

Chapter 8
CONCLUSIONS

8.1 RESULTS OF CERRADOS AGRICULTURAL DEVELOPMENT

Since the 70's, the Brazilian Government has engaged in the agricultural development of the Cerrados region where soils were considered for a long time unsuitable for agriculture. In 1973, the Minas Gerais State government initiated implementation of the PADAP – Program of Guided Settlement of the Alto Paranaíba and in 1975, the Federal Government initiated POLOCENTRO – Program of Cerrados Development. In the same year, the Agricultural Research Center of Cerrados – CPAC (today called EMBRAPA-Cerrados)– was implemented to coordinate and to develop researches in this Region. In 1977, the Project of Technical-Scientific Support for the Agricultural Development of Cerrados was initiated in the form of bilateral technical cooperation between the governments of Brazil and Japan. Then following in 1979, the “Program of Japanese-Brazilian Cooperation for Cerrados Development – Prodecer” was initiated by both countries, resulting in the largest financial cooperation project in the agricultural field.

The agricultural development of Cerrados progressed very quickly, with soybean being the main crop of this process, and within a short time, this region became one of the world's major grains producing regions. Currently, Cerrados region produces 17 million tons of soybean (approximately 10% of the world production), 12.5 million tons of maize, and also became a major producer of cotton, coffee, fruits and meat cattle among other things. This production induced the development of poultry and swine husbandry, as well as agroindustry (soybean and cotton processing, meat processing and cooling plants, juice production, etc.), also allowing the development of other related sectors of the economy through the multiplier effect in the machinery, equipment and input sectors, also creating enormous business opportunities in the agribusiness sector.

- (1) Contribution of Japanese-Brazilian cooperation to the agricultural development of Cerrados region

The cooperation between the governments of Brazil and Japan contributed to the agricultural development of Cerrados region through the execution, over more than 20 years, of very important programs, both in technical and financial aspects. Technical Cooperation was carried out between EMBRAPA-Cerrados and JICA in the period 1977 to 1999, generating agricultural technology and assuring the sustainable development of the Cerrados region. In 1979, Prodecer was started to strengthen the economic cooperation between the two countries by focusing on the objectives of increasing food production, regional development and the expansion of world food supply. Prodecer was implemented in three stages, and the third one was completed in 2001. Through its

colonization method, this program implemented 21 pilot projects wherein 717 families were settled and 350,000 ha were transformed into productive areas. Prodecer was the main program of this cooperation for the Cerrados agricultural development, accomplishing direct and indirect results such as: (a) contribution to the world supply of food; (b) socio-economic improvement through the development of the Brazilian inland; (c) development of agribusiness and providing incentives to the regional development; and (d) diversification of grain exporting countries (to Japan, among others).

It can be said that Prodecer was the catalyst to the Cerrados development process since it developed the agricultural frontiers in the Cerrados region, in addition to contributing to the expansion of the agricultural area in its surroundings and to the development of the local community.

(2) Contribution to the international community and market

The expansion of agricultural production and of several other agribusiness sectors in the Cerrados region has contributed significantly to the balance of food commerce at the world level. For instance, the soybean production in the Cerrados region that represents around 10% of world production (the Brazilian production corresponds to 20% of total world production) is exerting strong influence on the international prices, contributing to the expansion of the livestock products production, with great benefits for the whole world.

(3) Contribution to the Brazilian agriculture and economy

The development of agricultural frontiers in the Cerrados region since the 80's is not only significantly increasing soybean and maize production, but also the production volume of feijão bean, coffee, cotton, etc. As a consequence, the national cultivation area and agricultural production area that was concentrated mainly in the South region of the Country has been expanded with new producing areas in the Center-West, Northeast and North regions of Cerrados. These regions are also calling attention to agribusiness opportunities, mainly those using soybean as a main raw material.

Currently, several inter-modal transportation corridors are being implemented and expanded with the aim to improve the commercialization/channeling of the agricultural production to domestic and foreign markets. In parallel, the agricultural development of Cerrados has also contributed to the development of the economy and local community, inducing the implementation of infrastructure such as roads, electric energy supply, etc., which attracted other persons and businesses, increasing the population and thus promoting the Brazilian's inland development.

(4) Contribution to Japan

Since Japan imports most of its food, the production volume increase due to the agricultural development of the Cerrados region was very significant. Japan imports

96% of its soybean which corresponds to 4.9 million tons per year. The volume of direct export of Brazilian soybean to Japan is only 500,000 tons, which at first seems to show only a small effect from Prodecet. However, the expansion of the Brazilian soybean exports contributes to the stabilization, and even the reduction of international prices of this product, thus greatly benefiting Japan that depends on imports for its domestic supply.

