Chapter 3

CONTENTS AND ACHIEVEMENTS OF PRODECER

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Among the Japanese-Brazilian bilateral economic cooperation projects, Prodecer is considered a long-term large-scale one with worldwide impact. First of all because its objective is the development of the agricultural frontier in the Cerrados region, covering large areas, in particular at the country's central region. Secondly, because in its search to increase the world food supply exporting agricultural products such as soybean to Japan, this program has global repercussions. Thirdly, because it lasted a long time and during all this period there was an organic and effective interaction with the Japanese technical cooperation. It can be said that Prodecer is a program based not only on the "COMPLEMENTARY", considered as the basic characteristic of both country's economic relationship, but also and mainly on the "reciprocity" of mutual interests between Brazil and Japan.

Prodecer was carried out as a joint program of both governments, lasting more than 22 years, divided into 3 phases, transforming approximately 345,000 ha of rough land into productive land. Its basic conception was to promote the development of pilot settlements with medium-scale farmers, organized in cooperatives, and utilizing modern agricultural technologies. In order to open the frontier using this method, high initial investment was necessary, mostly used as resources for loan. The Prodecer total cost is estimated as US$562.9 million . The financing system which allowed its realization reflects the characteristics of this program, and in a certain way explains, mainly considering the subsequent macro-economic conditioning factors, producer indebtedness problems.

The objective of this Chapter is to present the development and execution of Prodecer, according to the conception formulated by both countries, and its main results and achievements.

3.1 GENERAL ASPECTS OF PRODECER

3.1.1 History of the Prodecer execution

The conception and planning of Prodecer effectively started after the release of the joint communication from 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” about the Japanese-Brazilian cooperation for the agricultural development was signed by Brazilian President Mr. Geisel and Japanese Prime Minister Mr. Tanaka. This communication showed the intention of both countries for deepening the cooperation for agricultural development in the Cerrados region, aiming at promoting on entrepreneurial scale the agricultural production and its processing. Based 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 Cerrados agricultural development was carried out. In 1975, a "MISSION OF PRELIMINARY STUDIES FOR THE PROGRAM OF AGRICULTURAL DEVELOPMENT COOPERATION OF BRAZIL” was dispatched and carried out joint survey together with Brazilian counterparts. Concomitantly, a mixed mission – government / private sector – for discussions, and another mission for the cooperation in agricultural research were dispatched. The studies, surveys and discussions for the planning of the program were carried out until August of the following year.

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.

From the joint communication until the realization of the agreements, a long time elapsed – 5 years - with analyses by both governments and private sector members. This delay was due to the existence of several challenges to be overcome for the planning of a cooperation method that was efficient and appropriate for the development of agricultural frontiers in the Cerrados region. Among these, the main challenges were: governmental support; development and diffusion of agricultural technology; acquisition of land; constitution of a coordinator and executor organization for the project; protection mechanism against currency exchange losses; selection of participants, etc.

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. The Japanese side created, in March 1978, 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. Then following in November of the same year, the CPA – 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

Following the signing of the R/D, 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.

3.1.2 General aspects of Prodecer execution

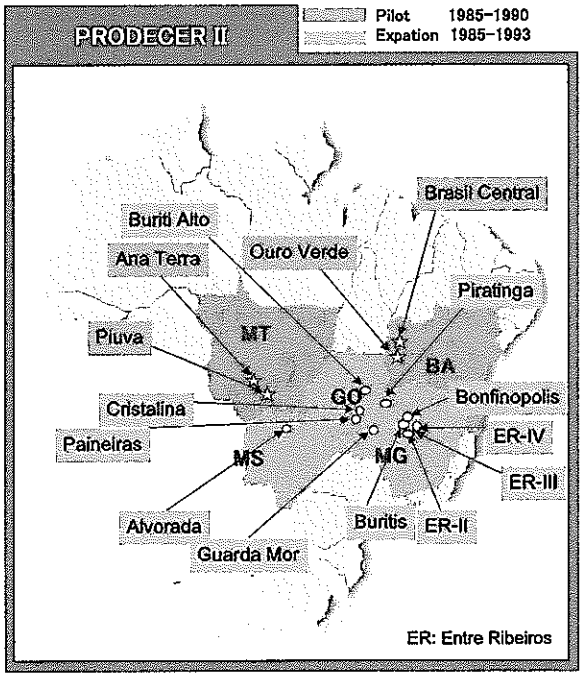
With the establishment of an execution structure for Prodecer, the following projects were implemented: Prodecer I PILOT, from 1979 to 1982, Prodecer II PILOT and Prodecer EXPANSION, from 1985 to 1993, and Prodecer III PILOT which started implementation in 1995 and finished in March 2001 [1)].

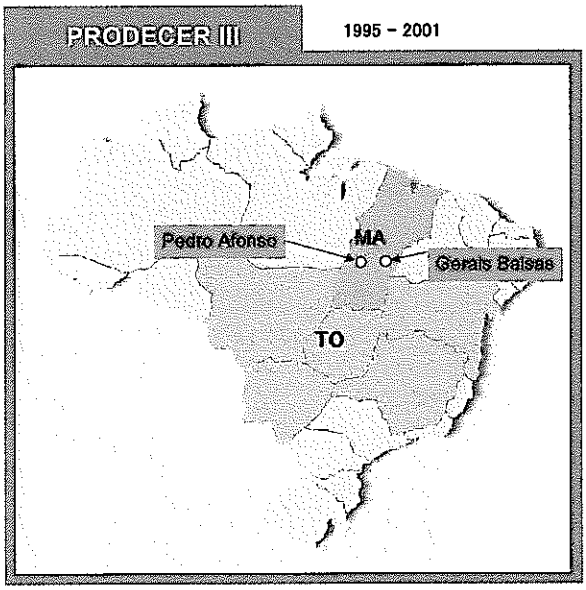
The general aspects of the 3 phases' execution are presented below:

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. As part of the plan, a farm directly administered by CAMPO and with 5,000 ha aiming at producing good quality seeds and two other agricultural companies (plantations) were implemented. The total cost of this project implementation was US$50 million, with 92 settled families. After the conclusion of this phase, starting in 1983, in the Santa Rosa region, Municipality of Paracatu – MG, a colonization project was executed (Entre Ribeiros I Project), with the same concept, 10,000 ha, using only Brazilian resources and land belonging to CAMPO. This project has benefited more than 41 families and approximately US$17 million were spent. In this pilot project, which was implemented in a traditional Cerrados area, two methods for opening the agricultural frontier were tried: a) colonization type, and b) agricultural company type (plantation). When the "JAPANESE-BRAZILIAN JOINT EVALUATION" was carried out, in 1982, the colonization type was judged more appropriate.

[1)] In the pilot projects, resources for investment financing from JICA were utilized, while for the expansion projects, resources for general projects financing from JBIC (former OECF) were utilized.

Prodecer II PILOT PROJECT II (1985~1990) EXPANSION 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 Cerrados 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 EXPANSION was executed with resources for General Projects financing from 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.
Prodecer III PILOT (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.





Execution of PRODECER Ⅰ、Ⅱ、Ⅲ

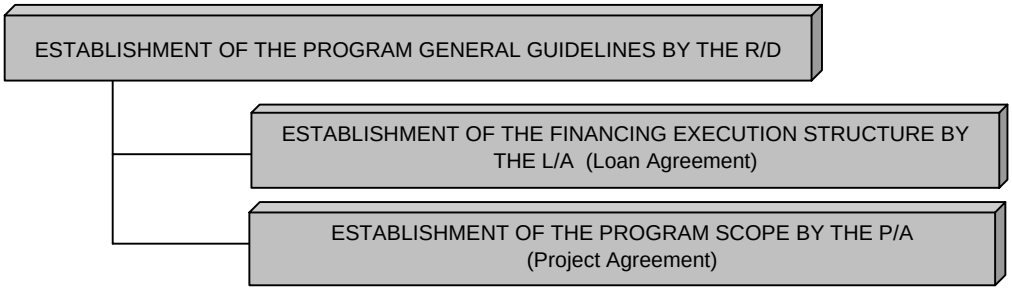
	Area(ha)	Producer	Investment: US$ million (100million yen)		
			Brazil	Japan	Total
PRODECER I	60,000	92	25 (51)	25 (51)	50 (102)
MG Irai de Minas	9,000	26			
Mundo Novo	23,000	48			
Coromandel	6,000	18			
Entre Ribeiros I	10,315	41			
PRODECER II	65,000	165	50 (64)	50 (64)	100 (128)
BA Ouro Verde	16,404	48			
Brasil Central	15,028	38			
MT Ana Terra	18,600	40			
Piuva	16,717	39			
PRODECER II (Expantion	140,000	380	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	11,916	37			
Bonfinopolis	16,588	49			
Piratinga	20,643	53			
Buritis	17,004	42			
GO Paineiras	8,274	29			
Cristalina	6,115	16			
Buriti Alto	15,615	40			
MS Alvorada	22,001	56			
PRODECER III	80,000	80	55.2 (61)	82.7 (79)	137.9 (140)
MA Balsas	40,000	40			
TO Pedro Afonso	40,000	40			
TOTAL	345,000	717	267.7 (333)	295.2 (351)	562.9 (684)

Fig. 3.1.1 General Aspects of Prodecer

3.1.3 Characteristics of Prodecer

(1) Program based on the signature of agreements

Before the start of each phase of Prodecer, three agreements were signed between both countries with guidelines to 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 R/D is the Record of Discussions that decided the basic guidelines of both countries in regard to Prodecer. The L/A (Loan Agreement) defines rules about the financing by the Japanese side, and the allocation of resources by the Brazilian side, financing system to the producers, etc. The P/A (Project Agreement) establishes the scope of Prodecer execution based on the study carried out for each Phase - I, II and III - of the program. The P/A is the axis of the development conception of each Prodecer phase and clearly establishes the responsibilities of the federal government, State governments, financing agents, CAMPO, cooperatives, etc., aiming at the efficient execution of the program.

