Federative Republic of Brazil
Ministry Of Agriculture, Livestock and Supply

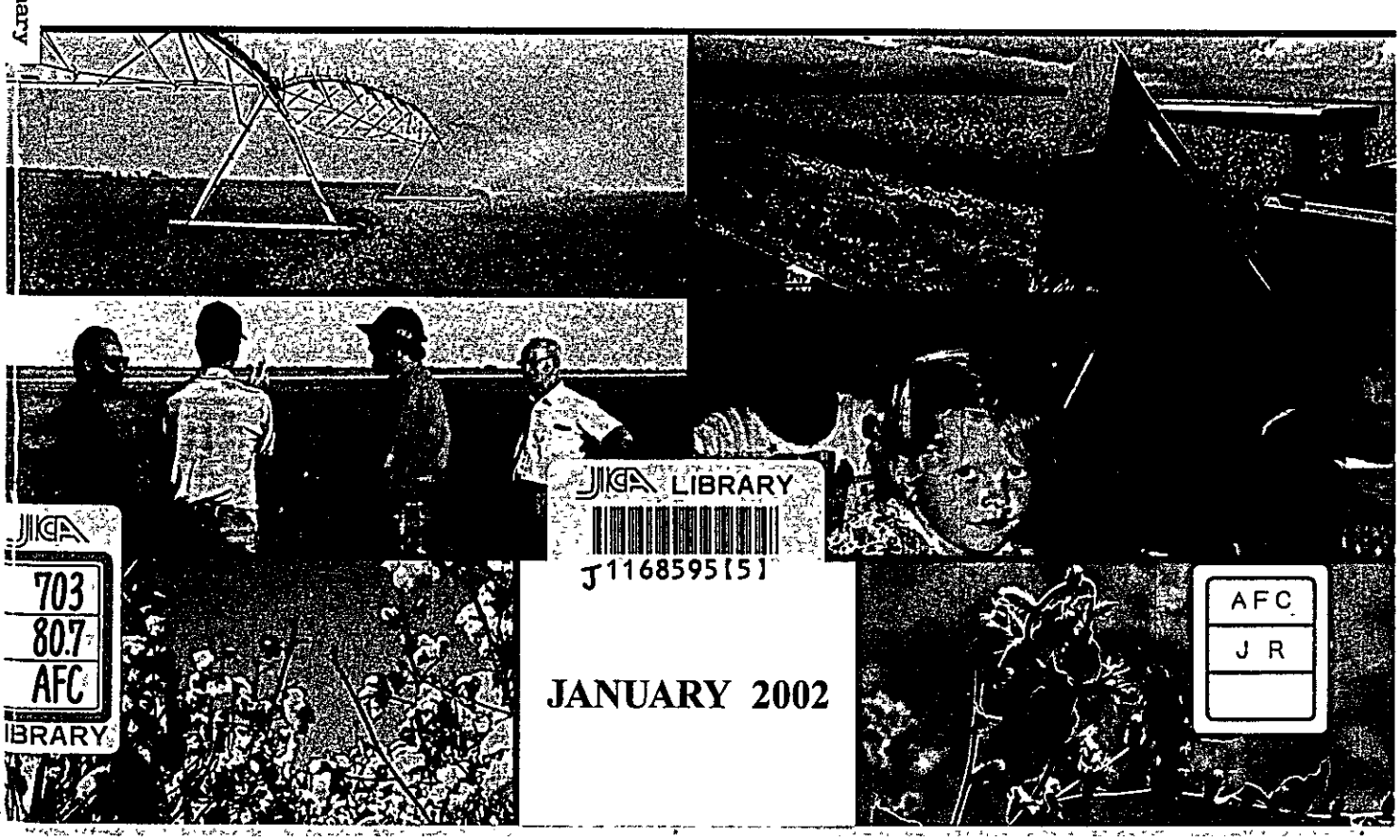
Japan International Cooperation Agency
(JICA)

JAPAN-BRAZIL AGRICULTURAL DEVELOPMENT COOPERATION PROGRAMS IN THE CERRADO REGION OF BRAZIL

JOINT EVALUATION STUDY

GENERAL REPORT

SUMMARY



JANUARY 2002

INTRODUCTION

In the cooperation for agricultural development of the Cerrados Region executed between Brazil and Japan, the Program of Japanese-Brazilian Cooperation for the Development of Cerrados – PRODECER is an outstanding case worthy to be recorded in the history of friendship between the two countries.

Brazil and Japan started Prodecer with the major global and strategic objectives of simultaneously developing technical and financial cooperation programs, of engaging public and private sectors, and of increasing grain production in Cerrados and the world food supply.

In Prodecer, five years was spent to design the detailed execution plan. This was the largest scale of program in the whole history of agricultural cooperation between the two countries, with an execution period of more than twenty years. Through demonstration and diffusion effects, it decisively contributed to the increase of agricultural productivity and production, as well as to the development of the Cerrados Region, transforming it within a period of a quarter of a century into one of the major grains producing regions in the world.

The Ministry of Agriculture, Livestock and Supply of Brazil – Mapa – and the Japan International Cooperation Agency – JICA – have evaluated this cooperation through precise and detailed surveys in order to understand and to analyze results, achievements and impacts. For this, consultative committees were installed in both countries and they analyzed, corrected and complemented each other on the report pre-designed by a Work Group formed by technical staff of both countries.

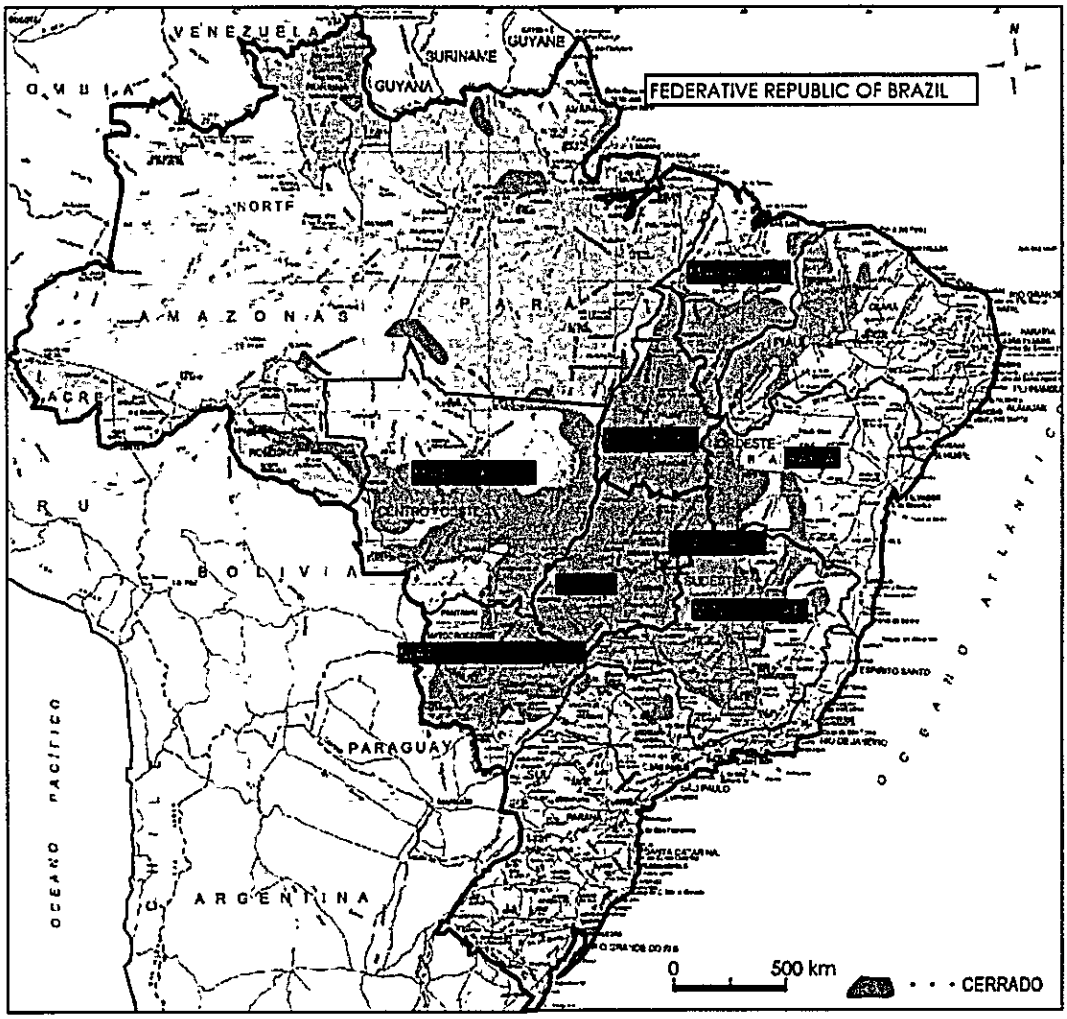
This document thus summarizes the product of a joint work, showing the efforts of all Brazilian and Japanese individuals who participated in this cooperation.

The Ministry of Agriculture, Livestock and Supply and the Japan International Cooperation Agency are very sure that this report will be useful for future generations of both countries, and represent a very important document for the international community.

2002, January

Takao Kawakami
President
Japan International Cooperation Agency

Marcus Vinicius Pratini de Moraes
Minister
Ministry of Agriculture, Livestock and Supply



Location of Japan-Brazil Agricultural Development Cooperation Programs in the Cerrado Region of Brazil

Total Area of "Cerrado": 204,000,000 ha
1) Reserve Area 77,000,000 ha
2) Arable Land 127,000,000 ha

Pastures	*45,000,000 ha*
Annual Crops	*10,000,000 ha*
Perennial Crops and Forestry	*2,000,000 ha*
Agricultural Frontier	*70,000,000 ha*

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A GENERAL ASPECTS OF THE STUDY

1 CONTEXT AND BACKGROUND OF THE STUDY

In 1979, Brazil and Japan started the Program of Japanese-Brazilian Cooperation for the agricultural development of Cerrado (PRODECER) as a national joint project carried out by both the private and public sectors. Phases I, II and III of this program have been implemented and the program itself was completed in March 2001. At the completion of Phase III, both Countries' governments decided to carry out the "study of joint evaluation of the Japanese-Brazilian cooperation programs for the agricultural development of Cerrado" in order to confirm, from the macro point of view, the results obtained during more than 20 years of program implementations and thus to record them in the form of a report.

The detailed rules for the execution of the Study are included in the document called S/W (Scope of Works) signed by both countries in October 2000. For the Study execution, the Japanese side installed, through JICA, the Japanese Consultative Committee, and in turn the Brazilian side installed the Brazilian Consultative Committee, through a Decree issued by the Ministry of Agriculture. In such fashion, the "JOINT JAPANESE-BRAZILIAN CONSULTATIVE COMMITTEE" was structured through the merger of these two committees, thus officially starting the survey works.

The Study was finished in January 2002, with the preparation of the "General Report of the Joint Evaluation," after two field survey trips to Brazil and three meetings of the Joint Japanese-Brazilian Advisory Committee, according to the aforementioned S/W.

2 OBJECTIVES OF THE STUDY

(1) "CONFIRMATION OF THE PRODECER RESULTS AND CERRADO AGRICULTURAL DEVELOPMENT"

To analyze and to evaluate the Cerrado agricultural development results and the role that the Japanese-Brazilian cooperation, which had PRODECER as the main project, played in the Cerrado region agricultural development process. After confirmation by both sides of these analysis/evaluation results, a report shall be prepared for the record.

(2) "PREPARATION OF MATERIALS FOR INFORMATION IN BRAZIL, JAPAN AND OTHER COUNTRIES"

The results confirmed by the Study shall be utilized in Japan to inform how this cooperation carried out by ODA (Official Development Assistance), has contributed for the Brazilian and Japanese national interests. In Brazil, where the cooperation was carried out, the results and their multiplier effects shall be informed to the population aiming at deepening the understanding about this subject. For other countries, this information shall be utilized to show how this cooperation contributed for the stability of world food supply.

3 SCOPE OF THE STUDY

This Study mainly focuses on the analysis and evaluation of the impact of PRODECER. Its contents are diversified covering the analysis of the historical background of the Cerrado development process as well as its future development task.

