or other social programs. Many of these communities are now isolated and at risk of hunger as they struggle to produce food for their families. In the highlands (west), land plots are excessively small and of such poor quality that they cannot produce adequate food for families that depend on farming.

The delegation notes with concern that cross-cutting human rights principles are increasingly disregarded in Bolivia, including participation, state account-ability, and attention to the most vulnerable.

RECOMMENDATIONS

To the Government of Bolivia

Adopt a whole-of-government approach (national framework) to achieve full enjoyment of the human right to food:

- Adopt a formal process to improve coherence between Bolivia's human rights, environmental, fiscal, and development objectives;
- Implement the National Human Rights Action Plan by strengthening the National Human Rights Council and allocating dedicated budget resources;
- Take steps to ensure that municipalities include an explicit commitment to respect the state's human rights commitments within their organic charters;
- Provide training and information about the human right to food to government agencies operating at the national, departmental and municipal levels;
- Initiate a participatory consultative process with civil society on the pending framework legislation on the human right to food;
- Ensure that the new strategic plan for the *Defensoria del Pueblo* (2012-2016) includes a mandate to defend and promote ESCR including the right to food;
- Encourage participation of small producers and the *Defensoria del Pueblo* in the CONAN process;
- Ensure that orphaned children are able to access the *Juana Azurduy bono*.

Create procedures to facilitate access to effective remedies, either through judicial or administrative processes:

- Increase space for public debate and respect the voices of dissent;
- Ensure the timely appointment of judges for the Constitutional Court;

- Ensure that a national census and agricultural census are both completed at the earliest opportunity;

- Improve access to information including through publication of disaggregated data;

- Conduct a formal evaluation of the Alto Parapeti land reversion project;

- Include civil society in the Performance Evaluation Framework of PASA.

Increase the pace of land reform and ensure that it is accompanied by agricultural support programs:

- Ensure that land reform includes progressive realization of the RTF as its objective;

- Take steps to increase women's ownership of land as part of Bolivia's land reform initiative;

- Ensure that land allocation is accompanied by adequate technical and financial assistance to begin food production;

- Ensure that municipal councils fully execute their budgets and increase support for the agricultural projects of small holders;

- Increase the permissible municipal budget allocation for salaries of technical experts;

- Eliminate obstacles to providing legal titles to communities receiving new land;

- Expedite the land transfer program in the Chaco department of Chuquisaca.

Take steps to ensure efficient execution of the national budget:

- Publish budget expenditures by economic sector and not only by geographic region;

- Take steps to ensure execution of budgets at the sub-national level;

- Ensure that sub-national governments have the explicit right to allocate budget resources to support peasant farming;

- Use IDH revenue to diversify the economy and become progressively less dependent on the extractive sector;

- Allow direct funding to producer and community associations for disbursement to their members;

Fulfill recommendations in the UN Special Rapporteur's report of 2008:

- Adopt framework law on the right to water;

- Create a right to food unit within the *Defensoría del Pueblo*;

- In cooperation with the Ministry of Education, develop and implement a national education campaign on the right to food;

- Allocate a percentage of IDH revenue to nutritional programs;

- Increase the budget allocation for investment in small-scale agriculture.

To Civil Society

Coordinate efforts across political affiliations in order to promote the right to food in Bolivia:

- Build partnership with the *Defensoria del Pueblo* to promote the right to food in particular within the formulation of its new five year plan (2012-2016);

- Create dialogue networks for enhanced collaboration between social movements and civil society;

- Reinforce the Alliance for Food Sovereignty and Nutrition (ASSAN);

- Advocate for national legislation to protect the human right to food.

Document violations and report them to competent regional and international organizations:

- Provide training for community activists to identify and properly document right to food violations;

- Write and submit shadow reports for UN treaty body review processes;

- Establish partnerships with the *Defensoria* and the Office of the High Commissioner for Human Rights in order to seek remedy for violations;

- Track budget allocations and expenditures in order to identify failures of the state to prioritize right to food obligations;

- Identify a specific case for litigation at the national level.