(2) Method of pilot development through colonization by medium-scale farmers

Prodecer goal was the creation of agricultural development pilot projects in the new agricultural frontiers of the Cerrados 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:

- The producers acquired everything: land, agricultural machinery, residence, production facilities, besides resources for covering production costs, etc.
- A high initial investment was necessary.
- Most of resources came from financing.
- There was an increasing amount of attention paid to the environment during the occupation process.
- Establishment of social economic infrastructure by State government and the municipality was necessary.

(3) Creation of CAMPO as the coordinator of program execution

CPA – 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 concerned organizations of both countries and in 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 Cerrados region with its high acidity 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.

The general aspects of the system and the financing conditions, as well as the role and function of CAMPO and of the cooperatives; the main data concerning to the financing, areas, investment sums, production and yield, of the implemented colonization projects, are summarized below. The technical cooperation program as well as the other Japanese-Brazilian financial cooperation programs are presented in Chapter 4.

3.2 STRUCTURE OF PRODECER FINANCING

3.2.1 Financing scheme

Figure 3.2.1 shows the elements of the financing scheme.

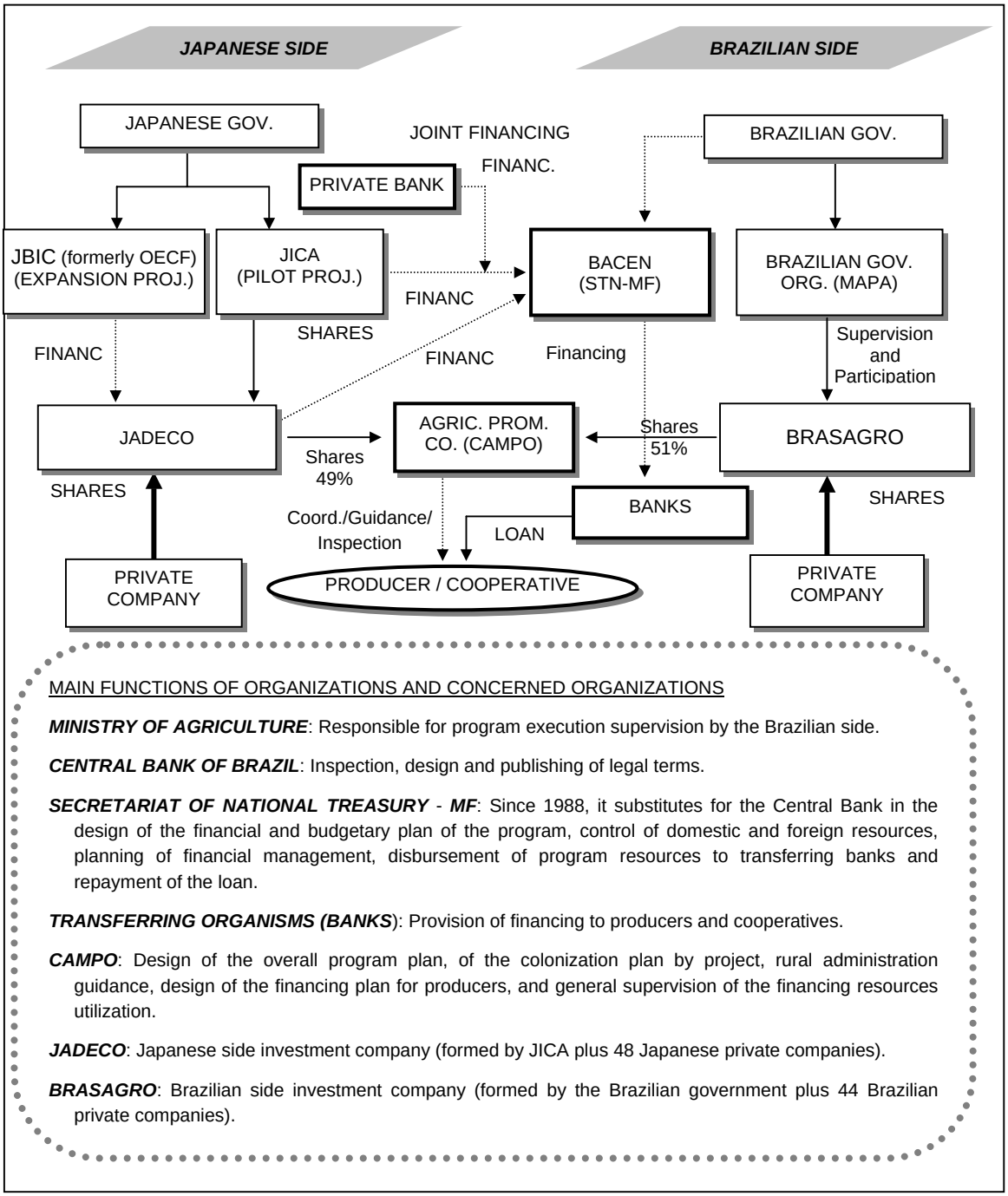


Fig. 3.2.1 Financing scheme of Prodecer and the Functions of Concerned Organizations

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.

3.2.2 Steps for the financing provision

The steps for provision of financing and its main points are as follows:

FINANCING RESOURCES

1) The necessary resources for the producers came from both countries. The participation of each country corresponded to 50%, in both PHASE I and II. In PHASE III, the Japanese side contributed 60% and the Brazilian side, 40%.
2) In the case of the Pilot Projects, 80% of the Japanese side resources came from the "Fund of Investment and Financing" of JICA, and the rest from private banks. In the Expansion Project, resources from the JBIC (former OECF) "Fund for Projects in General" were used.
3) The Brazilian side resources came from the Federal government, resources transferring organizations (banks) and beneficiaries (producers, cooperatives, agricultural companies).

SELECTION OF PRODUCERS

1) The producers were pre-selected by CAMPO and by the COOPERATIVES based on the previously established criteria.
2) The banks carried out their own analysis of the applicants.
3) Approximately 80% of the producers were pre-selected by the cooperatives, under the supervision of CAMPO.
4) The others were selected by CAMPO among farmers and agrarian science technicians already established in the region at the project implementation time.
5) The main criteria for the selection of producers were as follows:
   - Not owning property - land.
   - Brazilian nationality.
   - Experience with agricultural activity.
   - Enthusiasm and disposition to participate in the program.
   - Disposition to reside on the property or in the nearby municipality, and availability of necessary own resources.

FINANCING FLOW

1) The loan organizations received loans through a transferring bank.
2) CAMPO periodically consolidated the requirements of financing resources to the Program loan organizations, and then sent the request to the Ministry of Agriculture which, after analysis, formalized the request to BACEN/STN.
3) Each transferring bank, in turn, requested the necessary resources to BACEN/STN to meet the demands of loan organizations.
4) With the official request coming from the Ministry of Agriculture, BACEN/STN requested the release of resources from JICA, JADECO and from the group of Japanese banks.
5) The Brazilian side complemented the necessary resources with its own budget, meeting transferring bank demands, which in turn financed the producers and respective cooperatives.

TRANSFERRING BANKS

PHASE I : BDMG (Bank of Development of Minas Gerais)
PHASE II: BDMG, Bank of Brazil, BNCC (National Bank of Cooperative Credit), BEMAT (Bank of the Mato Grosso State) and DESENBANCO (Bank of Development of Bahia State).
PHASE III: BNB (Bank of Northeast) and Bank of Brazil.

3.2.3 Financing conditions to the producers

Prodecer financing conditions to the producers went through several changes over time, according to the circumstances at that moment, especially after Prodecer II. This can be seen in Table 3.2.1

Table 3.2.1 Financing conditions for producers, by phase, during the implementation

Prodecer I

Credit	Financing Term (years)	Grace Period (years)	Period	Interest Rate (annual)	Limit of Financing
Land	20	06	1979/1982	10%	100%
Investment	12	06	1979/1982	10%	80 - 100%
Production Cost	03	01	1979/1982	10%	100%

Prodecer II (Pilot and Expansion)

Credit	Financing Term (years)	Grace Period (years)	Period	Interest Rate (annual)	Limit of Financing
Investment	15	06	Jan 85/May 86 May 86/Jun 87 Jul 87/Dec 88 Jan 89/Jul 89 Jul 89/Dec 90 Jan 91/Mar 93	ORTN + 3% 10% OTN + 9% IPC + 12% BTN + 9% TR + 12.5%	From 80 to 100%
Production Cost	03	01	Jan 85/May 86 May 86/Jun 87 Jul 87/Jun 89 Jul-89/Dec-89 Jan-90/Jun-90 Jul-90/Feb/91 Feb-91/Jul-91 Jul-91/Aug-92	ORTN + 3% 3. 6 and 8% OTN + 3. 6 and 8% IPC + 12% BTNF + 12% BTN + 9% TRD + up to 9% TRD + 12.5%	From 80 to 100%

Prodecer III

Credit	Financing Term (years)	Grace Period (years)	Period	Interest Rate (annual)	Limit of Financing
Investment	15	06	Jan 95/Jun 99	TJLP + 6%	From 90 to 100%
	20	06	Jun 1999	TJLP + 6%	From 90 to 100%
	20	06	Mar 2001	10.75%	From 90 to 100%
Production Cost	15	06	1995/1996	TJLP + 6%	100%
	01	--	1996/1997	12 %	100%
	01	--	1997/1998	9.5%	100%
	01	--	Since 1999	8.75%	100%

Notes:

1) The stated financing and grace periods are the maximum admitted periods, although they are determined according to the repayment capacity when the projects are designed. In most of the cases, the maximum period was adopted.