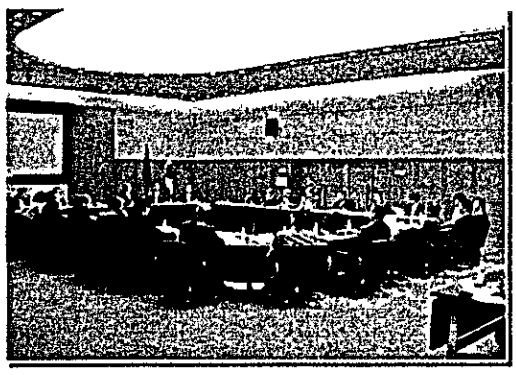
Background of the Study

Phase	Years	Background of the study	Reports
Phase I	Oct./2000	Agreement and signature of the scope of works.	
	Dec./2000	Implementation of the general survey of the Impact Study.	
	Mar./2001	1st Meeting of the Japanese-Brazilian Advisory Committee. (Brasilia)	Preliminary Report of the Joint Evaluation Study .
Phase II	Aug./2001	2nd Meeting of the Japanese-Brazilian Advisory Committee. (Brasilia)	
		Japanese-Brazilian Joint Survey.	
	Dec./2001	3rd Meeting of the Japanese-Brazilian Advisory Committee. (Tokyo)	Draft Report of the Joint Evaluation Study .
	Jan./2002	Correction of Report.	General Report of the Joint Evaluation Study.

Main Topics of the Study

- Context and factors of Cerrado agricultural development
- Contents and achievements of PRODECER
- Other Japanese-Brazilian cooperation projects for Cerrado and their results
- Present conditions of Cerrado agricultural development and project impacts
- Evaluation of Japanese-Brazilian cooperation for Cerrado agricultural development
- Future perspectives for Cerrado development

Agreement and signature of the scope of works



Meeting of the Japanese-Brazilian Advisory Committee

1 CLASSIFICATION OF CERRADO

The word Cerrado originates from the Portuguese "cerradão" which means "something dense," being also the nomenclature of a vegetation type. However, Cerrado flora presents a very large diversity from region to region. In general, Cerrado vegetation is classified into 5 types: namely, 1) Cerradão, 2) Cerrado, 3) Campo Cerrado (Cerrado Field), 4) Campo Sujo (Dirty Field), and 5) Campo Limpo (Clean Field). This classification is based on the scale of trees, on their trunk diameter and on the diversified density (Note: in the classification figure, type-3 vegetation is included together with type-2).

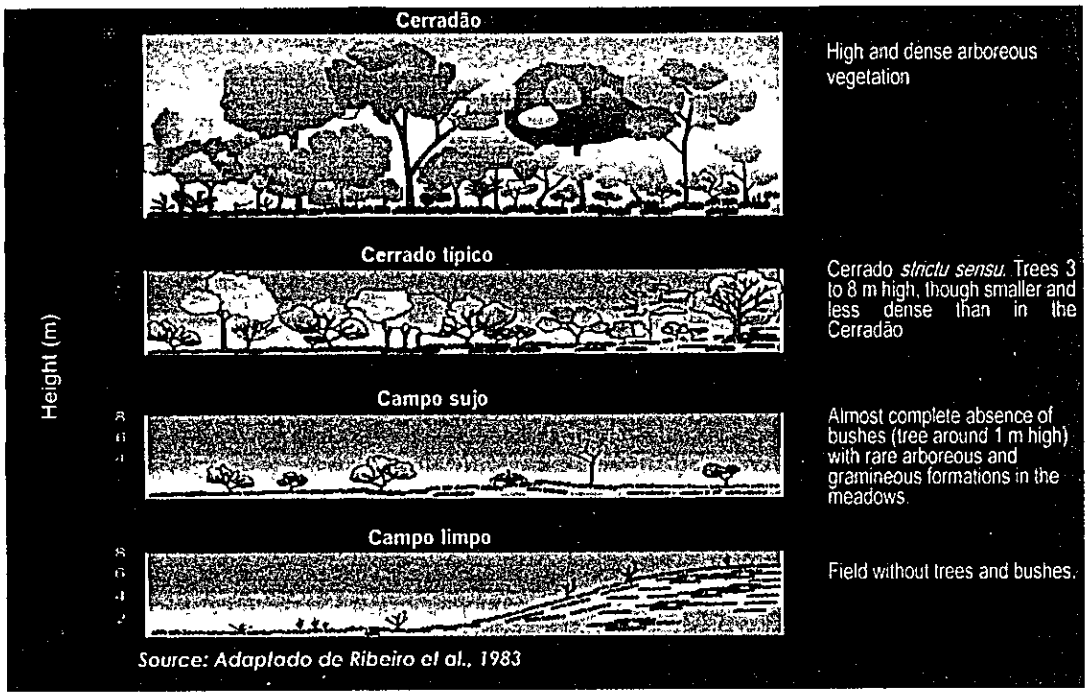
2 REGIONAL DISTRIBUTION OF CERRADO

The total area of the Cerrado region which is spread out in the Brazilian Center-West Region is approximately 200 million ha (around 5.5 times the area of Japan). The land of this large area originally presented strong acidity mainly due to the problems deriving from the existence of aluminum and the deficiency of chemical nutrients and was considered for a long time to be unproductive from the agronomical point of view. Nevertheless, through appropriate soil correction combined with a compensatory fertilization, these large areas were turned into productive ones. With the implementation of production infrastructure, it is thought that 120 million ha of Cerrado can be incorporated into the productive process.

Cerrado is basically concentrated in the large center-west region of Brazil, covering a total area of approximately 204 million hectares. The major concentration is in the State of Mato Grosso, representing 21% of the Cerrado total area, followed by the States of Minas Gerais and Goiás with 19% and 17%, respectively. The Brazilian Cerrado concentrates in these three States which jointly represent almost 60% of its total area.

Scenery of Cerrado before the development

Cerrado Classification by Vegetation Type



Source: Adaptado de Ribeiro et al., 1983

Distribution of Cerrado Area by Each Region

Region	Cerrado Area (ha)	%	Share in the national territory total area (%)
1. SOUTHEAST			
Minas Gerais (MG)	384,366	18.80	4.52
Sub-total	384,366	18.80	4.52
2.CENTER-WEST			
Golás (GO)	355,092	17.37	4.17
Mato Grosso (MT)	422,125	20.65	4.96
Mato Grosso do Sul (MS)	206,463	10.10	2.43
Distrito Federal (DF)	5,771	0.28	0.07
Sub-total	989,451	48.40	11.62
3. NORTHEAST			
Maranhão (MA)	140,702	6.88	1.65
Bahia (BA)	82,597	4.04	0.97
Ceará (CE)	2,356	0.12	0.03
Piauí (PI)	152,388	7.45	1.79
Sub-total	378,043	18.49	4.44
4. NORTH			
Tocantins (TO)	249,773	12.21	2.93
Rondônia (RO)	31,973	1.56	0.38
Pará (PA)	11,070	0.54	0.13
Sub-total	292,816	14.31	3.44
TOTAL (Cerrado)	2.044.676	100.00	24.02
BRAZIL	8.511,996		

Source: *Sinopse preliminar do censo demográfico: Brasil*, Rio de Janeiro, FIBGE, v. 6, n.o. 1, 1991.

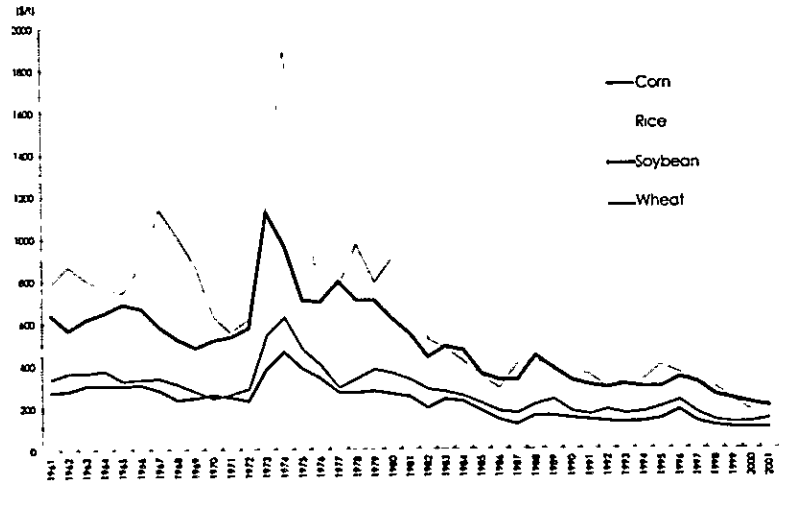
1 THE BEGINNING OF THE CERRADO AGRICULTURAL DEVELOPMENT

In the 40's, vegetation research of the Cerrado really was implemented by vegetation scholars of Sao Paulo university. As a result, it has been recognized that Cerrado is useful for agriculture gradually. Especially, the possibilities of agricultural development in the Cerrado by soil improvement, which correct chemical conditions of the soil was clarified. In 1973, the Plan of Guided Settlement of the Alto Paranaíba (PADAP) was carried out in the Alto Paranaíba region. It was a pioneer program of guided settlement, aiming at the intensive development of Cerrado. The Brazilian government designed the Cerrado Development Program (POLOCENTRO) which was started in 1975. And the, Brazilian government established "Cerrado Agricultural Research Center (CPAC)" in 1975, as a part of the Brazilian Agricultural Research Agency (EMBRAPA).

2 THE BEGINNING OF JAPANESE-BRAZILIAN COOPERATION PROJECTS FOR THE CERRADO AGRICULTURAL DEVELOPMENT

In the first half of the 70's, the expansion of food production was an important task in Brazil. Since domestic food supply was not enough, it was necessary to promote exportation of agricultural production for the improvement of economic crisis. On the other hand, food was lacking all over the world because of oil crisis and abnormal weather. Japan, was also importing foods and was interested in stability of food supply in the world and expansion of food production by agricultural cooperation development to developing countries. In this situation, the Japanese-Brazilian Cooperation Program for the Cerrado Development (PRODECER), which was started in 1979, on some objectives such as, expansion of food production in Brazil, promotion of regional development, contribution of food supply expansion to the world, and promotion of Japan-Brazil economic exchange and friendship.

Fluctuation of main crop and soybean prices: In the 60' and the '70, price fluctuation was too high. At that time, the salary of international level was low. Accordingly actual price was 3 or 4 times as high as the recent one. And in the first half of the '70s, the price was going up 2or 3 times rapidly. In the recent years, the international market price is kept at the lowest level. In this situation, when the price is going up 20-30%, it becomes big news. It can imagine easily that people at that time was afraid of the hyperinflation of agricultural production price.



Sources: 1) IMF, International Financial Statistics Yearbook, 1999, 2) USDA, WASDE Report 2000

3 HISTORY OF THE PRODECER EXECUTION

PRODECER was effectively started after the release of the joint communication between both the Brazilian and Japanese governments in 1974. Five years were spent for the design of preliminary studies, planning of the project structure, structuring of the financing and administration system, etc., carried out by the governments and private sectors of both countries. After this period, the implementation finally started in 1979, with the PRODECER I.

A summarized history of the period between the release of the joint communication and the effective start of PRODECER is presented below.

RELEASE OF THE JOINT COMMUNICATION

In September 1974, the "joint communication" of the Japanese-Brazilian cooperation for the agricultural development was signed.

On this communication, the governments and private sectors of both countries promoted, through mutual cooperation, the increase of food production, the regional development of Brazilian inland, and the increase of the world's food supply.

DESIGN OF THE PRELIMINARY STUDY

After the joint communication, the governments of both countries preliminarily discussed issues related to the cooperation for research. In parallel, the study of the basis for the promotion of Cerrado agricultural development was carried out.

SIGNATURES OF R/D

After this long process, in September 1976, the R/D (Record of Discussion) regarding the final scope of PRODECER was signed when the President Geisel visited Japan. During the discussion of this R/D, the execution of the "pilot project" on a 50,000 ha area was decided.

The possible expansion of the program would be discussed between both sides after the evaluation of this pilot project's results.

ESTABLISHMENT OF THE EXECUTION STRUCTURE

Following the signature of the R/D, both governments actually studied, within the program scope, the establishment of the PRODECER execution structure. In March 1978, Japanese side created an investment company called JADECO, for the execution of PRODECER. In October of the same year, a company called BRASAGRO was created in Brazil with the same purpose.

In November of the same year, the Company of Agricultural Promotion (CAMPO) was funded as the coordinator and executor organization of PRODECER, with the participation of BRASAGRO with 51% of the company's shares, and JADECO with the remaining 49%.

SIGNATURES OF P/A, B/A AND L/A

In 1979, the P/A (Project Agreement) that details the project execution scope was signed. The B/A (Basic Agreement) with similar contents to the P/A, and the L/A (Loan Agreement) defining the foreign loan and its conditions were also signed.

