

## CHAPTER 2

# AGRICULTURAL DEVELOPMENT AND TRADE LIBERALIZATION

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**Abstract.** Agriculture represents in Brazil roughly one third of GDP; a quarter of employment and 42% of exports. During the last 15 years, the cultivated area increased with 24%, but production more than doubled. Much attention is given to innovation in new technologies, fertilizers and agrochemicals for enhancing productivity. Supply in the agribusiness sector is continuously increasing, and Brazil has become a major exporter of coffee, sugar, soybeans and meat to the EU, US and Asian markets. Even while there is still some room for expansion, it is recognized that most of future agricultural growth must come from productivity improvement.

Open markets are in the benefit of their consumers, but countries are entitled to maintain some subsidies for environmental and social purposes as long as these do not generate distortions in the market. This is the key question that has to be faced in the WTO negotiations. The core challenge for Brazil is to make agro-food chains a development instrument for the government. Cooperatives play a very important role in integrating chains and enhancing a participatory process of rural development. They bring small farmers together, adding value to their production and enabling them to access the market.

**Keywords:** agricultural growth; agricultural productivity; market liberalization; cooperatives; Brazil

## INTRODUCTION

We owe much to Wageningen University for this opportunity to discuss some key issues related to agriculture and trade in the world. I structured my presentation in two parts. First, I will show you how important the agricultural sector is for a country like Brazil. Second, I am going to discuss the issue of globalization and trade intervention and why these are critical for countries like Brazil. Before this, I would like to share with you some of my personal experiences and how I learned about the importance of international economic relations.

## FARMERS AND STOCK EXCHANGE

My grandfather, the father of my father, was a large coffee farmer in Brazil. In the beginning of the 20th century he owned about seven coffee estates. He was a very severe, but also very rich man in Sao Paulo state. Being an important farmer, he was

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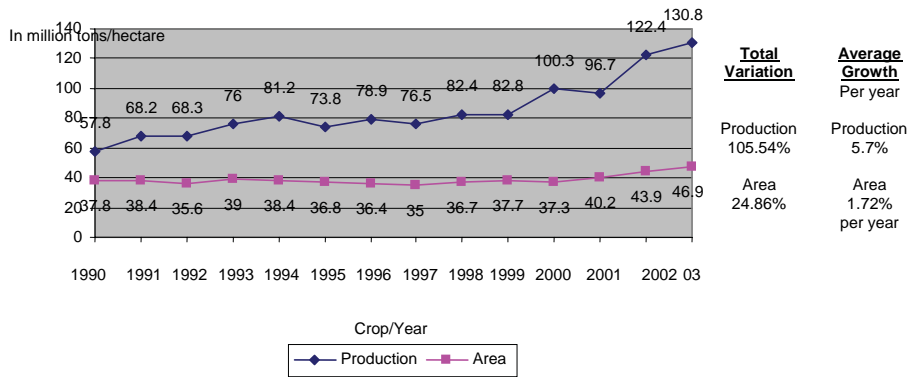
also involved in politics and finally he even became the mayor in his city. He owned a nice car and a good house, and became engaged to a beautiful girl. At that time he was a symbol of wealth. Soon, however, he experienced the breakdown of the stock exchange in New York in 1929. My grandfather had never heard about New York and did not know anything about the stock exchange. But soon he found out that the pieces of land he owned only had 10-20% of the value they used to have. He had just bought a new farm. At that time he used to pay 10% of the price and the rest would be paid during the next 4-6 years. But after 1929, he noticed that the purchase price of his last acquired farm was more or less the same as the value of all the other seven estates together. He therefore had to give the seven estates as collateral for his loan to the Banco de Brazil, our official bank. That is how he became poor again and also ashamed, and decided to go away from Piricicaba, his native city. He became engaged in cutting wood and suffered from such a poor situation that when he died and was buried, his brothers and sons, once informed, could not even find his grave.