2) The stated interest rates are related to the project implementation period, and thus included in the financing contracts. Even after the end of the implementation, there were alterations in the conditions as a result of the debts renegotiations, due to the difficulties faced by the producers (e.g.: Securitization, PESA, etc.).

3) The limits of financing varied according to the investment type (fixed, semi-fixed, agrarian, etc.).

4) The first year of production cost was considered as investment financing.

"The terms and conditions of any loan or credit granted to any project participant under the terms of the Special Program, in cases in which the comparable loans or credits can be obtained through other existing agricultural credit programs in the Federative Republic of Brazil, cannot be more expensive to the project participant than the terms and conditions more favorable and applicable to the comparable loans and credits available to other borrowers in the Federative Republic of Brazil, particularly those located in the Region of Cerrados".

Considering that this is a special program, some characteristics of Prodecer financing differ from other agricultural financing lines in the country: e.g.,

- The integrated financing covered all necessary items for proper implementation from the land acquisition to the financing of production costs, including fixed investment costs (clearance of areas, electrification, storehouses, silos, formation of pastures, construction of reservoirs, etc.), and semi-fixed costs (machinery, equipment, animals, etc.).

- The repayment periods were equal or longer than the normal cases.

- The financing limits were significantly higher.

- The availability of resources was in general always opportune and appropriate to the needs.

These financing characteristics, together with other Program's characteristics, made this financing very attractive to countless producers who became interested in coming from other Brazilian regions for the development of the Cerrados region agricultural frontier.

The interest rates shown in Table 3.2.1 were based on the MCR (Manual of Rural Credit) defined by the Central Bank of Brazil. In the initial phase of Prodecer II, the rate of 3%+ORTN (public bond indexed to inflation) was utilized, and between 1987 and 1988, the rate was 9%+OTN (public bond) for fixed and semi-fixed investments, and 3.6 and 8%+OTN for production cost. From 1989 on, the rate was 12%+IPC (Consumer Price Index). Then it was reduced to 9%+BTN from the second half of 1989, although it started to rise again to 12.5%+TR in the first half of 1991. From 1994 on, the rate of 6%+TJLP (Long Term Interest Rate) was introduced and continued to be used until the conclusion of the program.

A brief comparison of Prodecer to other agricultural credit programs during this time (including some special programs) is presented below:

Prodecer I PILOT main attractions were the integrated financing, the financing limits and the availability of resources, considering that the financing conditions were very

similar to those of special programs in progress, especially to POLOCENTRO, which offered subsidies, indispensable for this type of Program.

Prodecer II from the beginning, Pilot as well as Expansion, was strongly influenced by the conditions in force in Phase I, although with the financial clauses already suffering the effects of the introduction of currency indexing items in the contracts which progressively affected the uniqueness of the Program until its conditions became practically identical to the ordinary rural credit with the total elimination of subsidies. However, the integrated financing characteristics were maintained as advantages as well as the more favorable financing limits and the still assured availability of resources, although not always so flexible and opportune as in the first phase.

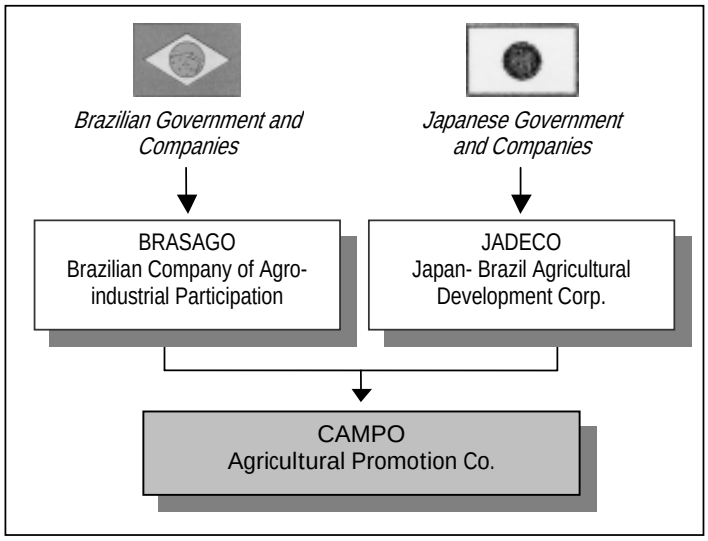
Prodecer III PILOT started with similar conditions to those in force at the conclusion of phase II. At first, its conditions were very similar to those in force for rural credit in general (due to improvements), but then recent changes in the agricultural credit policies made the financing conditions of some special programs even more attractive than the Prodecer ones, although the advantages mentioned in the previous section were maintained.

3.3 MANAGEMENT OF PRODECER

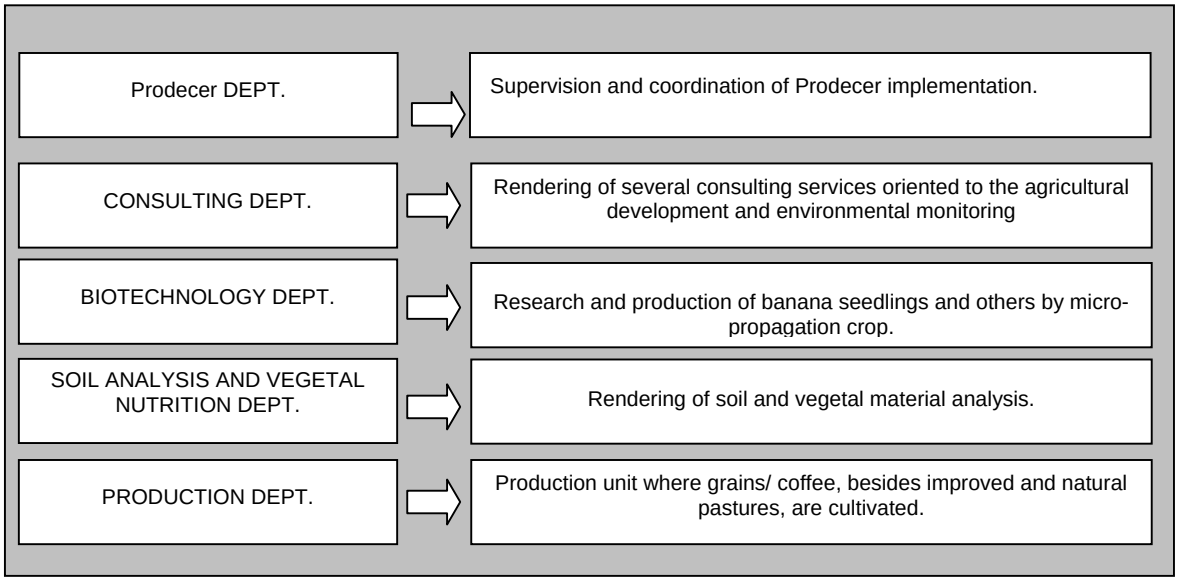
According to the Prodecer concept, besides the final beneficiaries, the two producer structures were fundamental for its execution ; (1) CAMPO, as the execution coordinator, and (2) cooperatives as the mechanism for producer organizations with executive responsibilities during the implementation as well as after the projects consolidation.

3.3.1 Role of CAMPO as execution coordinator company

As shown in the financing structure of Prodecer (section 3.2), its implementation demanded the participation of several government and private sector organizations from both countries. In order to promote the relationship of these organizations and to drive the program as planned, the existence of a coordinator organism was conceived. CPA – Agricultural Promotion Co. was then created by the two countries in 1978, and afterwards renamed to CAMPO.



This company always performed the coordination of Prodecer execution as a priority although it also assumed some executive actions related to the Program development, such as the review of cooperatives, selection of producers, design of individual technical projects, guidance and technical assistance, etc. From the entrepreneurial point of view, in order to assure its shareholders interests as specified in its Statues and other constitutive instruments, CAMPO implemented a direct administration farm in the neighborhood of the Coromandel Colonization Project, in Coromandel municipality in Minas Gerais at the beginning of the first Program phase. As time passed, CAMPO searched for a safe and healthy administration and tried to adapt to the economic circumstances of the country. Thus, with the authorization of its shareholders and using its technical and administrative competencies in addition to a large knowledge of the Cerrados region, CAMPO diversified its activities and sources of revenue as shown below.



The general aspects of the role and functions of CAMPO in Prodecer are presented below.

It is noteworthy that due to CAMPO's performance and activities, transparency in the correct application and utilization of resources was assured. Due to experiences accumulated during the execution of each phase, it was possible to expand the Program and to carry out efficient transitions to the following phase for more than 20 years.