4 ACHIEVEMENT OF PRODECER

With the establishment of an execution structure for PRODECER[1], the following projects were implemented: PRODECER I Pilot project, from 1979 to 1982, PRODECER II Pilot Project and PRODECER Full Scale Project, from 1985 to 1993, and PRODECER III Pilot Project which was started in 1995 and was finished in March 2001. The total cost of PRODECER is estimated as US$562.9 million, transforming approximately 345,000 ha of rough land into productive land.

General aspects of the 3 phases' execution are presented below:

PRODECER I Pilot Project (1979 - 1983)

In this 1st phase of the program, 3 areas in the Minas Gerais State were selected due to their relative proximity to consumer centers, with good infrastructure and satisfactory organization of technical assistance and rural extension services. 60,000 ha were incorporated for the production of soybean, maize, rice, coffee, etc.

The total cost of the project was US$50 million, with 92 setteld families. In this pilot project, which was implemented in a traditional Cerrado area, two methods for opening the agricultural frontier were tried: a) colonization type, and b) agricultural company type (plantation).When the "Japanese-Brazil Joint Evaluation Study" was carried out, in 1982, the colonization type was judged more appropriate.

As for the legal reserves, PRODECER has adopted two plans of actions: to establish individual preserves inside each lot and community preserves. The community preserves gathers the individual reserves into one large area, conserving the natural vegetation in a larger unit. It also avoids the possibility that the preserve accidentally becomes a cultivated area. The same model was adopted in the PROCEDER II and III.

PRODECER II Pilot Project (1985 - 1990), Full Scale Project (1985 - 1993)

This phase was executed based on the good performance of the PRODECER I Pilot project executions. The characteristic of PRODECER II Pilot was the execution in two areas (4 projects) of Cerrado with different natural conditions: in Mato Grosso State which is influenced by the Amazon, and in Bahia State which is influenced by the semi-arid region of the Caatinga.

In this phase, pilot projects were executed with the objective of developing appropriate technologies to the respective climatic conditions. The total covered area was 65,000 ha, where agricultural activities combining livestock husbandry and perennial crops with basic crops such as soybean and maize were planned. The project total cost was approximately US$100 million, and 165 families were settled. The main difference between this phase and the first one is that in this one the cooperatives carried out the task of land acquisition and its transfer to the settlers, which was carried out in phase I by CAMPO.

In the same period, PRODECER FULL SCALE was executed with resources for General Projects financed by JBIC (formerly OECF) in 11 areas of the States of Minas Gerais, Goiás and Mato Grosso do Sul, in which the results obtained in PRODECER I areas were considered to be applicable. The coverage area was 140,000 ha, with 380 settled families and at a total cost of US$275 million.

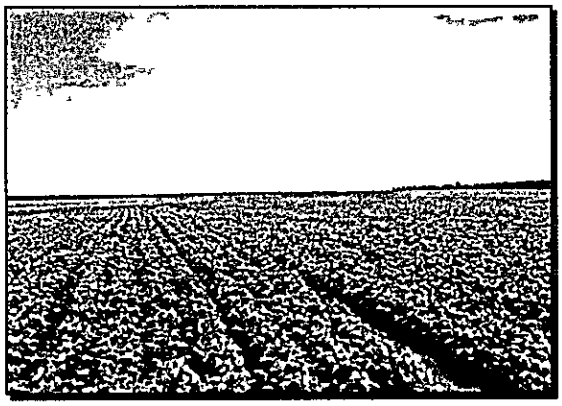
[1] In the pilot projects, resources for investment financed by JICA were utilized, while for the full scale projects, resources for general projects financed by JBIC (former OECF) were utilized.

PRODECER III Pilot Project (1995 - 2001)

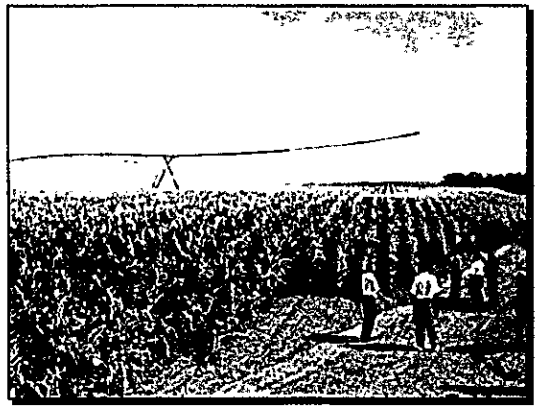
This phase was executed in the Municipality of Pedro Afonso, in Tocantins State, and in the Municipality of Balsas, in Maranhão State, both regions located in low latitudes and that are at the north of the projects so far implemented. This phase of the program was executed aiming at the consolidation of the rural administration technologies, with the introduction of irrigation and new plant varieties under climatic conditions in which the daylight period during the whole year does not vary so much.

The coverage area of this phase was 80,000 ha with 80 settled families and at a total cost of US$137.9 million. Each property has 1,000 ha, more than 2 times the area of the other project properties of Phases I and II.

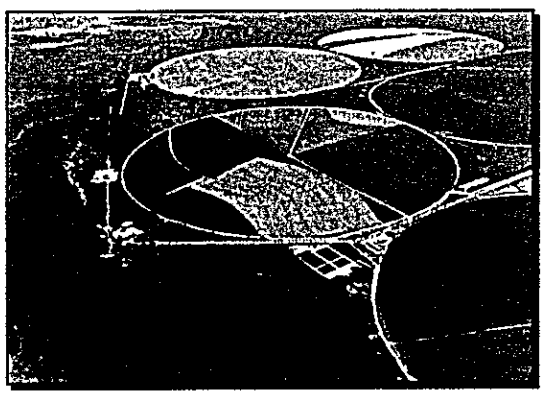
The main characteristic of this Phase is the introduction of irrigation equipment in the plots, based on the experiences of the former projects' execution, aiming at economic/administrative stabilization of the properties. Apart from this, another important characteristic is the natural preservation area, corresponding to 50% of the property, while the preservation areas of Phases I and II corresponded to a little more than 20% of the property. Most of this area was reserved as a collective preservation area.



Soybean cultivating field after development



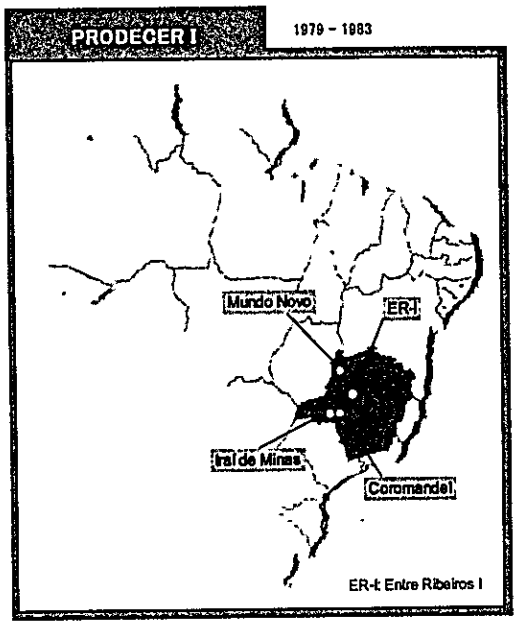
Corn cultivation by center pivot irrigation

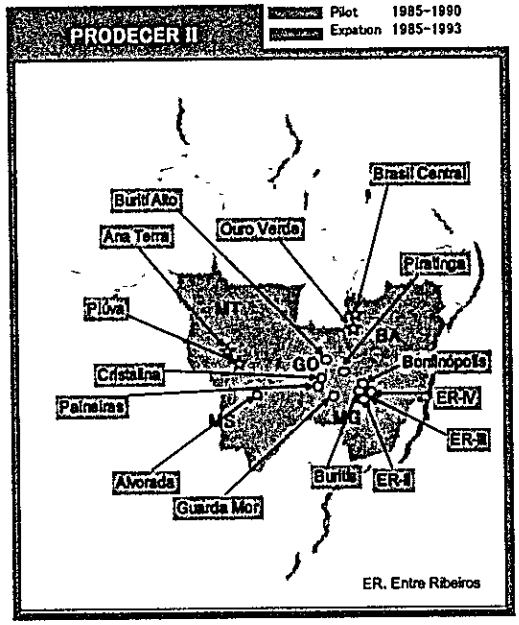


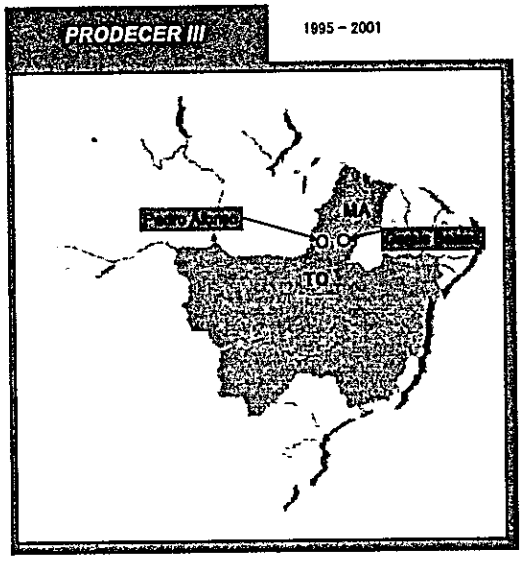
Soybean cultivation by center pivot irrigation

Producers in the Cerrado (Gaúcho who is from Southern Brazil, and a Japanese-Brazilian producer)

General Aspects of PRODECER







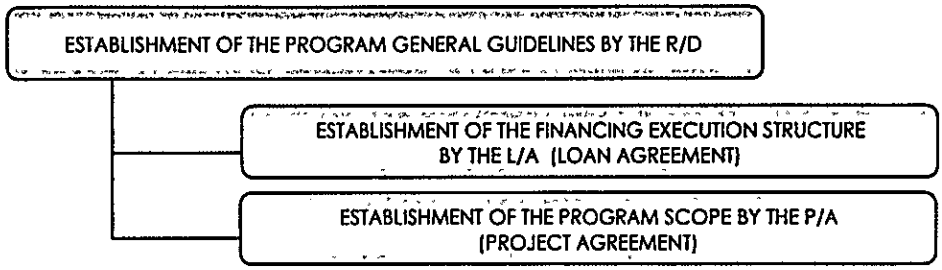
Execution of PRODECER I、II、III

	Area(ha)	Producer	Investment, US$ million (100million yen)		
			Brazil	Japan	Total
PRODECER I	60,000	92	25 (51)	25 (51)	50 (102)
MG Iraí de Minas	9,000	26			
Mundo Novo	23,000	48			
Coromandel	6,000	16			
Entre Ribeiros I	10,315	41			
PRODECER II	65,000	166	50 (64)	50 (64)	100 (128)
BA Ouro Verde	16,404	46			
Brasil Central	15,028	38			
MT Ana Terra	18,600	40			
Piuva	16,717	38			
PRODECER III (Expention)	140,000	360	137.5 (157)	137.5 (157)	275 (314)
MG Entre Ribeiros II	10,843	28			
Entre Ribeiros III	5,953	20			
Entre Ribeiros IV	3,984	10			
Guarda Mor	11,816	37			
Bonfinopolis	18,588	49			
Piratinga	20,843	53			
Buriti	17,004	42			
GO Paineiras	8,274	29			
Cristalina	6,115	16			
Buriti Alto	15,816	40			
MS Alvorada	22,001	56			
[illegible]	[illegible]	[illegible]	[illegible] (51)	[illegible] (79)	[illegible] (130)
MA [illegible]	[illegible]	[illegible]			
TO [illegible]	[illegible]	[illegible]			
TOTAL	345,000	717	267.7 (333)	295.2 (351)	562.9 (684)

5 CHARACTERISTICS OF PRODECER EXECUTION

(1) PROGRAM BASED ON THE AGREEMENTS

Before the start of each phase of PRODECER, three agreements were signed between both countries with guidelines carried towards oriented program implementation. These agreements are presented below.



** In Phase I of PRODECER, the document called B/A (Basic Agreement) was also signed, but was not used anymore in Phase II since its contents were similar to P/A contents.*

The P/A is the base of the development conception of each PRODECER phase and clearly establishes the responsibilities of the federal government, Stage governments and financing agencies, aiming at the efficient execution of the project.

(2) METHOD OF PILOT DEVELOPMENT THROUGH COLONIZATION BY MEDIUM-SCALE FARMERS

The goal of PRODECER was the creation of agricultural development pilot projects in the new agricultural frontiers of the Cerrado region. Its basic guideline fundamentally aimed at the settlement of medium-scale family farmers who did not own their own land. Thus, the program presented the following characteristics:

a) The producers acquired everything: land, agricultural machinery, residence, production facilities, besides resources for covering production costs, etc.

b) A high initial investment was necessary.

c) Most of the resources came from financing.

d) There was an increasing amount of attention paid to the environment during the occupation process.

e) Establishment of social economic infrastructure by State government and the municipality was necessary.