So, a rich man can become poor just because of a New York bankruptcy. But, the father of my mother was an Italian immigrant. He went to Brazil and became an employee of a coffee farmer who experienced a bankruptcy in 1929 and had to give his farm to the Bank of Brazil. The bank sold this land to the employees of the farms. The father of my mother became a poor family farmer, due to the same reason that the father of my father, who once was a rich farmer, ended up poor. The interesting thing is that both did not know anything about New York and had nothing to do with the stock exchange, but were unwillingly affected by these affairs. For some it meant bankruptcy, for others it was a change. My own father was a clever man, supported by my mother, and I became finally the Minister of Agriculture of Brazil. This history orients me in my daily work as a Minister. We have the responsibility to provide the conditions for farmers in order to avoid that some external events put them into misery, while at the same time we should offer them the opportunities for reaping the fruits of progress.

#### THE ROLE OF AGRICULTURE

Let me now show you in a glimpse how the Brazilian agri-business sector is structured. Agriculture represents roughly one third of our GDP; 27% of our jobs come from the agri-business sector and agricultural products represent 42% of our exports. During the last 15 years, the cultivated area has increased with 24%. During the same period, production has increased with 105% (see Table 1). This year, 2004, we could have had even more production, but due to a terribly dry season in the south of the country large areas were lost. Nevertheless, you can notice that farmers have put a lot of effort in increasing their land productivity, making use of the innovations generated by EMBRAPA (the Brazilian research and extension agency).

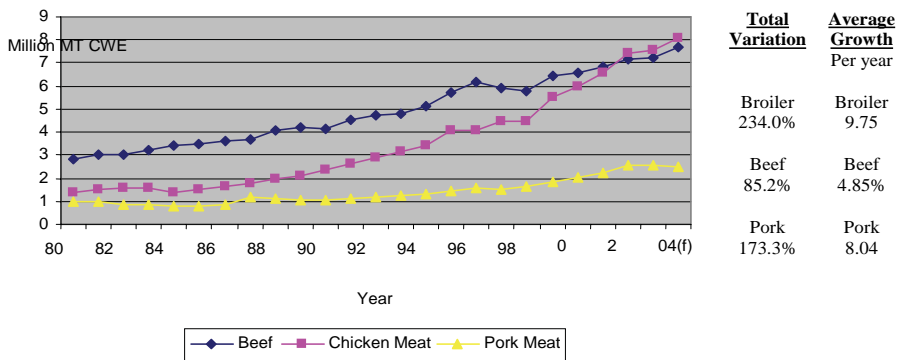
**Table 1. Evolution of Brazilian Grain Crops**



Source – CONAB/MAPA

The same is happening for different kinds of beef, pork and chicken meat (see Table 2). Particularly through the development of specific product labels (e.g. red lion for beef, blue-eye chicken, and green lion for pork meat), all the three sectors have reached a substantial increase in production and productivity.

**Table 2. Brazilian Meat Production**



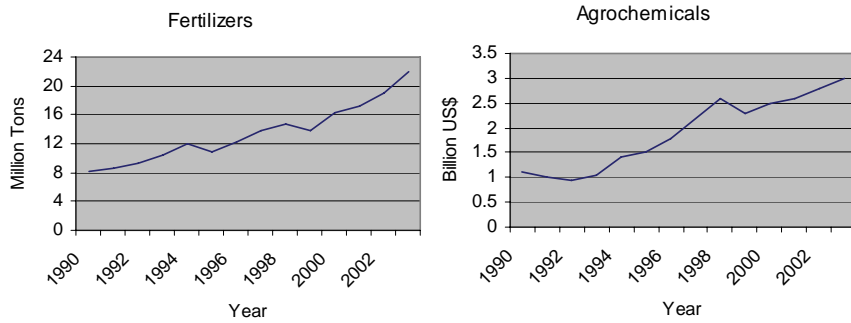
Source – CONAB (1995-2003) & FAO (1980-1984)

Elaboration - ICONNE

Note: 2003/04 forecast

Agricultural growth is strongly favoured by the use of new technologies, fertilizers and agrochemicals. It is obvious that – as population is increasing in the whole world – the available farmable area per capita will be reduced. So in the future, there will be land scarcity. The core question is then: will there be enough land to feed