Table 3.3.1 Roles and Functions of CAMPO

1. OBJECTIVE	Support, promotion and implementation of agricultural production activities in the Cerrados region.
2. MAIN ACTIVITIES	
1) Studies, Planning and Coordination of the Program	- Design of the execution and financing plan for the project. Annual consolidation of program achievements. - Signature of work agreements with the participant cooperatives, and technical agreements (rules of procedures with the banks, cooperation agreements with the State governments where the projects were implemented), relationship and coordination with other concerned organizations.
2) Definition of Project area.	- In Prodecer I, CAMPO acquired and distributed the land. - In Prodecer II and III, CAMPO supported the cooperatives in choosing the project area, through studies on pre-selected areas and showing the results to the selected cooperatives.
3) Selection of the Project participants (producers and cooperatives)	- Selection of cooperatives based on pre-established criteria. - Final selection of producers among those selected by the cooperatives. - Part of the producers were directly selected by CAMPO, among farmers and agrarian science professionals who were already established in the region at the time of project implementation.
4) Design and Implementation of the Plan	- Measurement, demarcation and design of the land use and infrastructure plan per project (Master Plan).

5) Design of the Rural Administration Plan (individual technical project) and render Technical Assistance.	- Design of the rural administration plan through the consolidation of rural administration techniques by region and design of respective manuals, in collaboration with the Federal and State government's research organizations. - CAMPO carried out technical assistance work during the first 4~5 years, then transferred this responsibility to the cooperatives. - In the first phase, this initial work was carried out through an agreement with EMATER-MG.
6) Recommendation about and Supervision of the financing resources release.	- Recommendation and guidance, according to the projects designed as mentioned in the previous item, for the release of financing resources to the producer based on the banks criteria and rules, and supervision of the use of these resources. Due to this work, the regular and appropriate use of resources was possible.
7) Administration of the Demonstration Fields	- Support of installation and administration of the areas for demonstration and/or production and distribution of seeds, as a supporting activity to the producers, according to the needs and possibilities.
3. ADMINISTRATIVE STRUCTURE	
1) Number of Employees (as of March 2001)	- Headquarters: 38; Biotechnology sector: 46 (Paracatú) and 30 (Cruz das Almas); Coromandel Farm: 7; Lab. of Analysis: 10; and Regional Offices: 30 - Total: 161
2) Sources of Revenue	- Prodecer Supervision Fee, equivalent to 1% of the financing balance due (paid by the Ministry of Agriculture of Brazil). - Project design fee, equivalent to 2% of the financing value released by the banks to the producers. - Technical assistance fee to producers, equivalent to 2% of the financing balance due.
3) Administrative Conditions	- The self-sufficiency of CAMPO was defined in the R/D through revenue deriving from planning, coordination, and other services. - Therefore, most of the revenue came from several fees mentioned in the previous item, in addition to revenue coming from the other mentioned departments activities. - With the completion of Prodecer, the trend of revenue from several fees is down. At present, the administrative reform of CAMPO is under analysis.

3.3.2 Colonization method with the cooperatives leadership

The selection of participant cooperatives was carried out by CAMPO, based on criteria such as financial conditions, experience with grains, technical level, administrative structureetc. After this analysis and approval by the financing agent, the selected cooperatives were ratified by the Ministry of Agriculture.

In Prodecer, the cooperatives perform specific and other special activities such as initial support to the rural administration, selection of producers, etc. The following Table3.3.2 presents the functions and main activities of cooperatives in the Program:

Table 3.3.2 Functions and Main Activities of Cooperatives

FUNCTION	ACTIVITIES
1.Selection of Cooperatives	- Selection of cooperatives to participate in Prodecer examined by Ministry of Agriculture, based on standards such as management foundation, technological capability, experience of crop production, financial condition and so on, with the final selection by CAMPO.
2.Role of Cooperatives 1) Selection of Producers	- The selection of producers was carried out with pre-selection done by the participant cooperatives and final selection by CAMPO. - The cooperatives, in general, gave priority to the children of cooperating families in their origin region. - In most of the projects, 80% of the producers came from other regions – especially South and Southeast – and 20% were selected by CAMPO among farmers and agrarian science technicians of the region, when such persons were available. With this 20%, CAMPO aimed not only to promote better local integration, but also to diffuse and to stimulate the formation of associations and new agricultural technologies in the region.
2) Acquisition and Distribution of Land	- Within the previously defined regions, the cooperatives pre-selected the project areas based on natural and socio-economic conditions. After this preliminary selection, CAMPO carried out detailed studies and surveys to analyze if these areas were appropriate and convenient according to the Program principles. - Based on the CAMPO study, and after juridical and documents analysis, the cooperatives purchased the land. - Then they were measured, the allotment project was designed, the land was demarcated and transferred to the producers. - In the design of the allotment project, besides strict obedience to environmental legislation, concepts such as the "*condominium*" the collective form of preservation area were introduced. A rational and balanced division according to the existing natural resources was sought.
3) Construction of collective facilities and implementation of infrastructure within the Project area.	- Those cooperatives that implemented administrative and production support infrastructure, and in some cases also took the responsibility of implementing basic infrastructure works.
4) Acquisition and Distribution of inputs, machinery and equipment for the production and commercialization of agricultural products.	- The cooperatives purchased and distributed inputs, machinery and equipment, etc. Besides that, they rendered services of storage, processing and commercialization of agricultural products. - For that purpose, they constructed offices, silos, storehouses, drying facilities, etc. The resources for these works mostly came from Prodecer financing. - As expected, to the degree that there is incentive for the establishment of new producers in the region, the number of cooperative members also increases, optimizing the utilization of their physical and administrative facilities.
5) Technical Assistance	- The cooperatives, after the conclusion of project implementation, became responsible for the technical assistance and guidance to the producers.

It is important to mention that the agreements signed by both countries, in a more or less explicit and detailed way, defined that the implementation of basic economic and social infrastructure, such as access roads, electric energy, collective irrigation works, communication, schools, health centers, etc., is the responsibility of Federal but mainly State governments.

The construction of roads and the supply of electric energy for Prodecer I were mostly carried out with resources from POLOCENTRO, through the State electric energy company and by the Minas Gerais State Government. In Prodecer II, there was no uniformity in the execution. There were projects already provided with paved roads, electric energy or that rapidly got improvements with Federal and/or State government resources, but there were also projects where the cooperatives and producers had to bear the costs of opening/implementation and/or maintenance, and that even until now lack basic public investment. It is evident that these deficiencies harmed and still harm the development and performance of producers and their cooperatives, besides increasing production costs. In Prodecer III, there have been delays in the construction of roads and facilities for electric energy supply. The basic reason for this situation is the deficiency of public finances in the last years, especially at the State government level, as mentioned before.

CERRADOS AGRICULTURAL DEVELOPMENT AND NIKKEI COOPERATIVES

The pioneer role and the achievements of the nikkei cooperatives in the Cerrados region had an important influence in the adoption of the colonization method by Prodecer. The Agricultural Cooperative of Cotia (CAC-CC), which was a more representative one, participated in the implementation of PADAP (Project of Guided Settlement in Alto Parnaíba), considered as one of the precursors of Prodecer. In 1974, CAC installed a branch in the Municipality of São Gotardo/MG, the central region of the aforementioned project, transforming this municipality in a pioneer nucleus of Cerrados development. In April of the same year, the first 24 settlers were selected (all cooperative members coming from the States of São Paulo and Paraná) for this project. Then, in December, another 65 settlers were called, and the colonization started with a total of 89 producers. In 1979, the production already surpassed 2 tons/ha for soybean and 3.6 tons/ha for irrigated wheat, with very good coffee crops. This showed the region's agricultural viability in practice.

Then President Ernesto Geisel visited the region with his Minister of Agriculture Dr. Alysson Paulinelli and highly praised the project, seeing *on site* the transformation of Cerrados into a great producing region. During the same year, CAC was invited by both governments to participate in Prodecer.

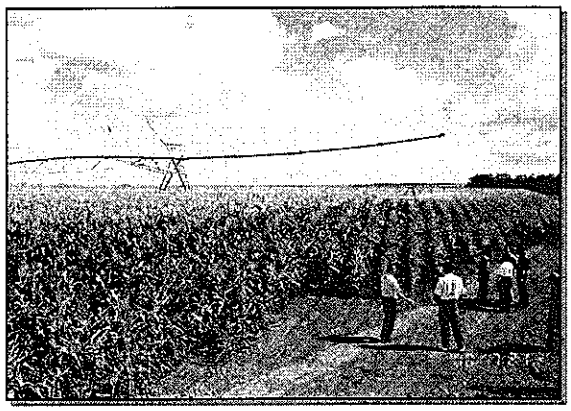
Apart from the fact of being considered the biggest Brazilian cooperative at the time due to its experience in agricultural production and commercialization and in the development of Cerrados, CAC was responsible for the settlement of producers in the Mundo Novo Colonization Project (Paracatu/MG) of Prodecer I, and in the Ouro Verde Colonization Project (Barreiras/BA) of Prodecer II. In this second phase of the program, other cooperatives with strong nikkei presence also took part, such as the Sul Brazil Agricultural Cooperative, and the number of nikkei families settled in Prodecer projects reached 154, representing 22% of the total number of producer families.