(3) CREATION OF CAMPO AS THE COORDINATOR OF PROGRAM EXECUTION

Company of Agricultural Promotion(CAMPO) was founded for the coordination of Program execution, supervision of the release of resources, selection of participants, technical assistance, general planning of the program, etc. CAMPO played a fundamental role in the execution of PRODECER and especially for the coordination of concerned organizations of both countries and for the strengthening of their relationship.

(4) COLONIZATION METHOD THROUGH COOPERATIVES

The selection of producers was carried out mainly by the cooperatives, which in turn were selected among the best and more structured ones in the country. The cooperatives effectively supported the producers in the acquisition of land, supply of inputs and machinery, commercialization services, production storage and processing, technical assistance, etc.

(5) PROGRAM OF ECONOMIC COOPERATION RELATIONSHIP WITH TECHNICAL COOPERATION

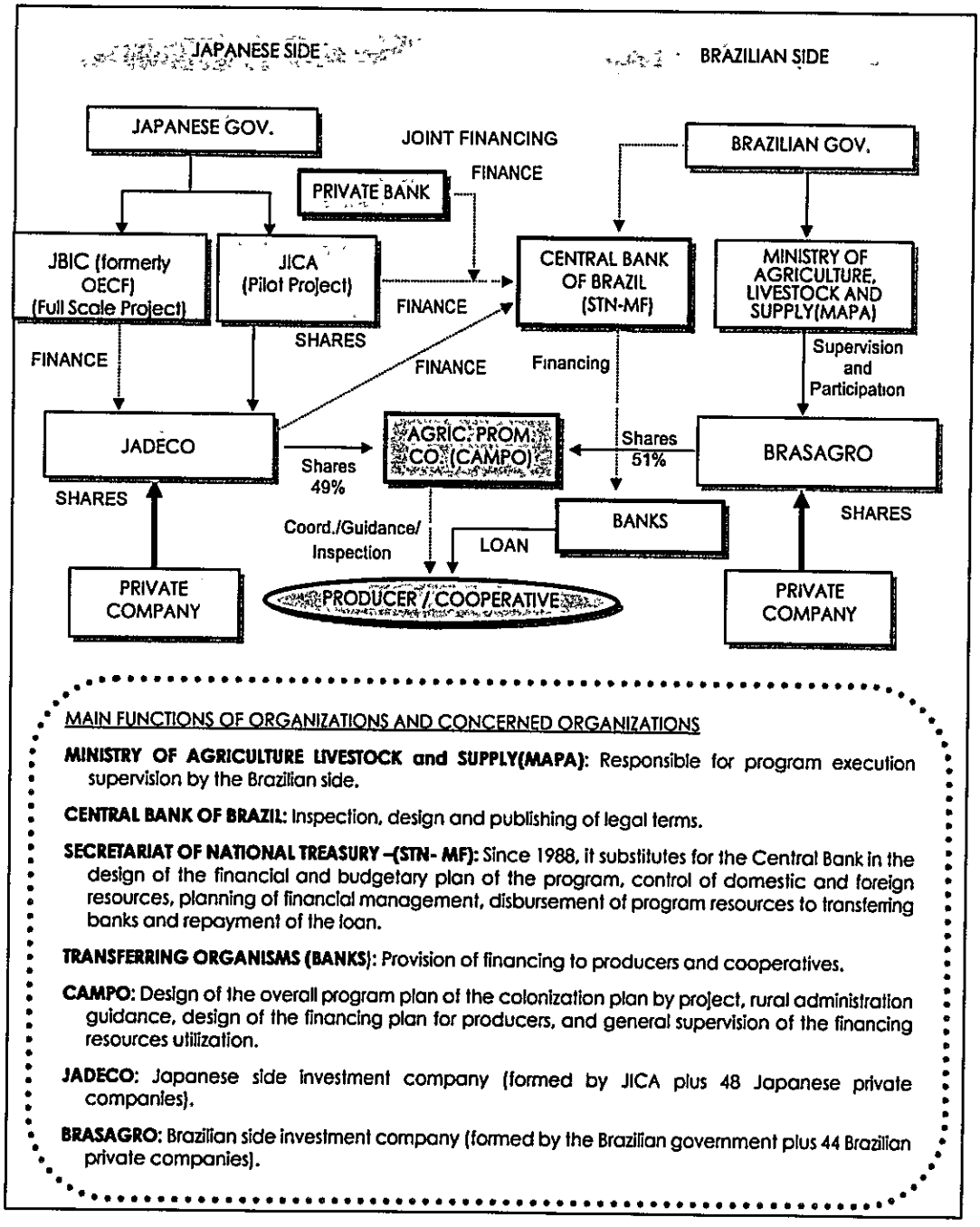
In order to facilitate agricultural production in the Cerrado region with its high acidic and low natural fertility soils, the development of specific agricultural technology, diffusion of soil correction and management techniques, selection of crops and varieties, etc., were fundamental, together with the necessary resources for their development. In PRODECER, these resources for development were allocated simultaneously as part of the execution of technical cooperation projects.

(6) ESTABLISHMENT OF JAPANESE-BRAZILIAN COOPERATION FINANCING SCHEME

The allocation of low interest rate financing to the producers was planned as fundamental part of the PRODECER concept. Therefore, in the pilot projects financed by JICA, resources from the Fund of Investment and Financing, directly transferred to the Central Bank of Brazil, were utilized. On the other hand, the financing carried out by JBIC (formerly OECF) had resources coming from the "Fund of Financing for Projects in General" and were lent to the Central Bank of Brazil through JADECO, all at very favorable conditions. The Government of Brazil assumed the currency exchange risk that could fall on the Japanese resources, thus assuring the payment of interest rates and devolution of the principal. Consequently, through this special financing and resources release scheme, the reduction of interest rates was made viable.

As we have seen, PRODECER resources were applied to many items, but mainly for: land acquisition, fixed investments (clearance of area, soil correction, property and cooperatives infrastructure, etc.); acquisition of machinery and attachments, animals; agricultural production cost (seeds, fertilizers, agricultural pesticides, etc.). These resources were supplied to the producers and cooperatives through the transferring banks as already mentioned.

Financing scheme of PRODECER and the Functions of Concerned Organizations



MAIN FUNCTIONS OF ORGANIZATIONS AND CONCERNED ORGANIZATIONS

MINISTRY OF AGRICULTURE LIVESTOCK and SUPPLY(MAPA): Responsible for program execution supervision by the Brazilian side.

CENTRAL BANK OF BRAZIL: Inspection, design and publishing of legal terms.

SECRETARIAT OF NATIONAL TREASURY –(STN- MF): Since 1988, it substitutes for the Central Bank in the design of the financial and budgetary plan of the program, control of domestic and foreign resources, planning of financial management, disbursement of program resources to transferring banks and repayment of the loan.

TRANSFERRING ORGANISMS (BANKS): Provision of financing to producers and cooperatives.

CAMPO: Design of the overall program plan of the colonization plan by project, rural administration guidance, design of the financing plan for producers, and general supervision of the financing resources utilization.

JADECO: Japanese side investment company (formed by JICA plus 48 Japanese private companies).

BRASAGRO: Brazilian side investment company (formed by the Brazilian government plus 44 Brazilian private companies).

6 RESULTS OF THE AGRICULTURAL PRODUCTION OF PRODECER

(1) AGRICULTURARL PRODUCTION

The main crops of PRODECER by cultivated area are: soybean, maize, feijão bean and rice. Soybean prices suffer variation mainly due to the influence of international prices, but it is still the core crop of the PRODECER cultivation system. There are projects with a large number of irrigation equipment, allowing the introduction of other crops, as well as coffee and more recently cotton crops.

Evolution of Cultivation Area and Production Volume of Main Crops in PRODECER

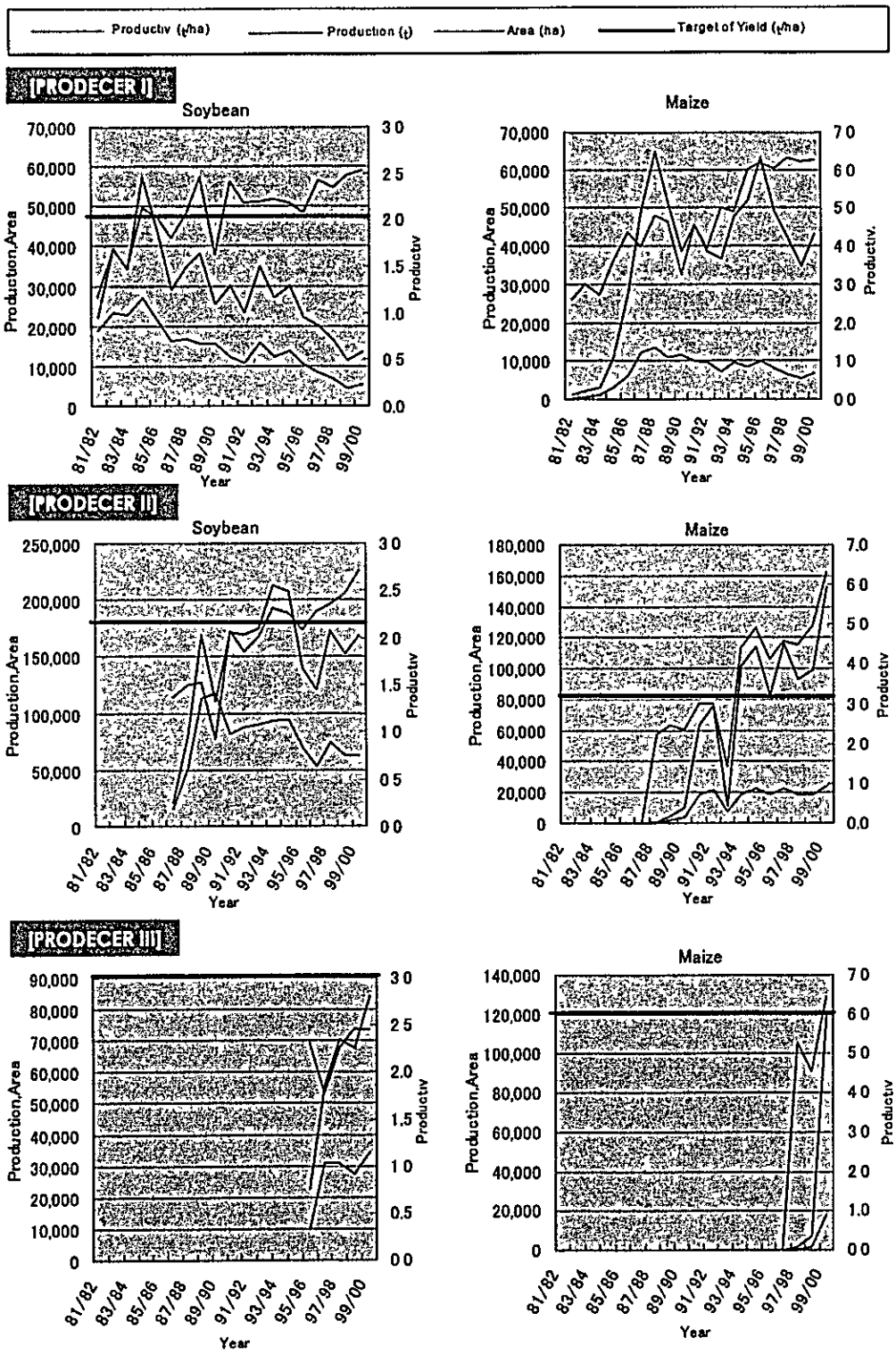
Year	soybean		maize		feijão bean		rice	
	area (ha)	prod (ton)	area (ha)	prod (ton)	area (ha)	prod (ton)	area (ha)	prod (ton)
81/82	18,977	22,240	447	1,164	-	-	970	1,620
82/83	23,620	39,661	700	2,129	-	-	3,119	6,206
83/84	22,941	34,254	1,200	3,299	451	671	3,285	2,154
84/85	27,072	57,635	3,004	10,891	264	470	4,467	7,629
85/86	21,553	43,627	6,344	27,834	-	-	4,888	7,301
86/87	32,544	50,086	12,277	49,219	-	-	15,325	13,199
87/88	68,475	114,934	13,812	65,997	198	136	22,907	28,392
88/89	128,777	208,238	13,060	56,704	1,079	2,103	4,433	6,632
89/90	133,231	135,857	15,900	49,013	2,540	3,549	2,668	3,141
90/91	94,216	201,706	28,569	109,636	7,924	11,162	16,899	25,443
91/92	98,978	192,959	31,328	115,097	5,082	5,080	22,904	30,749
92/93	106,382	209,277	15,305	48,012	380	526	12,777	49,736
93/94	105,016	240,637	28,403	149,024	1,369	2,232	4,110	6,704
94/95	107,850	237,901	31,520	165,950	5,832	9,617	4,611	8,785
95/96	90,347	185,032	28,919	146,006	3,353	6,397	1,605	3,678
96/97	92,940	196,935	30,958	165,447	4,101	7,568	6,785	12,185
97/98	112,675	259,842	25,817	137,808	6,166	10,528	6,943	13,529
98/99	94,504	231,662	25,726	141,818	9,594	14,144	11,192	30,273
99/00	96,679	257,274	33,622	210,087	9,280	20,176	8,924	30,234

Source: 1) Dados Basicos dos Projetos de PRODECER, CAMPO, 2000
2) Dados e Informações Gerais, PRODECER, CAMPO, 1997,1998,2000

(2) EVOLUTION OF AGRICULTURAL PRODUCTION BY EACH PHASE

In Phase I and II, the production volume, productivity and of cultivation area for soybean and maize, which are the two main crops of PRODECER, surpassed the initially established productivity targets (In Phase I, the target yield of maize was not set). In Phase III, the productivity also shows a growth trend, year by year.