**Table 3. Agricultural Intensification: Fertilizers and Agrochemicals Sales**



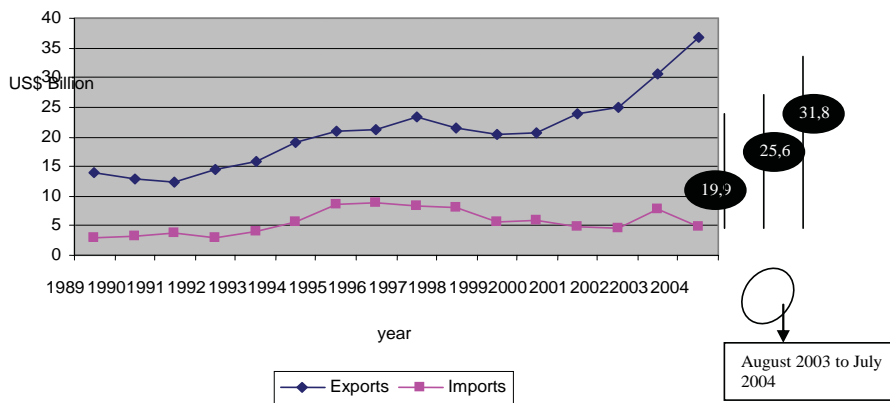
Source - IBGE  
Elaboration - ICONE

mankind? Wide availability of modern agricultural technologies for improving yields is therefore of fundamental importance. Over the past 12 years, we can notice that the use of fertilizers and agrochemicals has more than doubled in Brazil (see Table 3), in an effort to increase agricultural productivity.

**EXPORT PERFORMANCE**

This productivity growth has important implications for our trade performance. There has always been a positive balance since the 1960s and this is maintained during the 1970s and the 1980s (see Table 4). Supply in agri-business has been continuously increasing, especially during the last three years. For this year we

**Table 4. Brazilian Agribusiness Trade Balance**



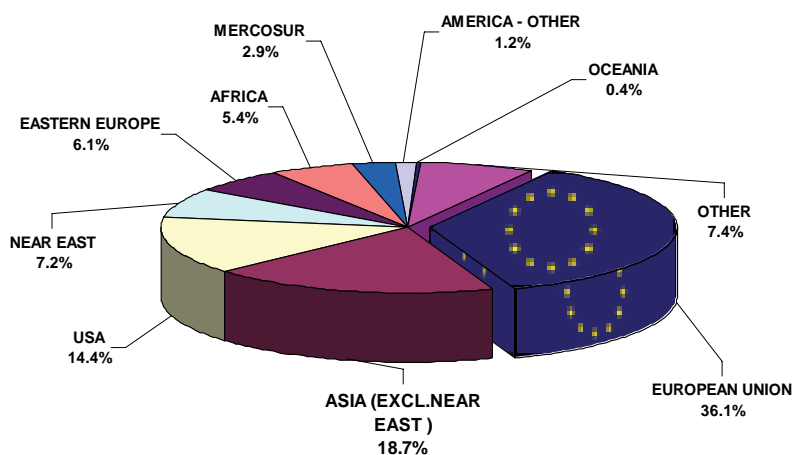
Fonte - MAPA/SPC

expect to reach something close to 32 billion dollars of surplus in the sector. The European Union is the most important market for Brazil: one third of our exports in the agri-business sector are directed to the European Union, followed by the United States with 14%, and Asia with a share close to 20%, although the latter is rapidly increasing due to the expansion of the Chinese market.