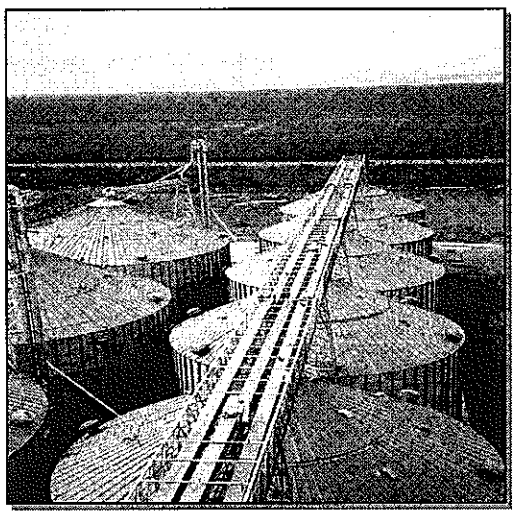
3.4 CONTENTS AND ACHIEVEMENTS OF PRODECER

3.4.1 Investment and results

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.

The total applied resources[1)] in Prodecer were about US$553.0 million (i.e., Prodecer I: US$ 60million; Prodecer II: US$375 million; Prodecer III: US$118.0 million). As a result of this investment, 20,000 new direct employment posts and 40,000 indirect ones are believed to have been created. Table 3.4.1 presents the applied investment and the expected results in production volume, production value, creation of employment posts and generated taxes, based on the implementation of administrative and productive infrastructure through Prodecer and other information.





1) In these resources, those used in the implementation of basic infrastructure by the Federal and State governments are not included nor the US$17,1 millions exclusively used by the Brazilian side in the implementation of the PC Entre-Ribeiros I.

Tabla 3.4.1 Amount of Project Financing and Expected Production per Project (1/2)

Name of the Project	Production (ton)	Production (10^3US$)	Generated Taxes (10^3US$)	Employment		Investment (10^3US$)	Participant Cooperatives and Variations	Resources transferring organisms	Irrigation Area (ha)	Agricultural and Rural Infrastructure
				Direct	Indirect					
PRODECER I	**120,200**	**30,475**	**5,385**	**4,400**	**8,600**	**60,030**			Potential 8,746 Utilized 7,950	
Irai de Minas	21,600	5,600	982	900	1,600	11,610	(Cooperative of Swine Raisers of Encantado-COSUEL) / COPAMIL - Agricultural Mixed Cooperative of	BDMG	3,030 3,030	Silos for grains: 61,172 ton. Seeds processing unit: 4,800 ton. Scale for trucks: 80 ton. Drying machine, office.
Mundo Novo	55,000	14,000	2,500	2,400	4,800	26,500	(Agricultural Cooperative of COTIA) / COOPERNOVO	BDMG	2,198 1,635	Silos for grains: 41,000 ton. Storehouse for inputs: 2.300 ton. Seeds processing unit, coffee processing unit, scale for trucks, laboratory, residences, etc..
Coromandel	11,500	2,875	503	600	1,200	4,800	Producers Association of Coromandel	BDMG	94 94	
Paracatu Entre Ribeiros I	32,100	8,000	1,400	500	1,000	17,120	COOPERVAP - Agricultural Cooperative of the Vale do Paracatu Ltd.	BDMG	3,424 3,191	Silos for grains: 64,000 ton. Seeds processing unit, Supermarket, Gas station, Dairy products and milk processing plant, Roughage factory (capacity, 12 ton/h), Mineral supplement factory (capacity, 6 ton/h)
PRODECER II- Pilot	**79,610**	**20,070**	**3,515**	**5,600**	**11,200**	**100,000**			8,032 846	
Ouro Verde	26,830	6,700	1,170	1,600	3,200	26,000	(Agricultural Cooperative of COTIA) / COOPROESTE	Banco do Brasil S/A	3,226 846	Silos for grains: 24,200 ton. Storehouse for inputs: 3.000 ton. Seeds processing unit, scale for trucks, office, residences.
Brasil Central	24,500	6,370	1,115	2,000	4,000	24,000	COACERAL - Agricultural Cooperative of Cerrado Brasil Central	DESENBANCO	1,800 -	Silos for grains: 24,200 ton. Storehouse for inputs: 3.000 ton. Seeds processing unit, scale for trucks, office, residences.
Ana Terra	15,860	3,900	690	1,000	2,000	22,000	(COOPERCANA) - Association	BNCC / Banco do Brasil S/A	846 -	Silos and storehouses for grains: 42,000 ton. Scale for trucks: 60 ton. Drying machine, office, residences.
Piuva	12,420	3,100	540	1,000	2,000	28,000	COOPERLUCAS - Agricultural Cooperative Lucas do Rio Verde	BEMAT / Banco do Brasil S/A	2,160 -	Silos for grains: 42,000 ton. Storehouse for inputs: 1.020 ton. Seedlings: 150,000 units. Seeds processing unit, scale for trucks, office, residences.
II- Expansion	**196,940**	**49,260**	**8,665**	**8,450**	**17,170**	**275,028**			21,358 9,387	
Paracatu Entre Ribeiros II	7,660	1,930	340	500	1,000	23,655	COOPERVAP - Agric. Cooperative	BDMG	3,000	The infrastructure of Entre Ribeiros I is utilized
Paracatu Entre Ribeiros III	7,660	1,910	330	580	1,160	19,317	COOPERVAP - Agric. Cooperative of Vale do Paracatu Ltd.	Banco do Brasil S/A	2,400 -	The infrastructure of Entre Ribeiros I is utilized
Paracatu Entre Ribeiros	3,870	970	170	300	600	9,103	COOPERVAP - Agric. Cooperative	BNCC	1,140	The infrastructure of Entre Ribeiros I is utilized

Source: 1) Dados e Informações Gerais, PRODECER, CAMPO, 2000 2) Número de Colonos por Projeto, CAMPO, 1999
3) Dados Workshop, CAMPO, 2000 4) Dados Básicos dos Projetos do PRODECER I, II, III, 2000

Tabla 3.4.1 Amount of Project Financing and Expected Production per Project (2/2)

Name of the Project	Production (ton)	Production (10^3US$)	Generated Taxes	Employment		Investment (10^3US$)	Participant Cooperatives and Variations	Resources transferring	Irrigation Area (ha)	Agricultural and Rural Infrastructure
				Direct	Indirect					
Guarda Mor	20,170	5,030	880	1,000	2,000	24,350	(Central Agricultural Cooperative of the Sul Brasil Ltd.)→OESTE MINEIRO	Banco do Brasil S/A	4,180 2,000	Silos for grains: 18,000 ton. Seeds processing unit: 50,000 sacas. coffee processing unit: 60 sc/h. Scale for trucks, office, residences.
Bonfinopolis	25,500	6,380	1,110	270	750	38,300	(Femecap-Agricultural Cooperative of the Federacao Meridional Ltd. →COANOR)	BDMG	2,300 1,982	Silos for grains: 37,850 ton. Storehouse for inputs: 2,000 ㎡. Scale for trucks: 60 ton. Drying machine, office.
Piratinga	29,500	7,380	1,290	1,400	2,800	41,800	(COOPERTINGA-Agricultural Cooperative of the Regiao de Piratinga Ltd.)	Banco do Brasil S/A、BNCC	2,698 1,998	Silos for grains: 39,000 ton. Storehouse for seeds: 3,200 ton. Storehouse for inputs: 1,750 ㎡. Fejon beans packing unit: capacity 48,854 package.
Buritis	19,670	4,920	860	1,500	3,000	24,200	Coopago-Agricultural Cooperative of the Planalto Goias Ltd.→ COOACERTIS	Banco do Brasil S/A, BNCC	2,140 60	Silos for grains: 25,920 ton. Seeds processing unit: processing capacity: 5,000 ton. Storehouse for inputs: 1,000 ㎡. Scale for trucks: 60 ton. office, residences: 5 casas.
Paineiras	18,660	4,670	880	800	1,600	23,129	(Cocari-Cooperative of the Cafeicultores de Mandaguari Ltd.)→COACER	Banco do Brasil S/A, BNCC	2,698 1,998	Silos for grains: 96.100 ton. Seeds processing unit, coffee processing unit.
Cristalina	10,410	2,600	455	100	260	9,428	(Cocari-Agricultural and Coffee Cooperative of the Mandaguari Ltd.)→COACER	Banco do Brasil S/A	550	The infrastructure of Paineiras is utilized.
Buriti Alto	15,640	3,910	680	1,500	3,000	35,650	(Cooplac -Agricultural Cooperative of the Santo Antonio da Platina)→ COPACEN	Banco do Brasil S/A, BNCC	1,345 919	Silos e armaz é ns para gr ã os: 38.400 ton. Seeds processing unit, Storehouse for inputs, maintenance unit, office, residences
Alvorada	38,250	9,560	1,670	500	1,000	26,096	(Camas-Agricultural Cooperative of the Mista de Alvorada do Sul)→	Banco do Brasil S/A	-	Silos e armaz é ns para gr ã os: 93.600 ton. Seeds processing unit, Storehouse for inputs, Drying machine, Scale for trucks, office, residences
PRODECER III - Piloto	**171,190**	**32,970**	**5,027**	**680**	**1,360**	**118,000**			4,100 1,520	
Gerais de Balsas	84,390	19,310	2,978	330	660	60,000	BATAVO NOR.	Banco Nordeste	2,050 1,520	Silos for grains: 60,000ton
Pedro Afonso	86,800	13,660	2,049	350	700	58,000	(Coopersan - Agricultural Cooperative of the São Joã o de Boa Vista)→COAPA	Banco do Brasil	2,050 -	Silos for grains: 60,000ton
Total	**667,940**	**132,775**	**22,592**	**19,130**	**38,330**	**573,058**				

Source : 1) Dados e Informações Gerais, PRODECER, CAMPO, 2000 2) Número de Colonos por Projeto, CAMPO, 1999
3) Dados Workshop, CAMPO, 2000 4) Dados Básicos dos Projetos do PRODECER I, II, III, 2000

3.4.2 Results and evolution of Prodecer agricultural production

(1) Results of the agricultural production

In May 1981, the first soybean crop was harvested in Prodecer I. Ever since, CAMPO carries out surveys about project agricultural production. These surveys are based on interviews and information collected by the cooperatives, thus it is considered extra-official information. Even so, it is possible to visualize production trends in the projects as time passes.