Annual Evolution of Cultivation Area, Production Volume and Productivity of Main Crops, in each phase of PRODECER



(3) ISSUES OF INDEBTEDNESS

During the period from the beginning of 1980 to the end of 1990, Brazil went through eight national economic plans. The frequent changes in the country's economic policy disturbed the economy and highly influenced the country's agricultural development, including in the Cerrado region. It is noteworthy that these sudden macro-economic changes not only disturbed the performance of farmers in the whole country, but also the performance of cooperatives, leading several of them to liquidation.

The PRODECER for the opening agricultural frontiers in the Cerrado region demanded a high volume of resources for investment. The producers obtained most of these initial resources through financing. At present, except for PRODECER I producers and some few exceptions in other projects, all the other producers are highly indebted and most of them are not able to repay the loans obtained through PRODECER. The main reason for this situation, which also affects other Brazilian farmers, is the high burden of interest rates due to the country's macro-economic circumstances during a great part of the project implementation period.

In the attempt to reduce these difficulties and to help producers and cooperatives, the Brazilian Government designed and released several measures such as "securitization", "PESA", " RECOOP (Program of Cooperatives Recuperation)", and is still now trying to find solutions to the agricultural indebtedness problem.

PRODECER Producers' houses and farms

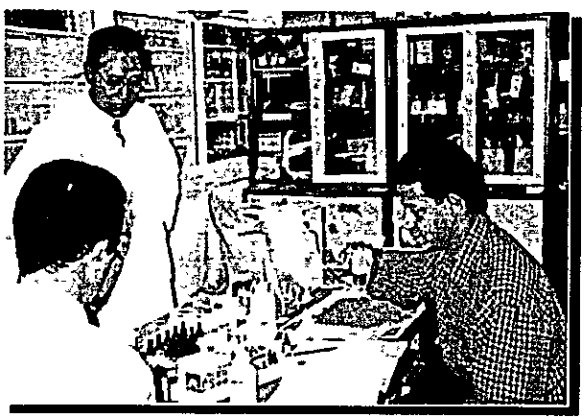
7 TECHNICAL COOPERRATION AND JOINT RESEARCH

One of the PRODECER characteristics, was concomitant execution of technical cooperation projects together with the main financial cooperation project. The first technical cooperation for the Cerrado region was started in 1977 between JICA and EMBRAPA-Cerrado. CPAC is still working as the main research organization in the Cerrado. And JIRCAS (Japan International Center for Agricultural Sciences) and EMBRAPA, have been carrying out joint research since 1972. These technical cooperation and joint research, developed agricultural technique for agricultural development in Cerrado, contributed to increase of crop production.

(1) TECHNICAL COOPERATION (JICA / CPAC)

The way that the Cerrado region, which was considered unproductive for a long time, could start to produce, was fundamentally through the execution of research and experiments aiming at the development and consolidation of rural management, cultivation, selection of crops and varieties, soil correction, among other techniques. The concomitant granting of financing for production was also very important. Therefore, with the objective to promote the development of Cerrado region in an efficient and rational way, the governments of both countries, Brazil and Japan, decided to carry out technical cooperation projects.

PRODECER Producers: Discussing about soybean growing



Water Quality Analysis training under technical transfer program

1) TECHNICAL-SCIENTIFIC SUPPORT PROJECT FOR AGRICULTURAL DEVELOPMENT OF CERRADO

Project was implemented in two phases.
The first phase (1977~1985) of the technical cooperation project called "Project of Technical-Scientific Support for the Agricultural Development of Cerrado" was executed with the strong support of EMBRAPA (Brazilian Company of Agricultural Research), through the EMBRAPA-Cerrado division. The research themes were as follows: soil, climate and utilization of Cerrado vegetal resources. Basic techniques for the rational utilization of the soil-plant-water system and grain cultivation were developed, aiming at providing the technical support for the agricultural development of Cerrado.

As the result of Brazilian government will, expressed by the request for the technical cooperation aiming at the promotion of the agricultural development of the PRODECER II Pilot regions in Mato Grosso and Bahia States, the second phase (1985~1992) of the "Technical-Scientific Support Project for the Agricultural Development of Cerrado" was executed, with the objective of improving the technologies developed in the first phase. In phase II, research on rational utilization of the soil-plant-water system, defense against diseases and pests, and cultivation and crops management techniques adapted to the region were developed.

2) PROJECT OF TECHNICAL-SCIENTIFIC SUPPORT FOR SUSTAINABLE AGRICULTURAL DEVELOPMENT OF CERRADO FOCUSING ON MANAGEMENT AND CONSERVATION OF NATURAL RESOURCES

As the result of the accelerated process of Cerrado agricultural occupation, impacts on the environment started to be seen, such as the outbreak of pests and diseases; damage caused by the continuous cultivation of the same crop; climatic alterations; soil degradation and erosion; reduction of the region native fauna and flora; destruction of natural ecosystems, etc. Consequently (and also to promote the sustainable agriculture practice), evaluation of natural resources and the strengthening of research aiming at the promotion of the balance between agricultural development and environmental preservation was considered necessary.

This Project was executed between 1994 and 1999. Various researches were carried out such as research in the vegetal protection areas, soil fertilization, remote monitoring, production systems, water quality, agricultural machinery, control of diseases and pests, in addition to the development of sustainable agricultural technologies focusing on environmental conservation.

3) ENVIRONMENTAL MONITORING OF CERRADO

At the same time that research cooperation was being carried out, the awareness increased of the need for a "survey about the influences of the simultaneous process of large-scale agricultural development on the Cerrado environment." To contribute to future environmental preservation work, the "Cerrado environmental monitoring" (1992~2000) was started in the PRODECER pilot-projects areas. The monitoring was carried out in PRODECER I and II areas from 1992 to 1996, and in PRODECER III areas from 1994 (even before the project began) until 2000.

In this work, indicators such as soil erosion, water volume and quality, vegetation and insects were monitored. The accumulated data resulting from this monitoring effort and the work methodology can be utilized in future projects that aim at the implementation of a sustainable agricultural development process. Such results were recently published with the title "Environmental monitoring in the PRODECER agricultural projects", as a reference for the Cerrado agricultural development with environmental concerns. As the result of the environmental monitoring work carried out through the observation of indicators in defined locations and points, a considerable amount of basic data was collected as well as the consolidation of a monitoring methodology.

Water quality survey

Butterfly which is often appeared in the Cerrado region

(2) JOINT RESEARCH

JIRCAS (Japan International Center for Agricultural Sciences), has been carrying out joint research with Brazil. The objective is not only the research of agriculture and livestock in the Cerrado region, but also in the entire Brazilian agriculture.

This research can be classified according to period and objectives, as follows:

1) Research of upland field crops production in Brazil (1972~1996)
2) Survey and analysis of agriculture characteristics and the course of technological improvement in South/Central America. (1993~)
3) Far-reaching research (1996~2002) and Research into large areas (1997~2006)

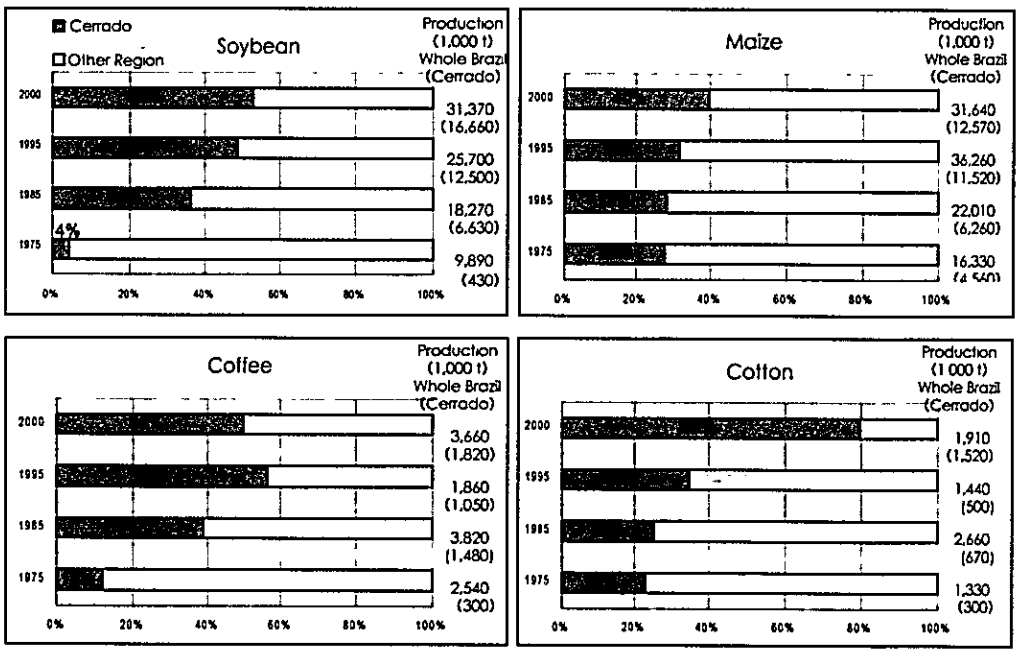
After the implementation of the projects "PADAP" and "POLOCENTRO" in 1973 and 1975 respectively, "PRODECER" started to be implemented in 1979. Mainly due to the incentives and influence of these projects, the Cerrado region added to the Brazilian productive process 10 million ha of annual crops and 2 million ha of perennial crops, in a period of a quarter of a century. The total exploited area in this region, including the pasture areas, represents more than 57 million ha, still with high possibility of expansion. PRODECER was the catalyst to the Cerrado development in the Cerrado with these projects.

1 FORMATION OF A NEW AGRICULTURAL POTENTIAL BASED ON SOYBEAN CULTIVATION

The crop that stimulated the most of the development of the Cerrado region was soybean. The production rate of soybean in the region, in relation to the total national production, jumped from 4% in 1975 to 53% in 2000. The increase of soybean production in this region propelled Brazil to the 2nd position among the soybean producing countries, with the USA in the 1st position.