*Table 5. Brazil's shares in world production and trade (2004)*

	Production		Exports	
	Share in world production	Ranking	Share in world production	Ranking
Coffee	31 %	1	29 %	1
Orange juice	47 %	1	82 %	1
Sugar	16 %	1	29 %	1
Soybeans	30 %	2	38 %	1
Soybean starch	18 %	2	34 %	2
Soybean oil	19 %	2	28 %	2
Coffee (soluble)	n.a.	n.a.	44 %	1
Poultry	14 %	3	29 %	2
Beef	16 %	2	20 %	1
Tabacco	9 %	3	23 %	1
Cotton	5 %	5	5 %	4

Fonte – ERS/USDA  
 Elaboration - ICONTE



Brazil is one of the most important producers of coffee, orange juice and sugar, and the world's leading exporter of soybean, beef and tobacco (see Table 5). We are

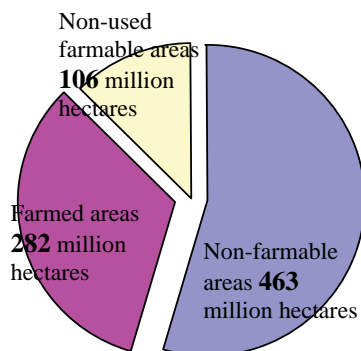
becoming important exporters of cotton and bio-fuels as well. Recently, during one of my visits to Asia, I became involved in a lengthy discussion about bio-fuels. Countries like Thailand do not possess any oil and fully depend on the imports of oil at high prices. For these countries, further development of biological sources for energy is of vital importance. We should be aware of the fact that in less than one century, humanity became fully dependent of a product that is going to finish some day. This should be a collective concern of mankind. We now depend on six or seven large international companies and if we want to escape from this trap, the further development of bio-fuels might be the right alternative.

### LAND USE

In addition to cropping, Brazil plays an important role in livestock production. We have 62 million hectares occupied by the agricultural sector, of which 47 million are with food crops and 15 million with cash crops (see Table 6). In addition, we cultivate 220 million hectares of pastures. Some research organized by the fertilizers sector in Brazil informs us that in the next 15 years about 30 million hectares of

*Table 6. Land-use distribution in Brazil (by categories and sectors; 2004)*

#### Brazil Land Use - Actual and Potential



Source – VEJA 03032004

Source – IBGE e CONAB - MAPA

#### Territorial distribution (million ha)

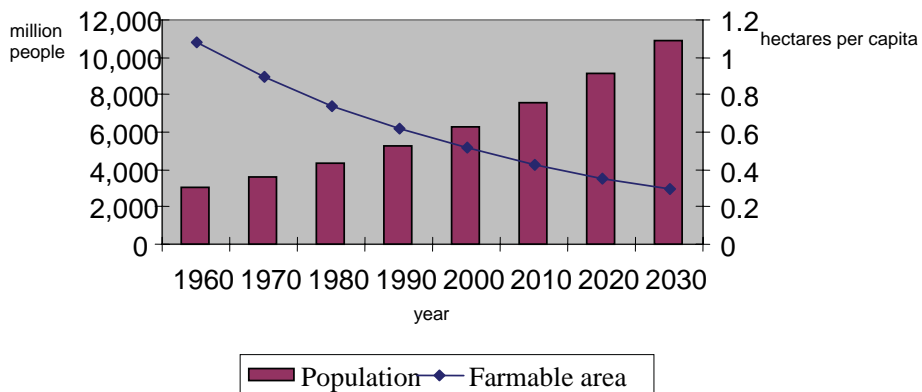
Amazon rainforest	350
Breeding pastures	220
Protected areas	55
Annual cultures	47
Permanent cultures	15
Cities, towns, lakes, roads and swamps	20
Cultivated forests	5
Other uses	38
Total	707
Other usos	38
Unexploited area	106

pastures will be transformed into agricultural areas because the technological progress in cattle-raising is so large that we will be able to produce much more beef while using less land. If we maintain today 62 million of hectares and it took us 500 years to arrive at these figures, how should we be able in the next 15 years to add 30 million hectares? More importantly, what are the reasons to expect such changes? A lot of this discussion is based on future scenarios made by international enterprises and the food industry. They have – so to say – discovered that Brazil has to produce 60 million tons of grain more in the next ten years. Both studies conclude that we

might have to incorporate into agriculture in the next decades a total area of two million hectares per year. This is something that looks very difficult and may be impossible. During the last three years we have been incorporating 2.5 million hectares per year, and last year we reached 3.5 million hectares just in one year, mainly through conversion of pastures into arable land.