To the International Community

Reinforce and encourage efforts by the Government of Bolivia to meet its human rights obligations:

- Support projects that contribute to human rights including the human right to food;

- Support capacity of the government to collect disaggregated data related to hunger and malnutrition;

- Require civil society participation in the design of donor-funded programs;

- Support projects that encourage independence of the judiciary and training of judges in human rights law, emphasizing economic and social rights including the human right to food.

Support programs designed specifically to address hunger and the right to food in Bolivia

- Provide support for incentive programs targeting small farmers who are the primary producers of basic food for national consumption;

- Provide support to government initiatives aimed at addressing climate change including water supply and management policies;

- Prioritize programs that address economic disparity including attention to racial or ethnic discrimination and provide required technical assistance to enable collection of disaggregated statistics;

- Provide training at the municipal level to improve capacity in expending budget resources.

ANNEX 1: Delegation members

Lorenza Quispe Alejandro, Confederación Nacional de Mujeres Campesinas Indígenas Originarias de Bolivia (Bartolina Sisa) Bolivia

Priscilla Claeys, Doctoral student, Catholic University of Louvain
Foodfirst Information and Action Network (FIAN) Belgium

Gonzalo Colque, Fundación Tierra Bolivia

Liza María Covantes Torres, Centro de Estudios para el Desarrollo Rural Sustentable y la Soberanía Alimentaria de la Cámara de Diputados México

Nicholas Lusiani, Red Internacional para los Derechos Económicos, Sociales y

Culturales (ESCR-Net) United States of America

Ricardo Montero, Coordinadora de integración de organizaciones económicas, campesinas, indígenas y originarias (CIOEC) Bolivia

Julio Prudencio Böhrt, Principal Consultant Bolivia

Virginia Quezada, Instituto de Formación Femenina Integral (IFFI) Bolivia

Lauren Ravon, Rights & Democracy- Canada

Carole Samdup, Rights & Democracy- Canada

Sally-Anne Way, Center for Economic and Social Rights
Spain

ANNEX 2: Interviews in La Paz

Defensoría del Pueblo

Dr. Rolando Villena, Defensor del Pueblo

Federación de Asociaciones Municipales de Bolivia Ramiro Suazo, Director de planificación y proyectos

Asociación de Concejalas y Alcaldesas de Bolivia María Eugenia Rojas Valverde, Gerente General Modesta Benito Anti, Secretaria del Directorio

World Bank

Oscar A. Avalle, Representante Residente

Embassy of Canada

Andrew Scyner, Consejero y Jefe de Cooperación
Marianela Montes de Oca, Consultora especialista en gobernanza
Bernardo Peredo Videa, Analista Político, Unidad Andina para la Gobernabilidad Democrática

Vice Ministerio de Desarrollo Rural

Germán Gallardo, Director general de producción agropecuaria y soberanía alimentaria

Food and Agriculture Organization

Gonzalo Flores, Representante Asistente

Ministerio de Justicia

Nilda Copa, Ministra de Justicia
Miriam Campos Bacarreza, Coordinadora Nacional Pueblos Indigenas y Empoderamiento

Vice Ministerio de Micro Empresa

Abdon Vasquez, Jefe de la Unidad de organizaciones económicas campesinas, comunitarias y cooperativas

Instituto Nacional de Reforma Agraria

Juan Carlos, Director Nacional (via telephone)
Juan de Dios Fernández, Secretario General
European Union Delegation in Bolivia

Amparo González Diez, Oficial de Programas Sección de Cooperación

Embassy of Spain

Carmen de Diego Fonseca, Responsable de Programa de Cohesión Social
Mercedes Alonso Segoviano, Responsable de Programa de Desarrollo Económico y Empresarial

Office of the High Commissioner for Human Rights

Maria Andrea Echazú, Coordinadora Unidad de Cooperación Técnica Inés Carrasco, Especialista en Promoción de Derechos Humanos