Simulation data indicates that, hypothetically, should the Brazilian soybean production be half its current level, the international market price would rise US\$38 per ton above today's level, obliging Japan to spend 22.3 billion yen per year more for the soybean imports. Since, however, the continuity of soybean production growth in the Cerrados region in the next years is expected, international prices will continue to stabilize/drop, thus increasing the benefit for Japan.

8.2 PRODECER CHARACTERISTICS AND CHALLENGES

(1) Prodecet characteristics

Prodecet was executed in three phases over 22 years, and played an important role among the bilateral agricultural development programs in the Cerrados region, and even outside this region.

Since its execution method is appraised highly, it can be utilized as a model for future international cooperation.

The main characteristics of Prodecet are as follows:

1. A joint program ("*national project*") between the public and private sectors of both countries.
2. A development program of colonization pilot farming settlements supported by cooperatives and implemented in the Cerrados agricultural frontier region. It aimed at the formation of medium-scale farms in the Cerrados region with international competitiveness, and as a principle only landless farmers were settled. These development pilot projects were the catalysts of the Cerrados development process.
3. Detailed planning aiming at efficient implementation, with specific signing of "*Project Agreement*"(P/A) and "*Loan Agreement*"(L/A) for each phase, besides a respective "*Record of discussion*" (R/D). This allowed both governments to jointly solve problems which arose.
4. A bi-national company was created, the Agricultural Promotion Company – CAMPO, for the efficient implementation of the Program. This company had the functions of planning, execution coordination and general supervision.
5. This Program paid great attention to the environment through the implementation of

innovative *condominium* or collective type forest preserves and by stimulating modern methods of soil conservation.

(2) Challenges of Prodecer

1) Indebtedness

After mid 80's, successive governments in Brazil introduced changes in the country's macroeconomic policy, aiming at the control of inflation and the restructuring of public finances through the adoption of high interest rate monetary policy, reduction of subsidies for the agricultural sector, etc. Although these policies managed to control the inflation, they worsened the problem of farmer indebtedness nationwide.

Since Prodecer was a program for opening agricultural frontiers through the settlement of farmers, it demanded a high initial investment that farmers obtained through loans.

Thus, the financing repayment amounts still due by the borrowers of Prodecer II and III rapidly increased in a disproportional way in comparison to the original debts; thus the repayment of the debts became practically impossible for these borrowers.

In view of this situation, the representatives of both governments were always seriously engaged in the search of solutions; however, they did not manage to devise a measure to definitely solve the problem before the completion of the program. The Brazilian government continues, even now, to search for a definite solution for the rural sector indebtedness problem as a whole, which includes the Prodecer producers.

2) Basic infrastructure

The provision of infrastructure for the projects is, in general, satisfactory. However, some projects still lack improvements and complementation of basic infrastructure, especially roads, electricity, etc. Measures need to be found to solve these problems.

3) CAMPO

During the execution of Prodecer, CAMPO satisfactorily performed its projects planning, coordination and supervision responsibilities, significantly contributing to the smooth implementation of the Program. For the future, this company is expected to contribute to projects that strengthen the Japanese-Brazilian relationship.

8.3 PERSPECTIVES OF THE AGRICULTURAL DEVELOPMENT IN THE CERRADOS REGION

One of the priority targets of PPA – Pluri-annual Plan of Investment of the Brazilian government – is the development of agribusiness. This will focus on the implementation of inter-modal transportation infrastructure in the Cerrados region, strengthening this region's products international competitiveness through the reduction of costs. Through

these measures, the position of the region will expand in the next years as a great agricultural exporter, making a larger contribution to the world supply of food and biomass products. For this, and bearing in mind the need for sustainable development, new agricultural technology oriented to crop diversification should be generated, and the enormous livestock and silviculture potential should be developed.

For the promotion and development of the soybean and other grains agribusiness, the strengthening of the product in the international market is indispensable. The major challenge is the reduction of the production channeling/commercialization costs with special attention to the tendencies and movements of the international market and to the issue of transgenics.

During the 22 years of Prodecer execution, there was a large influx of American and European multinational companies into the Cerrados region, mainly in the grain commerce, processing and export sectors, and in some cases a relatively small number of purchasers were responsible for the purchase of the whole regional soybean production.

However, Japanese companies are currently intensifying their participation in the region, purchasing soybean and cotton, and commercializing fertilizers and agricultural pesticides.

In conclusion, over the last decades, Brazil and Japan have strengthened their economic relationship, which also included private capital investments, through Prodecer and other Cooperation Programs for the Agricultural Development of Cerrados.

For the future, closer bilateral economic exchange is expected through agribusiness opportunities created in the Cerrados region.