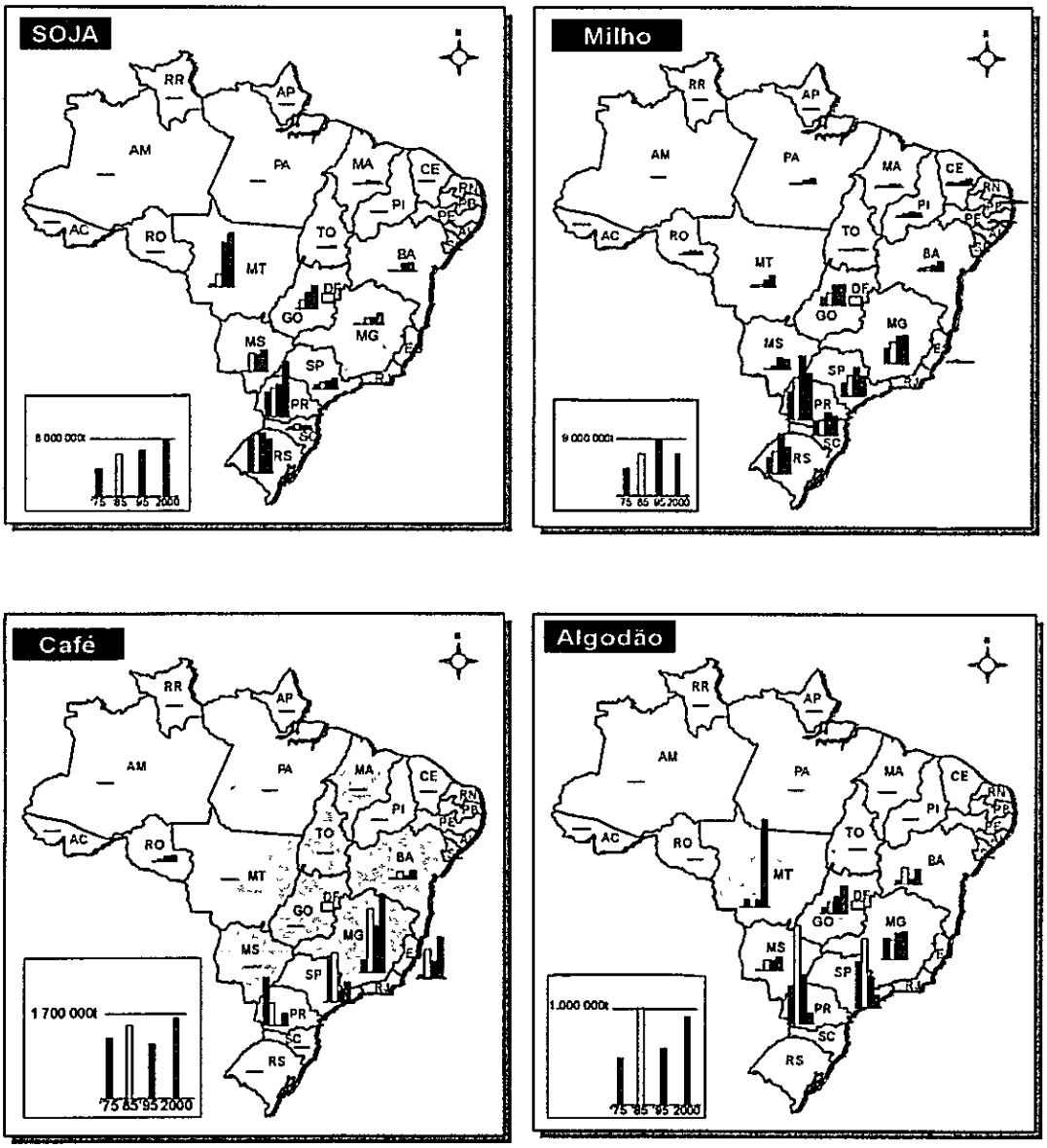
Maize production volume in Cerrado region increased from 4,560,000 tons in 1975, to 12,570,000 tons in 2000, increasing by 2.8 times and with its percent share in relation to the national production jumping from 28% to 40%. Coffee and cotton production in the Cerrado region (traditional crops in Brazil) also increased, representing 50% and 80% of the total national production, respectively.

Evolution of the Soybean, Maize, Coffee and Cotton Production in the Cerrados Region and their Participation in National Production



The evolution of the main crop productions in the Cerrado region is presented. The change of main crop production areas, is migrating from the South/Southeast Regions to the Center-West, North and Northeast Regions, following the opening of the Cerrado region. As a consequence of this expansion, the percent share of the country's South Region (a traditional soybean producer region) in relation to the national total production, dropped from 89% in 1975 to 42% in 2000. On the other hand, the soybean production in the Cerrado region increased very quickly, pulling other crop productions such as maize, feijão bean, coffee, cotton, etc., and thus redefining the map of the country's agricultural production.

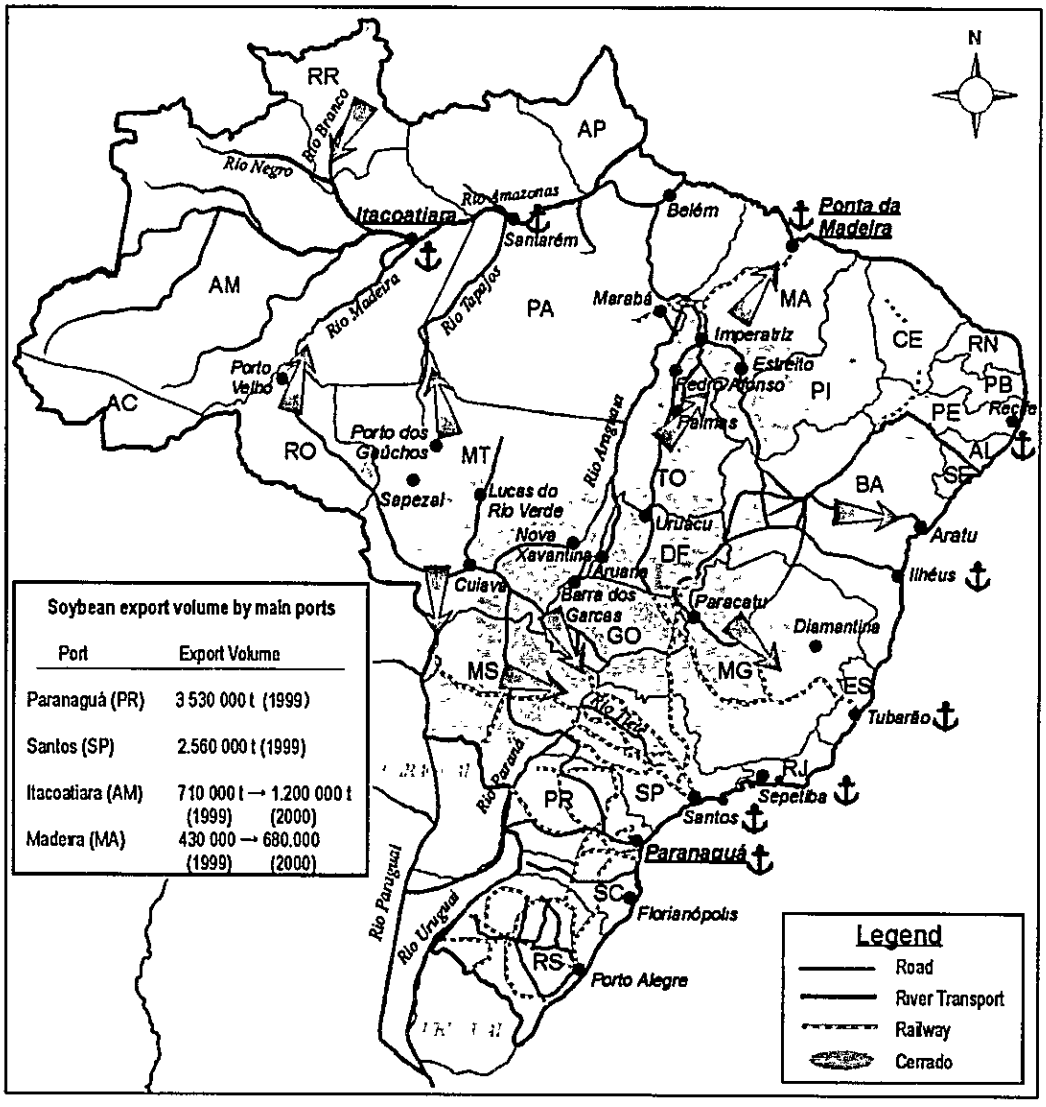
Evolution of the Production Volume of the Main Agricultural Products in the Cerrado Region, by State (soybean, maize, coffee and cotton)



2 INFLUENCE ON MARKETING AND EXPORT CORRIDORS

The expansion of the production in the Cerrado region, mainly of soybean, has caused modifications in the marketing and export corridors of this commodity and its by-products. Until the 80's, when the Southern Region was the country's main producer, the main port for soybean export was the Port of Paranaguá, in Paraná State. However, the main routes, since the 90's, are Itacoatiara port, in the Amazon River, and Ponta da Madeira port (this one utilizing the Carajás railway) for the commercial transport of the Cerrado region's products. These, together with Paranaguá port and the Rio Grande port in the South Region, and the port of Santos, in the Southeast Region, are the main alternatives for export.

Expansion of the Soybean Producer Region and Diversification of the Marketing and Export Routes



3 IMPACT ON REGIONAL AGRICULTURE AND SOCIETY

(1) AGRICULTURE PRODUCTION INCREASE IN PRODECER SURROUNDING REGION

Local producers as well as farmers coming from other regions, have acquired new areas in the surrounded region of PRODECER implementation sites, increasing the cultivated area of the municipalities that hosted PRODECER.

Soybean production area has expanded in Cerrado including PRODECER. Accordingly grain dealer (Major) and agricultural company which sells fertilizers, agricultural chemicals, agricultural machines and so on, have been promoted the advance. And industries associated with agricultural production of oil crop and feeds have developed.

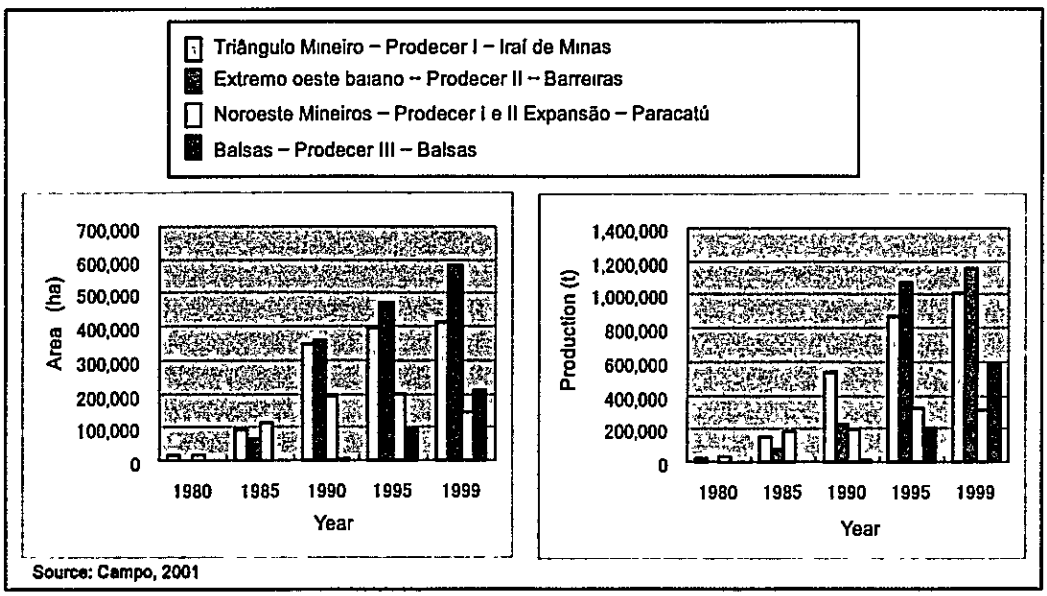
The expansion of the agricultural activity stimulated by PRODECER made possible the diversification of crops such as rice, maize, feijão bean, cotton, coffee, fruits and soybean, of course. At the same time it has motivated the expansion of complementary commercial sectors.

Number of Participant Producers of PRODECER and Number of Producers Settled on their Own

Project	Municipality	Farmers settled through the project	Farmers settled on their own	Accumulated Total 1985、1989	Accumulated Total 1996
PRODECER I					
Irai de Minas	Irai de Minas	26	39	65 (1985)	347
Mundo Novo	Paracatu	48	15	63 (")	1.491
Coromandel	Coromandel	18	70	88 (")	1.687
PRODECER II					
Alvorada	Água Clara	56	49	105 (1989)	—
Paineira	Campo Alegre	29	250	279 (")	—
Entre Ribeiros, I, II, III	Paracatu	89	161	250 (")	1.491

(Remark: Paracatu Municipality includes the Entre Ribeiro area)
Source : 1) PRODECER, JADECO – 1986,
2) PRODECER II Expansion Project – Evaluation Report JADECO, 1989

Evolution of the Production Volume and Soybean Planting Area in the Surrounding Area to PRODECER projects



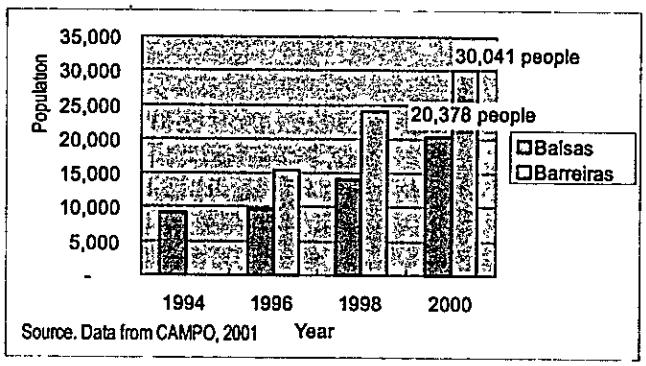
Source: Campo, 2001

(2) INFLUENCE OF REGIONAL SOCIETY

The development of the Cerrado' agricultural frontier has demanded the implementation of some basic infrastructure facilities in order to assist producer settlements in the area. According to the P/A (Project Agreement), the construction of access roads and the supply of electricity in the projects are the responsibility of the Brazilian side.

