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

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(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
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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[1].

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.

[1] "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

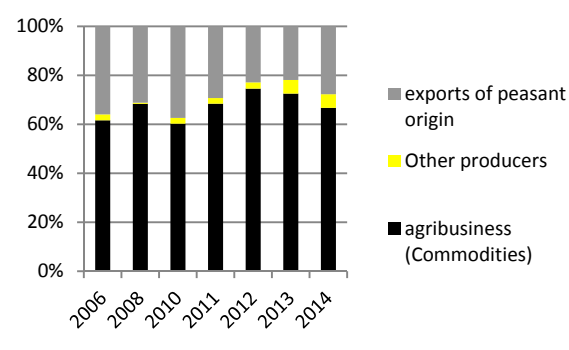
The main exports from the Bolivian agricultural sector have had a significant increase in recent years. In 2006 it exported worth of US $ 331.5 million; while in 2014 exports reached US $ 1761.7 million, which means that 8 years increased 5.3 times the value of exports, more than ever before for food 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[2].

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.

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%).

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.

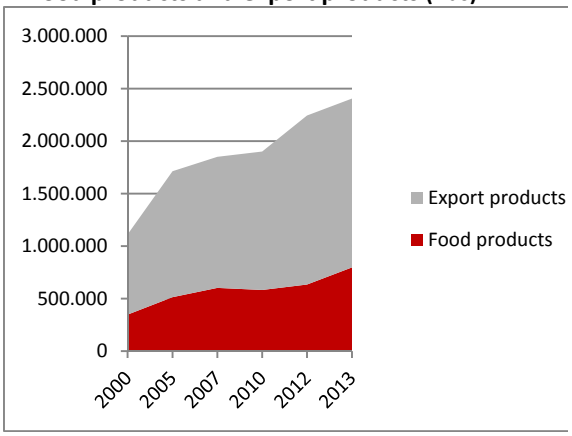
Transgenic soybeans[3] grown in 688,889 increases between 2000 -2013 you while potato area - essential product consumption of the Bolivian population - increased by only 1.800 hectares in those years. Other basic crops of consumption baskets of the population (tomato, garlic, bean, cassava, barley grain) and even forages for animals (such as alfalfa and barley cabbage) have declined (see Graphic 2).

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

[3] That 99% is produced from GMOs

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.

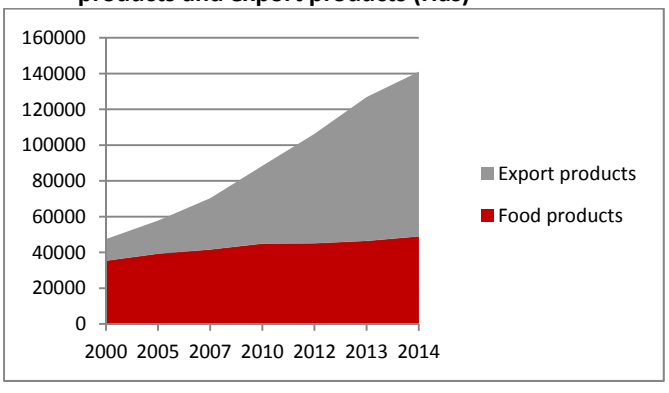
The case of quinoa - the star product nutritionally and even supported by FAO to promote their production - is another example of sustained above.

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%.

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"[4] 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).

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[5].

> "…. 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) [6]

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[7] (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

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

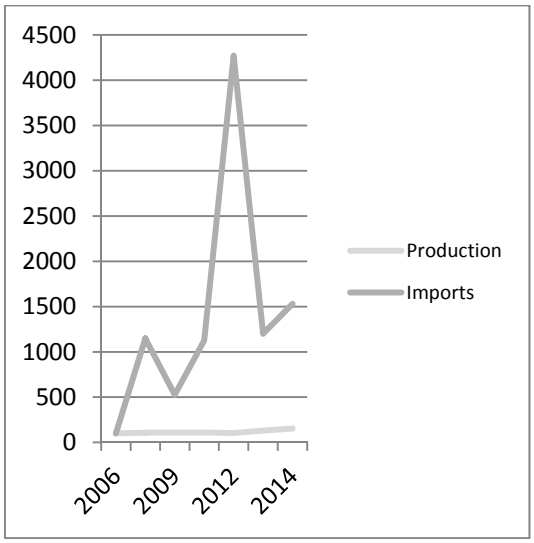
[5] In this sense, it becomes effective the phrase that "Bolivia, unlike Mexico, has not needed to have a NAFTA (NAFTA North) to decrease the production of the product that gave rise worldwide - main food product of the population - and become an importing and dependent country".

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

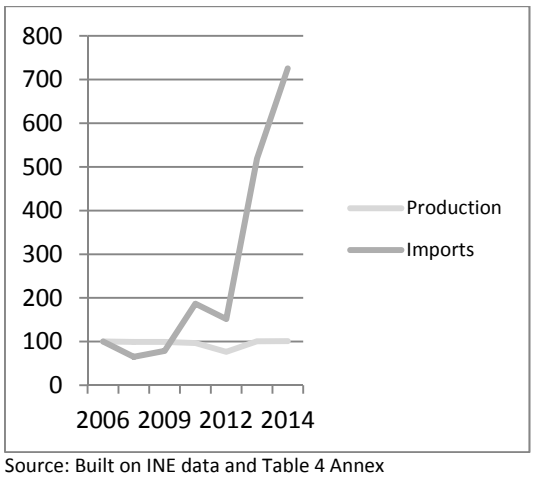
[7] In 2013/14 and 2014/15 the production is hardly increased to the levels of 2006/07.

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[8], 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 tons imported in 2005 was passed to 28,921 tons in 2009 and 142.000 tons in 2013[9].

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

[9] In 2013, Bolivian pesticide imports come mainly from China (Los Tiempos 08/25/2015)

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	2012
Insecticides		5.535	5.971	8.111	8.530	4.224
Fungicides		1.945	2.441	3.648	839	3.612
Herbicides		11.829	14.139	17.161	17.300	77.658
Total	8694	19309	22551	28921	26669	90300

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[10], while in 2014 was 38 Kg/Ha used[11]. 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[12] was 5.2 Kg/agrochemical/person/year (www.RAP-AL.com)

¿Why this rapid growth in the use of chemicals … herbicides in particular[13]? 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

[10] For a cultivated area of 3.507.257 Has (2012-13) in the whole country area (www. MDRyT)

[11] 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)

[12] The world's largest consumer of pesticides, with over one million kgs / liters in 2009 (ECOPORTAL 31/05/2011)

[13] On the other hand, it increases the country's dependence towards imports of these chemicals.

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[14], 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, 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[15].

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[16]) 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[17]. 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

[14] 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").

[15] 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).

[16] 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).

[17] 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).

in recent years. According to official reports of food vulnerability[18], 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 limited social sectors where richest is being concentrated.

[18] 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).

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[19]; 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

[19] "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.

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[20] 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.

[20] 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."

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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
T O T A L	**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