World Food Program

Victoria Ginja, Representante
Sergio Torres, Jefe de Unidad de Programa

Inter-American Development Bank

Baudouin Duquesne, Representante del BID en Bolivia

Fundación Jubileo

René Martínez, Analista de presupuestos
Javier Gómez Aguilar, Director ejecutivo

Ministerio de Economía y Finanzas

Luis Alberto Arce Catacora, Ministro de Economía y Finanzas

Consejo Nacional de Alimentación y Nutrición Ana
Maria Aguilar, Secretaria Ejecutiva

Ciro Kopp, Coordinador Técnico - Programa Multisectorial Desnutrición Cero
Luis Rico, Comité técnico
Olga Soto

Fondo para el desarrollo de los pueblos indígenas Elvira Parra, Directora

Instituto Prisma
Ronald Grebe Lopez, Coordinator

Confederacion Sindical Unica de Trabajadores Campesinos de Bolivia

Julian Jala Flores, Secretario General
Rodolfo Machaca Yupanqui, Secretario Tierra y Territorialidad

ANNEX 3: Site visits

POTOSI

Municipio de Llallagua

- Alicia Soliz, President of the *Socias de la cooperativa de mujeres palliris El Carmen*
- Victor Ordoñes, Representative of the *Federación de cooperativas de Norte Potosí*
- Benito Vilca, President of the *Asociación de productores de oca de Pocoata* (APROCAP)

Municipio de Pocoata

- Interviews with women selling produce in the town square
- Meeting with members of the Municipal Council (*Consejo municipal*)
- Individual interviews in the Huancarani community
- Sonia Meri Ucla Lascano & Noemi Portilo (peach growers)
- Director of town school and three teachers

Municipio de Colquechaca

- Tomay Kuri community (including a meeting with representatives of the *Comité cívico* and the *Asociacion de productores de Charque Tomay Kuri*)
- Pati Pati community
- Carmen Ticona, President of the *Asociación de producción y transformación de cereales de Colquechaca*
- Seratin Romero, Mayor of Colquechaca
- members of the Municipal Council (*Consejo municipal*)
- Visit of the *Unidad de nutrición integral de Colquechaca* (UNI)

Municipio de Macha

- Meeting with representatives of the *Proyecto agropecuario y salud de Chayanta*
- Meeting with representatives of a cooperative: *Artesanías nativas Korusa Llawe*
- Visit to an agricultural fair: *Feria de Pampa Colorada*

SANTA CRUZ

Municipio de Camiri

- Eufronio Toro and Mauro Hurtado, CIPCA Cordillera
- Celso Padilla, Chairperson, Asamblea del Pueblo Guarani
- Dimetrio Yapa Rico Pena, Capitania del Alto Parapeti

TCO of Alto Parapeti

- Group meeting - Comunidad de Karaparacito
- Group meeting - Comunidad de San Isidro
- Group meeting - Comunidad de Yaiti

City of Santa Cruz

- Aldopho Chavez, President; Ernesto Sanchez, Secretary for Economic Development; Ernesto Suarez, Manager of Communications - Confederacion de Pueblos Indigenas de Bolivia (CIDOB)
- Miguel Angel Crespo, Director; Rosa Virginia Suarez, Coordinator - Productividad Biosfera y Medio Ambiente (PROBIOMA)
- Diego Marquina Mofina, Regional Director - Instituto Nacional de Reforma Agraria (INRA)

COCHABAMBA

Municipio de Tapacari

- Group meeting - Comunidad de Antakaua
- Group meeting – Comunidad de Palcoma
- Group meeting – Comunidad de Chaupirrancho
- Group meeting – Comunidad de Kjarkja
- Isabel Domínguez Meneces, Confederación Nacional de Mujeres Campesinas Indígenas Originarias de Bolivia (Bartolina Sisa)
- Visit to the local agricultural fair: *Feria de Confital*