Table 3.4.2 presents the evolution of cultivation area and production volume of main crops in Prodecer projects during the three phases.

Table 3.4.2 Evolution of Cultivation Area and Production Volume of Main Crops in Prodecer

Year	SOYBEAN		MAIZE		FEIJÃO		RICE		TOTAL	
	Area (ha)	Prod (ton)	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	26,912	29,637
82/83	23,620	39,661	700	2,129	-	-	3,119	6,206	31,932	51,183
83/84	22,941	34,254	1,200	3,299	451	671	3,285	2,154	28,774	41,423
84/85	27,072	57,635	3,004	10,891	264	470	4,467	7,629	34,950	76,902
85/86	21,553	43,627	6,344	27,834	-	-	4,888	7,301	32,785	78,762
86/87	32,544	50,086	12,277	49,219	-	-	15,325	13,199	60,146	112,504
87/88	68,475	114,934	13,812	65,997	198	136	22,907	28,392	105,392	209,459
88/89	128,777	208,238	13,060	56,704	1,079	2,103	4,433	6,632	147,349	273,677
89/90	133,231	135,857	15,900	49,013	2,540	3,549	2,668	3,141	154,451	191,984
90/91	94,216	201,706	28,569	109,636	7,924	11,162	16,899	25,443	147,652	348,075
91/92	98,978	192,959	31,328	115,097	5,082	5,080	22,904	30,749	158,292	343,885
92/93	106,382	209,277	15,305	48,012	380	526	12,777	49,736	134,844	307,551
93/94	105,016	240,637	28,403	149,024	1,369	2,232	4,110	6,704	138,898	398,597
94/95	107,850	237,901	31,520	165,950	5,832	9,617	4,611	8,785	149,813	422,253
95/96	90,347	185,032	28,919	146,006	3,353	6,397	1,605	3,678	124,224	341,113
96/97	92,940	196,935	30,958	165,447	4,101	7,568	6,785	12,185	134,975	382,418
97/98	112,675	259,842	25,817	137,808	6,166	10,528	6,943	13,529	151,641	421,780
98/99	94,504	231,662	25,726	141,818	9,594	14,144	11,192	30,273	141,056	417,970
99/00	96,679	257,274	33,622	210,087	9,280	20,176	8,924	30,234	148,505	517,771

Source: 1) Basic data of the Prodecer projects, CAMPO, 2000
2) General data and information, Prodecer, CAMPO, 1997, 1998, 2000

As observed in Table 3.4.2, the main crops of Prodecer by cultivated area are: soybean, maize, feijão 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 crops and more recently cotton crops; however, they are not shown in the Table.

(2) Evolution of agricultural production by Prodecer phase

The productivity targets for soybean and maize, after stabilization, were as follows:

	Prodecer I	Prodecer II	Prodecer III
Soybean	2.2 ton/ha	2.2 ton/ha	3.0 ton/ha
Maize		3.5 ton/ha	6.0 ton/ha

Source:

Prodecer I and II: “Japanese-Brazilian Plan for the Agricultural Development”. JADECO.
Prodecer III: “Japanese-Brazilian Joint Plan for the Prodecer PILOT III”
General information data, CAMPO, 2000.

Figure 3.4.1 shows the annual evolution of the production volume, of productivity and of cultivation area for soybean and maize, which are the two main crops of Prodecer. As observed, in Phase I and II the initially established productivity targets were surpassed. In Phase III, the productivity also shows a growth trend, year by year. However, when the projects are compared, we can see a great difference in production volume and cultivation area among them. 1

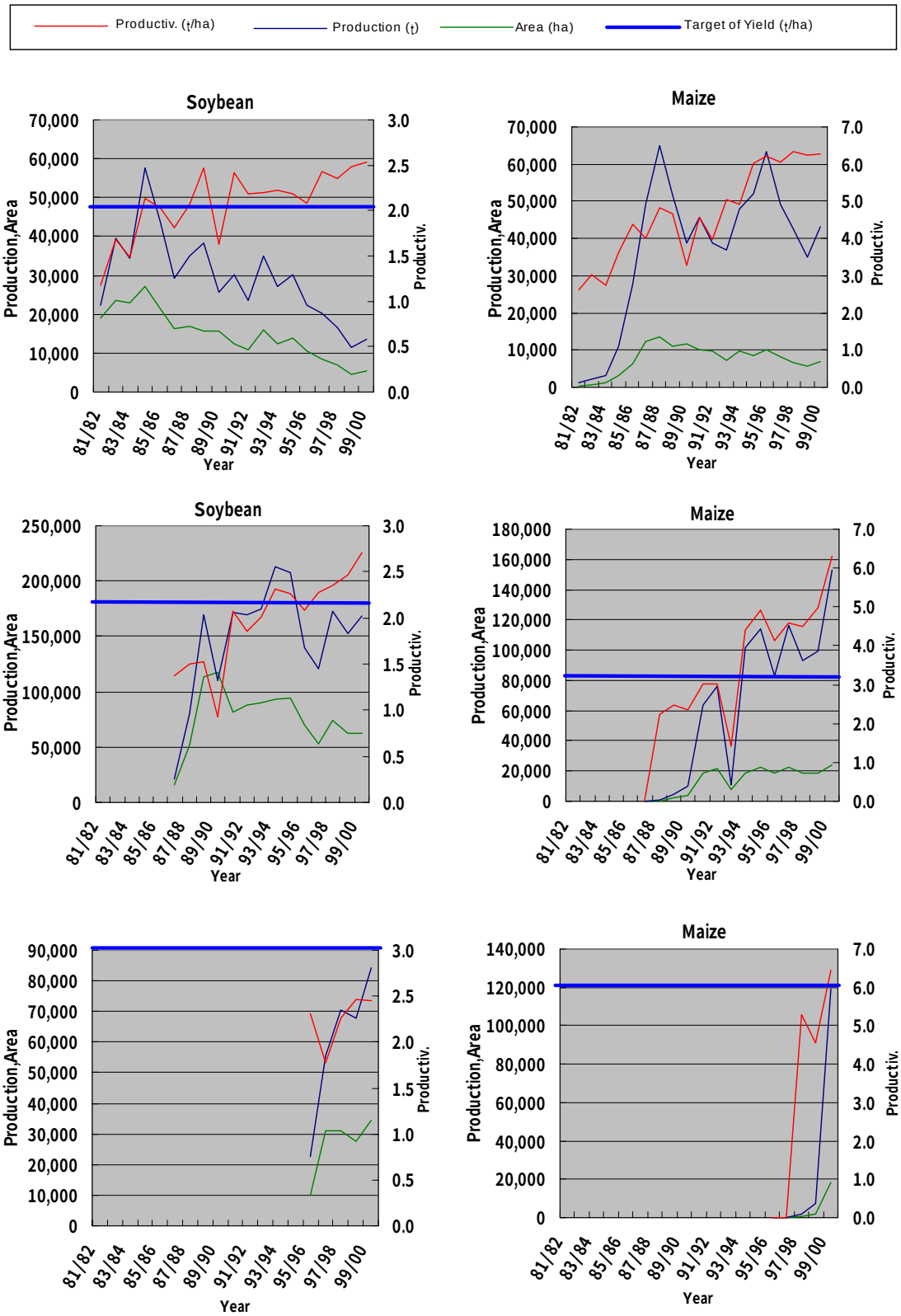


Fig. 3.4.1 Annual Evolution of Cultivation Area, Production Volume and Productivity of Main Crops, per Prodecer Phase

3.5 OTHER ASPECTS OF PRODECER

For the design of this Impact Survey, *site* visits and surveys were carried out in 10 out of the 21 implemented projects, as listed below:

Prodecer I:	*Mundo Novo and Irai de Minas Projects*
Prodecer II:	*Piúva, Ouro Verde, Brasil Central, Cristalina, Paineiras and Bonfinópolis Projects.*
Prodecer III:	*General Projects of Balsas and Pedro Afonso.*

This section summarizes some relevant aspects about the projects, from the obtained information, analysis of the collected data, as well as from the interviews carried out with the producers and respective cooperatives.

3.5.1 Soil-Climatic aspects

The natural characteristics (altitude, temperature, precipitation, soil, topography and predominant original vegetation) of the Prodecer projects are presented in Table 3.5.1 below.

Evidently, all the areas are within the Cerrados region and thus their soils are strongly acid. These soils are predominantly classified as Latosols.

The mean annual precipitation on Prodecer projects is 1,350 mm. Seasons are: clear dry season (April~September) and rainy season (October~March), with the concentration of almost all the rainfall during the rainy season. A peculiar phenomenon called “veranico” which is characterized by dry periods of 5~20 days during the rainy season sometimes occurs. The degree of damage caused by veranico varies mainly regarding its duration and soil characteristics of the region. The damage caused by natural disasters such as drought and hoarfrost, and their frequency, vary from project to project, but hoarfrost is very rare. The implementation of necessary infrastructure for the installation of irrigation equipment is also not uniform in all Prodecer projects. These differences of natural conditions and production conditions among the projects partially explain the differences of production volume and productivity among them as shown in Figure 3.4.1.