The provision of infrastructure by the Federal, State and even Municipality governments, right after PRODECER project implementations, decisively contributed to the expansion and the upgrade of Municipality infrastructure that hosted the program, also contributed to the population growth and the increase in the number of school children. In Barreiras Municipalities, Bahia State in the project PRODECER III, the number of school children is increasing according to the population growth since 1995 when PRODECER III was started. Especially in the last five years, the number of students is increasing remarkably because of the increase of Cerrado producer's children who are reaching school age.

Evolution on the Number of Students in Barreiras and Balsas Municipalities



Source. Data from CAMPO, 2001

The classroom in Gerais de Balsas' school in PRODECER III

* There is not any school within a radius for 20 kilometers of the project of PRODECER. Only this established school in PRODECER project is in this area.

* Only 9 students of 211s' are children of PRODECER producers. Students around the project area have benefits by school establishment of the PRODECER project.

THE BIRTH OF A NEW TOWN – Sapezal Municipality, in Mato Grosso State

Piúva and Ana Terra projects of PRODECER II were implemented in Mato Grosso State, starting a process that would lead the State to become the biggest soybean producer in the country. The Sapezal region, located close to the two projects, became, from the last part of 1970, an important agriculture frontier due to Maggi Group investments (a trading company with national capital specialized in grains). The Group turned the Sapezal region, which did not even appear in maps at that time, into a prosperous soybean producing region, leading to the process of Sapezal Municipality establishment which occurred in 1997.

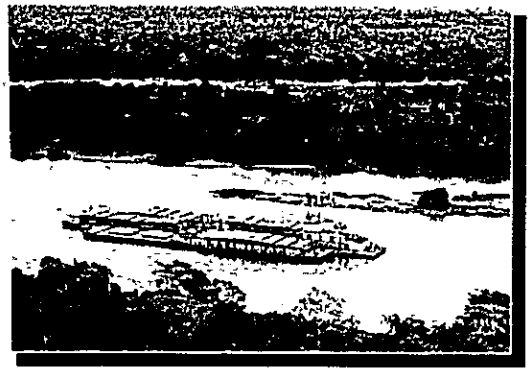
Following the Maggi Group installation in the region with farms being administrated directly and with a soybean storage system, other companies such as cotton and rice processing companies, machinery and agriculture implements retailers, fertilizers and pesticides retailers, etc. began successively to establish their businesses in the region. In 1987, Sapezal had 1,900 inhabitants and this number increased to 10,000 in 2000, which represents a growth rate of 24% per year, in the last 5 years (1996 – 2000). The Maggi Group has been in business for almost 30 years, building the production basis of Sapezal and leading the process for city establishment.

The increase in soybean production in the Sapezal Municipality caused the increase of the number of people working in complementary areas and the rise of municipality revenue. Nowadays, 25% of the municipality revenue comes from the Maggi Group. The Maggi Group, a national company, has constructed commercial and export route by themselves, has been exporting soybean to Europe and even to Japan. Some Japanese Trading Companies have also bought soybeans directly from the Maggi Group and they have a positive evaluation about the export route through the North Region of the country developed by this Group.

The birth of this Municipality, the strength of this private Group and the consolidation of the Mato Grosso State as an agricultural State are good examples of how PRODECER implementation stimulated the dynamism of the private sector, thus contributing to regional development and local progress.

A view of Sapezal City in Mato Grosso State

Newly Developed Soybean Export for Northern Route



Ship waiting for the loading of soybean

4 IMPACTS OF PRODECER ON INTERNATIONAL MARKETS - FOCUSING ON INCREASES IN SOYBEAN PRODUCTION IN BRAZIL –

(1) CONTRIBUTION TO INCREASE OF THE WORLD SOYBEAN PRODUCTION

The Brazilian soybean production is now the second largest in the world after the U.S. which produces almost 80 million tons. Soybean production in the U.S. was quite unstable and stagnant in the 1980's and also during the first half of the 1990's. It even decreased considerably during that period. On the other hand in Brazil, soybean production grew greatly from 15 million tons to 40 million tons during the last 15 years. Accordingly, the Brazilian shares of soybean production in the world increased from 15% in the early 1980's to over 20% in recent years, growing at a faster speed than in the rest of the world.

This progress was greatly supported by the improvement of varieties which are applicable in the areas around the equator. Those varieties were developed by the joint research of Japanese-Brazilian governments under the overall PRODECER programs.

(2) CONTRIBUTION TO THE WORLD MARKET BY INCREASE OF SOYBEAN EXPORT

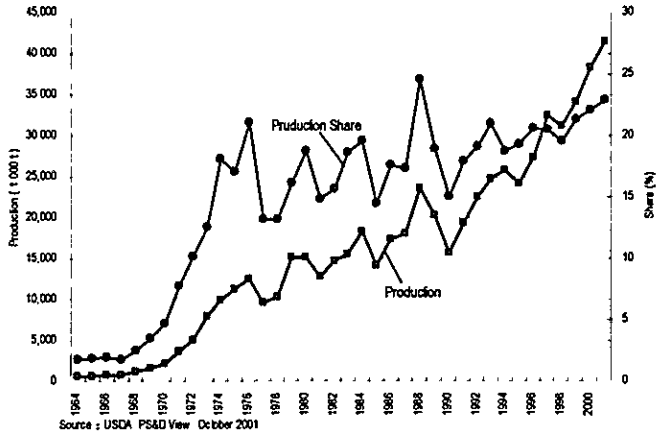
Based on the increases in domestic soybean production particularly in the Cerrado areas, Brazilian soybean exports increased dramatically reaching 17 million tons in 2001 and accounting for a quarter of the world total 56 million tons of soybean exports. The increases in Brazilian soybean exports were particularly remarkable during the last 5 years.

In the past, soybean exports from Brazil increased in the 1970's when the food supply shortages were experienced throughout the globe. The market prices rose greatly during those days. Brazil reacted very flexibly to the market prices back then, and its exports increased from 0.5 million tons in the early 1970's to 3.5 million tons in 1974. Brazilian Soybean exports then returned back to a 0.6 million ton level in 1977 and 1978. It was around 1980 when Brazilian soybean exports again began to increase. The exports fluctuated for the first 15 years after 1980, but during the last 6 years, soybean exports from Brazil increased by 4 times reaching 17 million tons and earned for Brazil the status as a stable and reliable supplier in the world soybean markets.

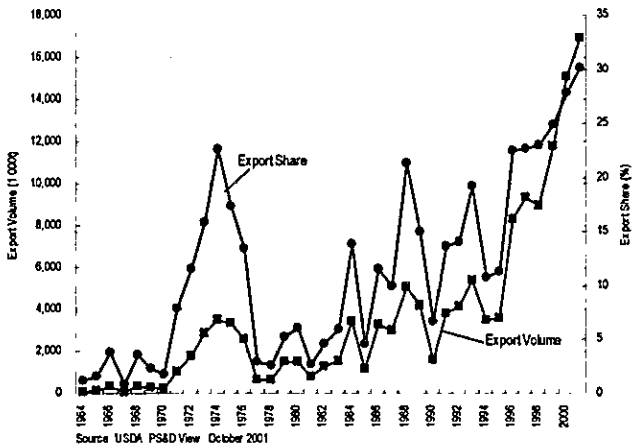
(3) BRAZIL: RELIABLE SOYBEAN SUPPLIER IN THE WORLD

Brazil has maintained the second position in the world soybean export market accounting for a quarter while the U.S. share has decreased to a half. These dramatic increases in soybean exports in Brazil were also supported by the improvements of infrastructure of the whole transport system (at the harbors and roads) as well as increases in soybean production.

Production of Brazil and Production share in the World Production of Soybean



Export volume of Brazil and Export share in the world of soybean



Volumes and Shares of the Top Four Countries in Soybean Exports from 1962 through 1996 (5 year average)

(unit: 1,000ton)

	1962-66		1972-76		1982-86		1992-96	
1st	US	6,571	US	13,926	US	20,377	US	21,462
2nd	China	564	Brazil	2,815	Argentina	2,256	Brazil	4,354
3rd	Brazil	167	China	255	Brazil	2,167	Argentina	2,323
4th	Canada	81	Argentina	147	China	1,042	Paraguay	1,450
	Others	39	Others	352	Others	1,048	Others	1,708
	World Tatal	7,422	World Tatal	17,495	World Tatal	26,891	World Tatal	31,297
	CR4	99.5%	CR4	98.0%	CR4	96.1%	CR4	94.5%
	CR1	88.5%	CR1	79.6%	CR1	75.8%	CR1	68.6%

Note 1: A five year average during the period.
Note 2: CR1 and CR4 indicate the concentration ratio(es) of the top 1 and top 4 countries, respectively.
Source: USDA/ERS: PS&D View, June 12,1997

5 CONTRIBUTION TO WORLD MARKET PRICES

In around 1980, soybean producing areas in Brazil were about a third of those of the U.S. Since then, soybean production in Brazil increased steadily while U.S. production was stagnant. Soybean areas in Brazil have reached a level of about half of the U.S. soybean areas. Whereas yields of soybeans in Brazil were smaller than those in the U.S. in the 1980's and 1990's, during recent years, Brazilian soybean yields have been slightly greater than U.S. yields. Substantial increases in soybean production as well as soybean/livestock products in Brazil have greatly impacted world soybean market prices, making them cheaper and more stable for the world than ever before.

In the fall of 2000, BSE (mad-cow-disease) problems were causing chaos in Europe. Feedstuff made from bones and meat were prohibited by more countries and livestock producers shifted to soybean and soybean meal for feed. In the past in this type of situation, market prices would have surged. Now, however, without the U.S. having a monopolistic lion's share, major supplying countries such as Brazil and other exporters have contributed to stable market prices. Accordingly, responses of the market were calm and significant rise in prices occurred only for a short period. Farm prices of soybeans in the U.S. rose from US$4.50 per bushel in November 2000 to US$4.80 next month, only a 10% increase. Prices moved downwards after that.

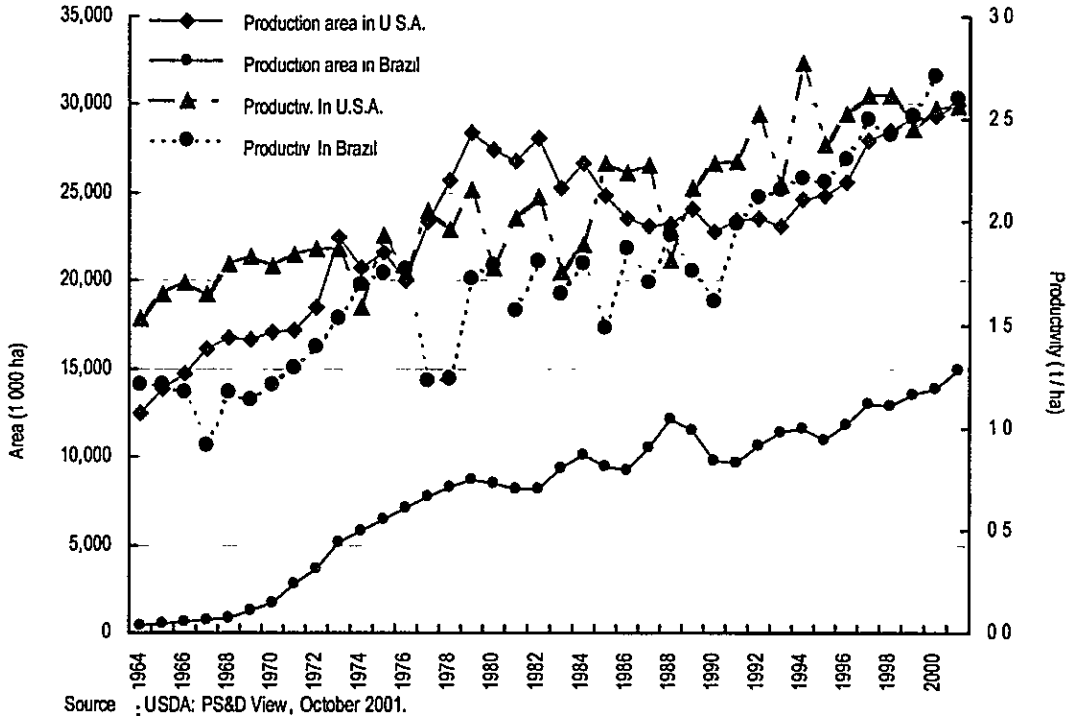
Market prices at the Chicago Board of Trade are now very responsive to the situation in Brazil. Chicago prices each day reflect the supply/demand conditions in Brazil. Brazilian soybeans have established their status that high now. This situation of stable and increasing supply with downward prices for soybean as well as livestock products is welcomed by the international community. The benefits from this may be much larger than what one can imagine. The contribution of PRODECER, which initiated the major increases in soybean production in the Cerrado areas, may eventually be recognized as an invaluable program by international society as well as by the Brazilian people.