It is highly important for us to understand what is going to happen with the agricultural sector of Brazil in the near future. Different media have been speaking about the expansion of pastures in the Amazon region and their disappearance from the region of São Paulo state, where land has become too expensive to maintain extensive pasture areas. In other regions, we need to develop agriculture, given the large potential for Brazilian agri-business and its predominant role in our economy, contributing roughly one third of the GDP, one third of the jobs and almost half of exports. Even while agriculture is now already the largest sector in the country, we still have an important potential to grow, perhaps with 50% or more during the next decade. The largest potential is available in the so-called *cerrados*, a kind of savannahs in Brazil where we have 90 million hectares of suitable agricultural area. The *cerrados* used to be very poor areas, but with potential to be developed for cropping purposes. There are no great fertility problems, and mechanization can be easily implemented. In Mato Grosso state, we are now harvesting soybean and seeding corn for the next season. These areas possess appropriate conditions to convert this potential into reality. But at the same time we need to recognize that at least 85% of future agricultural growth should come from productivity improvements of land already in production. The foreseen increase in population and the reduction of arable farmland (as illustrated in Table 7) asks for substantial increases in productivity.

*Table 7. World Agriculture Area Per Capita*



Source – ONU  
 OBS: Total Area Used = 3,234,521 ha

On the other hand, developing this region would enable us not to touch land in the Amazon region. What is happening in the Amazon region is that the controls that are implemented today in order to avoid deforestation are very useful and become very efficient, particularly regarding the larger farmers whose activities can be controlled through satellites and other methods (Cattaneo 2002). But millions of (very) small farmers just cut a few trees every year and this can impossibly be controlled. They need first of all access to other income sources or better-rewarding activities in order to prevent the degradation of natural resources.

### FUTURE FOR SMALLHOLDERS

This brings us to one of the most important problems we are facing today. While we possess enough land and suitable tropical technologies for the agricultural sector and we have EMBRAPA as our federal organization for research and extension (maintaining partnership with 82 different countries in the world), a wide range of state organizations, universities and even some private organizations, especially in the cooperative sector, that are organizing excellent research for new technologies, and especially we have good farmers, still the progress reached in productivity development of the smallholder sector or so-called family agriculture during the last four decades has been rather limited (Cassel and Patel 2003).

It is important to recognize that we have more and younger farmers, as well as a large number of female farmers in Brazil involved in agriculture. In some European countries, women do not want to get married anymore with farmers, and revenues from farming in developing countries are reduced because of ritual inheritance regulations. We need therefore to guarantee that farmers perceive profits and can establish decent families in the countryside. When I am travelling throughout my country during the weekends, visiting fairs in different regions of the country, I am always delighted to meet with young people who received a good training in agronomy or rural-economic studies. Our rural population thus needs further education and qualified people prepared to meet the future challenges.

### GLOBALIZATION AND TRADE LIBERALIZATION

I have been watching what happened in the world after the globalization of the economy (Farina and Viegas 2003). Globalization has two sides; first we see a positive impact because trade has been growing, and if there is more trade there will be more production and more wealth throughout the world. But we can also notice a downside of globalization. The negative effects of globalization are the increasing social exclusion and the overwhelming concentration of wealth in all countries in the world. Wherever you go, you see social exclusion and concentration of wealth, especially and mostly in developing countries. Nowadays, these two faces of the process of globalization are more and more threatening democracy and peace. In the newspapers and other media, we notice that democracy is at risk and that peace is even more threatened. Therefore, the most important challenge for mankind in the 21st century is maintaining democracy and peace. To do so, it is absolutely



fundamental to reduce the social and economic gaps all over the world, between rich and poor countries, and between rich and poor people within the same country. This is the most important challenge for human development in our times.