Table 3.5.1 Natural Conditions (Altitude, Temperature, Precipitation, Soil, Vegetation) of Prodecer Projects

PILOT PROJECTS I, II AND III

Project	Altitude (m)	Average Temp. (ºC)	Annual Mean Precipitation (mm)	Soil	Topography	Vegetation
Balsas – MA P.C. GEBAL	540	24º a 25º	1,216.7	Red-Yellow Latosol	Flat (0 - 3%)	Cerrado
P. Afonso – TO P.C. P. Afonso	240	26.1º	1,593.5	Red-Yellow Latosol	Slightly Undulated (3 - 8%)	Cerrado
Tapurah – MT P.C. Ana Terra	400	25.2º	1,619.8	Red-Yellow Latosol	Flat and Slightly Undulated (0 - 8%)	Cerradão
Lucas R. Verde – MT P.C. Piuva	430	25.2º	1,619.8	Red-Yellow Latosol	Flat (0 - 3%)	Cerrado Field
Barreiras – BA P.C. Ouro Verde	800	24.3º	1,121.8	Red-Yellow Latosol	Flat (0 - 3%)	Cerrado
Formosa do R. P. – BA P.C. Brasil Central	735	24.3º	1,121.8	Red-Yellow Latosol	Flat (0 - 3%)	Cerrado Field
Iraí de Minas - MG P.C. Iraí de Minas	1,000	20.4º	1,574.7	Dark-Red Latosol	Flat and Slightly Undulated (0 - 8%)	Cerrado
Coromandel - MG P.C. Coromandel	1,140	21.1º	1,474.4	Dark-Red Latosol	Slightly Undulated (3 - 8%)	Cerradão
Paracatu – MG P.C. Mundo Novo	1,000	22.6º	1,438.7	Dark-Red Latosol	Flat and Slightly Undulated (0 - 8%)	Cerrado

Prodecer EXPANSION PROJECTS

Project	Altitude (m)	Average Temp. (ºC)	Annual Mean Precipitation (mm)	Soil	Topography	Vegetation
Paracatu – MG P.C. PER II	530	22º to 24º	1,200.0	Red-Yellow Latosol	Flat (0 - 3%)	Cerrado
Paracatu – MG P.C. PER III	530	22º to 24º	1,200.0	Red-Yellow Latosol	Flat (0 - 3%)	Cerrado
Paracatu – MG P.C. PER IV	530	22º to 24º	1,200.0	Red-Yellow Latosol	Flat (0 - 3%)	Cerradão
Guarda-Mor - MG P.C. Guarda Mor	1,020	20º to 22º	1,500.0	Red-Yellow Latosol	Flat and Slightly Undulated (0 - 8%)	Cerrado
Bonfinópolis - MG P.C. Bonfinópolis	900	22º to 24º	1,300.0	Red-Yellow Latosol	Flat and Slightly Undulated (0 - 8%)	Cerrado
Formoso – MG P.C. Piratinga	1,000	22º to 24º	1,400.0	Red-Yellow Latosol	Flat and Slightly Undulated (0 - 8%)	Cerrado
Buritis – MG P.C. Buritis	900	22º to 24º	1,400.0	Red-Yellow Latosol	Flat and Slightly Undulated (0 - 8%)	Cerrado
Cristalina - GO P.C. Cristalina	950	20º to 22º	1,500.0	Dark Red Latosol	Flat and Slightly Undulated (0 - 8%)	Cerrado
Cristalina - GO P.C. Cristalina	930	20º to 22º	1,500.0	Dark Red Latosol	Slightly Undulated (3 - 8%)	Cerrado
Saõ J. D´Aliança - GO P.C. Buriti Alto	1,000	22º to 24º	1,500.0	Dark Red Latosol	Slightly Undulated (3 - 8%)	Cerrado
Camapuã - MS P.C. Alvorada	650	20º to 22º	1,400.0	Red-Yellow Latosol	Flat (0 - 3%)	Cerrado

3.5.2 Land plots and producers

The average area of the land plots is: 400 ha in Prodecer PILOT I; 410 ha in Prodecer PILOT II and 350 ha in Prodecer EXPANSION. In Prodecer III, the average area of the plot is more than the double the previous phases: 1,000 ha.

All the projects strictly obeyed the environmental legislation in force at the time, and in some of them additional care was taken for preservation areas. In Prodecer III, the preserved area corresponded to 50%. In the other phases, it corresponded to at least 20%. The preservation areas, besides their importance from the environmental point of view, are also important for agricultural activity, by protecting the springs and soils against erosion. In several projects, the collective form of preservation area, "*condominium*", was adopted with the objective of better preserving the natural resources. Apart from this, compulsory measures were adopted in order to maintain sustainable production (such as construction of contour lines, crops rotation, etc.) which are at present already well diffused, other measures exist such as sod seeding, integrated management of blight, correct destination of agricultural pesticide packages, etc.

Over time, some plots ownership has changed. Table 3.5.2 shows these variations, by comparison between the number of initially settled producers and the present situation. The column “number of remaining settlers” indicates those producers who stayed in the project since the beginning.

Table 3.5.2 Number of Producers Settled Since the Beginning of the Project; Substitutions of Ownership and Respective Percentage

	No. Settled Producers	No. Producers who stayed	Substitutions	
			No.	%
Prodecer I PILOT [1)]				
Mundo Novo	48	22	26	55
Irai de Minas	26	15	11	43
Coromandel	18	6	12	67
sub-total	92	43	49	54
(Entre Ribeiros I) [2)]	(41)	(32)	(9)	(22)
Prodecer II PILOT				
Ouro Verde	48	36	8	25
Brasil Central	38	36	2	6
Ana Terra	40	40	0	0
Piuva	39	33	6	16
Sub-total	165	145	20	23
Prodecer II EXPANSION [3)]				
Entre Ribeiros II	28	18	10	36
Entre Ribeiros III	20	15	5	25
Entre Ribeiros IV	10	10	0	0
Guarda Mor	37	27	10	38
Bonfinópolis	49	34	15	31
Piratinga	53	45	8	26
Buritis	42	25	20	41
Paineiras	29	27	2	7
Cristalina	16	15	1	7
Buriti Alto	40	28	12	30
Alvorada	56	34	22	40
Sub-total	380	278	102	27
Prodecer III PILOT				
Gerais de Balsas	40	40	0	0
Pedro Afonso	40	40	0	0
Sub-total	80	80	0	0
Grand Total	717	466	251	35

1): In the PILOT PROJECTS, the figures are based on interviews carried out in the cooperatives during *on site* visits, and on CAMPO data.

2): The Entre Ribeiros I Colonization Project was a colonization project carried out separately by the Government of Brazil, based on the Prodecer concept, immediately after the completion of Prodecer I. Its producers and changes were not included in the above totals.

3): Prodecer EXPANSION data are based on the report "Final Report on Special Assistance for Project Sustainability on Cerrados Agricultural Development Cooperation Project, OECF, 1999".

The producers that entered the projects in the implementation phase totaled 717 families. So far, 251 have left the projects, and their plots were transferred to other farmers. The main causes for their departure were financial difficulties and impossibility to repay debts. This situation was also strongly influenced by the activities of cooperatives and the presence or not of active leaders among the producers, who tried to search for solutions for these difficulties and problems, as well as in the negotiation of debts and new resources.

Those initial producers who left the project transferred their plots to other producers. Sometimes, the plots were transferred to colleagues from the same project. Thus, almost all the areas have been continuously in production, showing a high utilization rate. There are almost no abandoned or unutilized plots even after the departure of their owners.

In Brazil, particularly since the 70's, several other settlement projects have been executed in agricultural frontiers – some in the Cerrados region. Most of them target small-scale producers. However, these projects show a high departure rate, making the project maintenance difficult, besides having environmental problems due to land degradation after abandonment of the cultivated area by the settler. Furthermore, in several cases, the basic social and infrastructure conditions are inferior to those offered by Prodecer: there are lots of difficulties to obtain resources for production cost, there is lack of structure for the development of an appropriate agricultural technology, and the technical assistance and rural extension are deficient.

These facts in relation to other projects, as well as the rate of settler substitution in Prodecer, show the difficulties for the consolidation of projects aiming at the opening the agricultural frontier by the colonization and settlement method in the Cerrados region.

3.5.3 Rural administration

The characteristics of the project rural administrations, surveyed through interviews carried out with producers and cooperatives, are presented below and summarized in Table 3.5.3.

[Prodecer I]

The average area of plots in this phase of Prodecer at the start of implementation was 400 ha. However, there were producers who expanded their areas by purchasing new plots or areas outside the project. The five interviewed producers, in this phase, had 1,000 ha on average. The cultivated area was approximately 800~900 ha, where besides the production of soybean and maize, coffee crops are being expanded. On the other hand, there were producers who despite not having expanded their areas are increasing their yield through the introduction of more profitable crops, in addition to the traditional ones.

The common ground among all the producers of this phase was that most of them were trying to implement irrigation through central pivots. The introduction of irrigation equipment allows the reduction of damage caused by veranico, as well as making crop rotation easy with good results for crop diversification. Another important point is the

increasing adoption of sod seeding. This technique reduces production cost due to lower utilization of agricultural machinery, protects the soil against the erosion, facilitates the development of microbiological activity, and increases the organic matter contents and water holding capacity of the soil.