6 CONTRIBUTION TO JAPAN

Japan imports from Brazil just over 0.5 million tons of soybean. Japan imported about almost 5 million tons each year from all over the world (mainly from the largest exporter, the U.S.) during the last decade. Brazilian soybeans account for only slightly more than 10% of total Japanese soybean imports. Accordingly, contributions of PRODECER appear to be quite small. However, dramatic increases in soybean production in Brazil originating from the PRODECER projects have contributed to stable and lower world market prices for soybeans. This is a great benefit for soybean importing countries such as Japan.

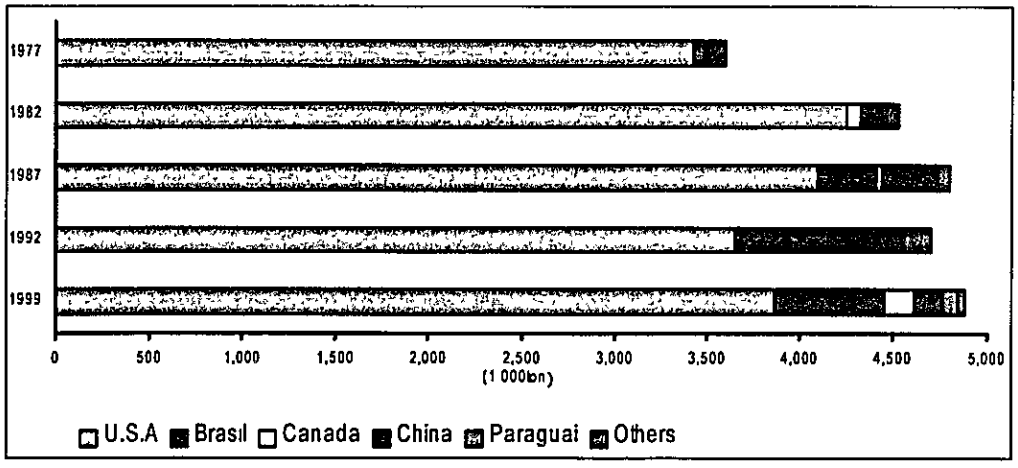
Imagine how much more an importing country would have to pay in case Brazilian soybean production were only half of their actual production level. It is expected that soybean production in the Cerrado areas will continue to increase in the future. Therefore, the current downward movement of market prices will also continue, and importing countries like Japan will continue to receive increasing benefits.

Production area and Productivity of soybean in U.S.A. and Brazil



Source : USDA: PS&D View, October 2001.

Main origin of soybean imports in Japan

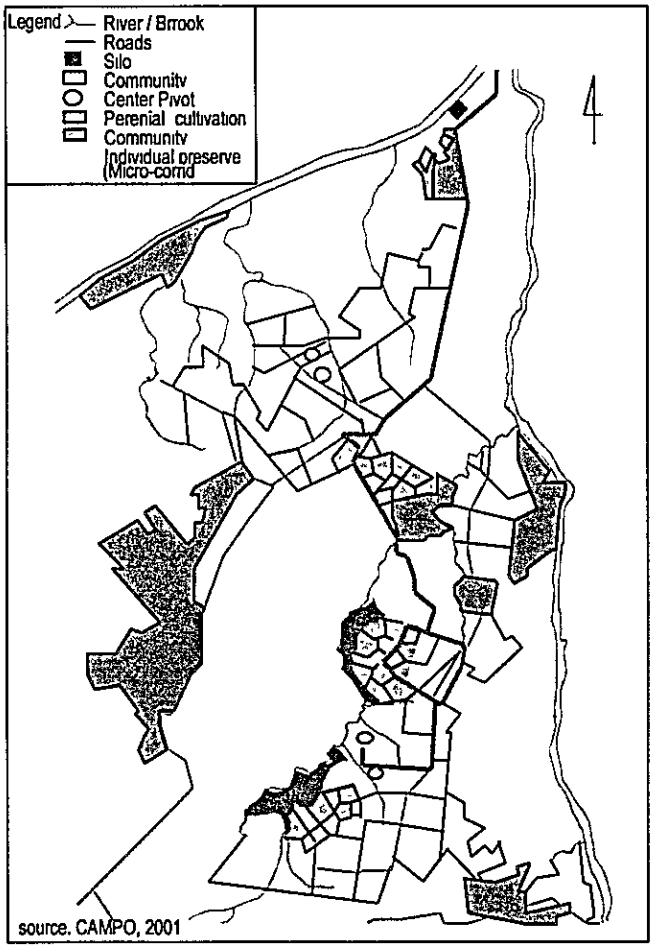


Source: "monthly data of Japanese trade"

7 IMPACT ON THE ENVIRONMENT - PRODECER COMMITMENT TO ENVIRONMENT CONSERVATION -

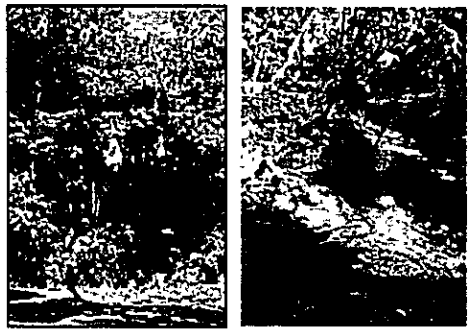
Among the PRODECER principles, the concept that there is no sustainable agriculture development without harmony with the environment is implicit. So, in PRODECER II, forest reserves were preserved as a joint preserves, a collective form of preservation area. Apart from this, in PRODECER III, besides conservation of preserves in a collective manner, as a joint preserves, which represents a minimum of 50% of the total area, measures that contribute to the environment conservation such as construction of contour lines, introduction of crops rotation of crops, seeding cultivation, etc., are actively and continuously adopted.

The survey of land use carried out in the environment monitoring showed the conditions of land use in PRODECER I and PRODECER II, after 7 or 13 years of project implementation, and compared this with the initial plan. The result revealed a 34% reduction of the individual preserves, while the community preserves decreased only by 2%. Based on this result, CAMPO adopted the model of a joint preserves in PRODECER III projects.



Community preserves and Individuals' (Micro-corridor) in the Pedro Afonso area of PRODECER III

A preserve for environmental conservation



A natural forest and a spring water preserve

PRODECER played an important role among the bilateral agricultural development programs in the Cerrado region, and even outside this region. It can be said that PRODECER was the catalyst to the Cerrado development process, with 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).

The evaluation results of PRODECER, influenced multiple and various aspects, are presented as follows:

(1) EFFICIENCY

1) The development of the project areas and the guidance to PRODECER producers can be positively evaluated considering their contribution to the development of the Cerrado region, which was considered until that moment very difficult. These were carried out with agricultural techniques, financial resources and investment lines available at the time. The supervision of financing resources to producers and cooperatives by CAMPO assured the transparency of their application. This fact can be positively evaluated as a factor that increased the efficiency of the project execution effect.

2) Three years were spent in discussion of the program execution scheme and structure. Themes such as the governmental support manner, technological development and rural extension method, protection of the Japanese resources against the currency exchange losses, etc., were to be solved before the signature of the R/D. During the discussions, the PRODECER financing system was designed and the L/A (Loan Agreement) and P/A (Project Agreement) were signed. The P/A highly contributed to efficient program execution since it clearly defined the responsibilities of both the Brazilian and the Japanese governments, at various levels.

3) On the other hand, in PRODECER II and III, the initial plan execution was delayed in terms of the construction of collective canals and introduction of irrigation equipment in the projects, lack of maintenance of access roads, etc., due to the scarce budgetary resources of the State governments caused by the economic difficulties faced by the country or by the State itself. These facts can be pointed out as restraining factors to better efficiency in program execution.

(2) OBJECTIVE ACCOMPLISHMENT DEGREE

1) The main objectives of PRODECER were: the opening of agricultural areas, efficient agricultural production, stable administration of property, development/diffusion of agricultural technology, and consolidation of agriculture with emphasis on the environmental protection. Except for the stable administration of the property, the other objectives were practically all accomplished. The technical assistance rendered by CAMPO and by the participant cooperatives and the service of production equipment supply to producers contributed to stable agricultural production. On the other hand, the introduction of good crop varieties and the support activities to producers such as the demonstrative experiments carried out by EMBRAPA-Cerrado consolidated the appropriate agricultural technology for the region, significantly contributing to the increase of productivity in the Cerrado region.

2) However, for the property administration, several producers of PRODECER II and III became indebted, owing high sums. The cause of this problem is not a fault in program execution, but the high interest rate policy introduced by the Brazilian government macro-economic policy. However, since PRODECER II, the necessity of production diversification is being pointed out, and the situation now is still not uniform and far from ideal, but with small exception, mainly due to the lack of irrigation equipment.

(3) IMPACT

1) PRODECER brought multiple and serial effects by inducing new farmers to establish in the surroundings of the project with their own resources, also in demonstrating on site the regional productive capacity, stimulating these farmers through their own success. Consequently, there was a sudden increase of grain production, mainly soybean. In any sector of the economy, the development of a new product pushes the development of similar products, strengthening the economy. PRODECER can be compared to a new product in the region, and it is positively appraised as a pioneer project.
2) The main superior goal of PRODECER was the increase of the world food supply, also contributing to the national economy and to the promotion of agro-industry. Soybean, the main PRODECER product, was shown to have a great economic effect through its connection with the soybean processing sector, livestock husbandry sector and other related sectors.

(4) ADEQUACY TO THE INITIAL PLANNING

1) The inductive effect of soybean on other related sectors already surpassed the limits of the agro-industry, and became the driving force in the creation of agribusiness that encompasses transport, processing, commerce and export. Furthermore, it is noteworthy that the pioneer cultivation of soybean in the Cerrado region became the basis for the implementation of a more diversified agriculture, and one of the most technological agriculture areas in the country. The creation of these new connections strengthened even more the value and adequacy of the initial planning of the PRODECER superior goal.
2) Production expansion of coffee and cotton cultivation, and of beef cattle grazing by pasture improve, contributed to promote agribusiness.

(5) SUSTAINTABILITY

The multiple effects of the PRODECER direct impact on the local communities as well as the indirect impact on the regional and national agriculture and economy, besides the world food supply, were evaluated as positive.

For the future, in order to maintain these multiple effects, the sustainable utilization of incorporated arable areas and the maintenance of their diffusing effects are necessary.

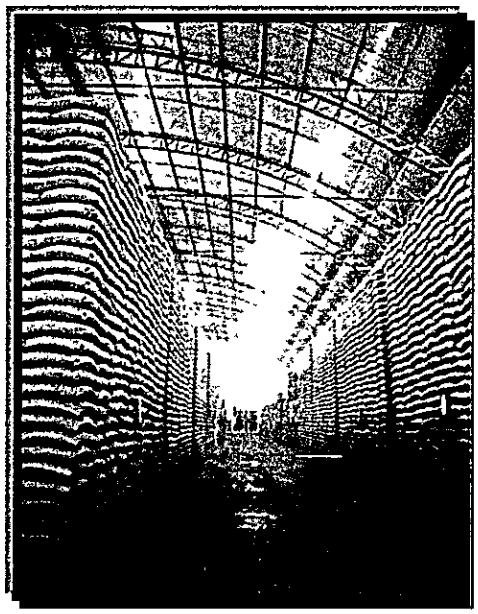
F FUTURE PERSPECTIVES OF THE AGRICULTURAL DEVELOPMENT IN THE CERRADO REGION

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 Cerrado 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.

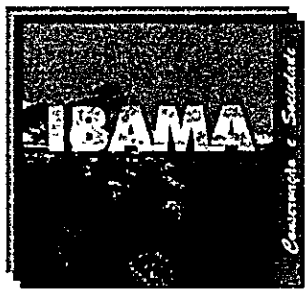
In conclusion, over the last decades, Brazil and Japan have strengthened their economic relationship, which also included private capital investments, through PRODECER and other Cooperation Programs for the Agricultural Development of Cerrado. For the future, closer bilateral economic exchange is expected through agribusiness opportunities created in the Cerrado region.

Participation of producers in the extension activities for Cerrado agricultural development



Piles of stock of cereals

Preservation activities in native Indian area



Promotion of enveiromental campaign