While everybody agrees on the necessity to redistribute income, it is always another's income, not mine. Well-trained academic professionals teach us that the easiest way to reduce this gap is when the developed countries open up their agricultural markets for products from the developing countries. First, because in the developed countries there is only a small minority of the population depending on farming, while in the developing world a large number of people depend on agricultural income. Second, richer countries can afford to pay their farmers for not producing, while developing countries have to produce to pay the debts. I strongly believe that agricultural markets have to be opened in order to defend democracy and peace, and to reduce the existing development gaps. I am also convinced that this is going to happen, because governments in developed countries will recognize – even if they face some electoral problems – that open markets are in the benefit of their consumers. This does not mean, however, that all subsidies fully need to disappear. Many countries are entitled to maintain subsidies to stimulate multifunctional land use, to defend the environment and to foster sustainable agriculture, and even to maintain people living in the rural areas for reasons of social and political stability. Otherwise, subsidies should not generate externalities to other countries, disturbing the price at the market or limiting the possibilities for developing countries to accede these markets. Subsidies may be necessary, but should not generate distortions in the market. This is the key question that has to be faced in the WTO negotiations.

The new WTO agreement reached on 1 August 2004 had three main pillars: market access, domestic support and price subsidies. Tariff reductions for the future still do not imply a real opening of markets. It is just a first sign of opening, but it is certainly not a guarantee. We need much more than that, in fact we need bilateral agreements. We shall forward our case in the good relationship between the European Union and MERCASUR to get clear and immediate market access for Brazil, the Latin-American countries and the developing world in order to be able to generate our own wealth and to reduce the enormous social and economic gaps. This permits us in turn to defend democracy and peace.

#### CHAIN DEVELOPMENT

To reap the advantages of trade, we trust on the generation of specialized and qualified young farmers throughout the country. The core challenge we face in Brazil is how to make agro-food chains a development instrument for the government. Sustainability has become a concept that everybody is talking about. We are doing our job in promoting organic and minimum-tillage agriculture and integrated cropping systems. We are now improving sanitary measures and are strongly involved in international negotiations on export promotion, leading the DG20 group that is responsible for the success of the last round of negotiations in WTO.

Chain coordination is something we are trying to promote, especially from academic circles, orientating the actors and the market agents to establish their own governance in order to become less dependent on governmental decisions. The establishment of chain organizations is based on sectoral chambers that represent all stakeholders within particular production chains. Today we have 21 chambers working very successfully since we put together scientists, the producers of inputs, the cooperatives, the primary producers, the exporters, the industries and the distribution sector. Everybody is discussing about integral chain performance in order to improve sustainability of the chain to satisfy consumers (Zylbersztajn and Filho 2003; Neves et al. 2000). The price and quality of food that the consumers need today drive us into the right direction. One of the chambers is dealing with the chicken, pork and corn chain. People came to me and asked why chicken, pork and corn altogether? I explained to them that a chicken is nothing else than an egg full of corn, with wings and backs. If you do not have eggs and corn you cannot produce chicken. They have to understand that they must work together in order to get sustainability in the chain.

Today infrastructure and logistics represent in Brazil the most critical bottlenecks for chain integration. During the last 10 years we have not made sufficient investments in infrastructure, ports and railways, and this is now becoming a large problem for us. Lulu's government is trying to promote in parliament that public-private partnership can become an attractive device for infrastructure development. But this requires new legislation that we will have to attract private investors for co-investment in infrastructure work.

#### PARTNERSHIPS AND COOPERATION

Supply-chain partnerships are especially important to us, particularly to support the economic transition from intensive use of the environment towards less-intensive but more efficient production systems. Cooperatives are playing a very important role in integrating chains both locally and worldwide. One of the questions for this conference was: how to make income available to farmers that participate in the chain in order to enhance a participatory process of rural development. From 1997 to 2001, I have been president of the international cooperative alliance (ICA), an important organization with its head-office in Geneva. Before that, I have been president of the Brazilian federal cooperative organization and the cooperative organization for the Americas, strongly committed to the support for agricultural cooperatives. For more than 10 years I have been working in the international cooperative movement. During the last 15 years I have been travelling to visit cooperatives all over the world, in more than 80 countries. I learned that cooperatives can provide a very sound answer to the question of participation in income sharing. Cooperatives may be the only way to bring small farmers together, adding value to their production and enabling them to access the market.

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