[Prodecer II]

In this phase, higher diversification of crops was planned, especially perennial crops (fruits and rubber trees). Due to the size of this phase, situations are very diversified, but three types were identified as shown below. :

Type 1: *Projects without irrigation equipment having upland agricultural production difficulties (Entre Ribeiros II, III and IV);*

Type 2: *Projects where the applied technology made only the production of grains viable (Buritis, Buritis Alto, Alvorada, etc.); and,*

Type 3: *Projects where crop diversification attempts were successful (especially Ouro Verde, Bonfinópolis, Guarda Mor, Cristalina and Paineiras).*

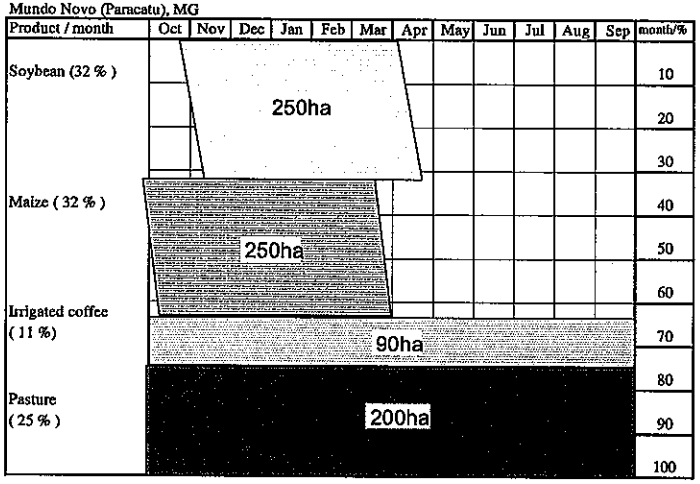
Several restrictions limit crop diversification such as the lack of irrigation equipment (which obviously limits the availability of water), distance between to the consumer center and/or agro-industrial park, and the quality of transport. The main adopted alternative crops in irrigated areas were: coffee, feijão bean, garlic, onion, green peas, fruits, etc., and cotton, in upland production.

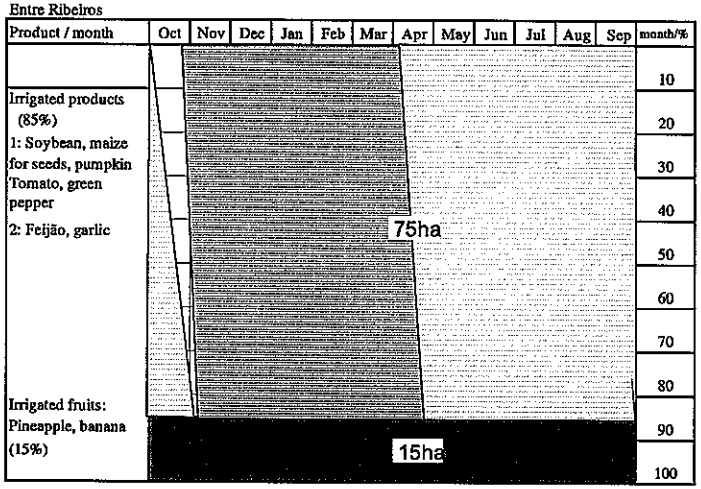
[Prodecer III]

The planning for this phase included the installation of irrigation equipment and perennial crops in all plots. Since, this target has not yet been attained, production diversification in some plots is frustrated. Where the installation of this equipment was possible, pineapple and banana are main products with feijão bean and soybean for seeds.

Table .3.5.3.(1) Characteristics of the rural administration in the PRODECER I project

PRODECER I MG	Mundo Novo (MG) (Paracatu, average of two farmers interviewed)	Entre Ribeiros (MG) (Paracatu, average of three farmers interviewe)
Property area	800 – 1,000 ha	300 ha
Cultivated area	800 – 900 ha	120 ha (only irrigated)
Main products	Soybean, maize, coffee (irrigated), feijão bean	Soybean, maize for seeds, pumpkin, tomato, green pepper, feijão bean, garlic
Other cultivated products	Watermelon and cotton (6,000-7,000 ha of cotton cultivated in the whole Paracatu area)	Pineapple, banana, garlic (April – October), carrot, potato
Reservation area	200 ha	60 ha
Yield	Soybean: 2.5 – 3.5 ton (from 40 – 60 up to 70 bags / ha) Maize: 8 – 9 ton /ha Coffee: 27 – 28 bags /ha (without irrigation), 75 bags /ha (irrigated)	Soybean: 3.0 ton/ha, tomato 60 ton (contracted cultivation), all products area cultivated using central pivot.
Sod seeding, crops rotation	Sod seeding carried out by more than 50% of the farmers. Rotation of soybean and maize.	Rotation of soybean and maize
Agricultural machinery	03 – 05 tractors, 01 harvester	-
Irrigation equipment	Central pivot for coffee cultivation (1-2 sets)	3,000 ha of Central Pivot in a total of 10,300 ha of settlement area.
"Green Soybean"	Financing conditions vary yearly. Selling value for Cargill and Ceval (as of December, 2000) Soybean: US$ 9.5 / bag, Maize: R$8-9 / bag	Financing conditions vary yearly. Selling value for Cargill and Ceval (as of December, 2000) Maize: R$10 – 11.5 / bag
Debt	-	-
Natural Conditions	Occurrence of veranico, mean precipitation of 1,200 mm, altitude: 900 m	Veranico occurs frequently, altitude: 500-800m

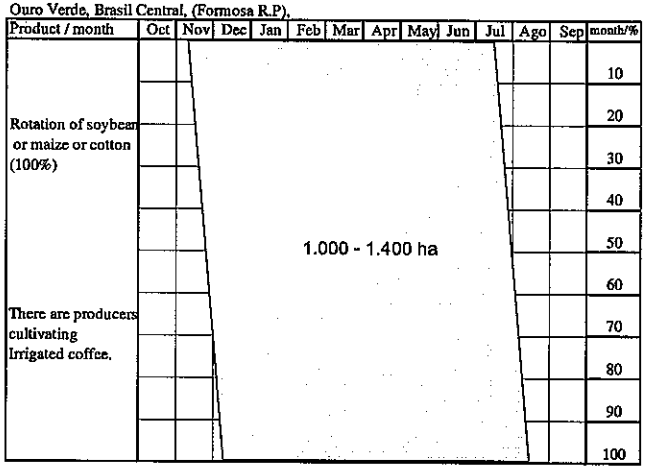


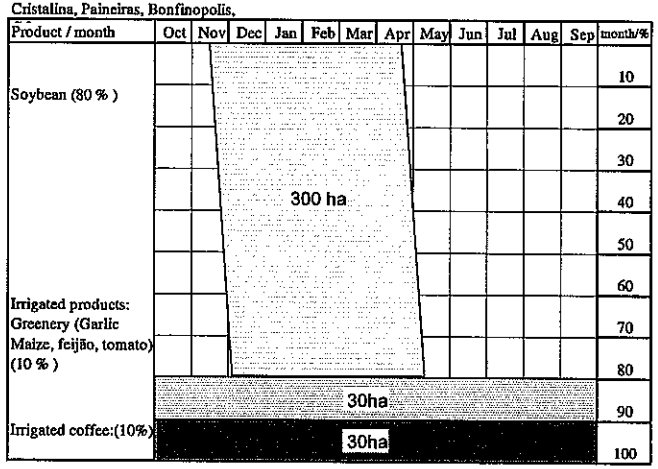


Source: Study survey data

Table .3.5.3.(2) Characteristics of the rural administration in the PRODECER II project

PRODECER II BA, MT, MS, GO, MG	Ouro Verde, Brasil Central, Bahia (Formosa R.P) Average of three farmers interivewed	Cristalina, Paineiras (GO) Bonfinópolis (MG) Average of two farmers interviewed
Property area	815 ha (average)	600 – 1,000 ha (80%)
Cultivated area	1,000 – 1,400 ha (interviewed)	350 – 400 ha (average)
Main products	Soybean, maize, cotton, coffee (irrigated), feijão	Soybean, maize, irrigated greenery, irrigated coffee, cotton, feijão bean
Other cultivated products	Banana, other fruits	Onion, pumpkin, watermelon, garlic
Reservation area	190 ha (average)	80 ha
Yield	Soybean: 50 – 63 bags /ha Maize: 54 bags / ha Coffee (irrigated), 60-99 bags / ha (average of 12 bags/ ha in Brazil)	Soybean 3.0 ton/ha, tomato 60 ton (contracted cultivation). All products are cultivated under central pivot.
Sod seeding, crops rotation	Rotation (soybean – maize). Demonstrative experimental study carried out together with EMBRAPA	Rotation (soybean – maize)
Agricultural machinery	Silo: 25,200 ton: Storehouse	Seeds and coffee processing unit, silos, etc.
Irrigation equipment	Central pivot for irrigated coffee crop (1 to 2 pivots)	Almost all producers have central pivot (Cristalina and Paineiras)
"Green Soybean"	Financing conditions vary yearly. Utilized for 80% of the PRODECER settlers.	Financing conditions vary yearly. The advanced value per producer, in average US$ 40,000, is insufficient, and thus they have to ask for loans from fertilizers companies at interest rates of 34 – 40%
Debt	R$ 700 – 1,200 thousand / person (Debt of PRODECER financing)	R$ 1,000 – 2,000 thousand / person (Debt of PRODECER financing)
Natural Conditions	Rainy season: October to April, Occurrence of veranico	Rainy season: October to March

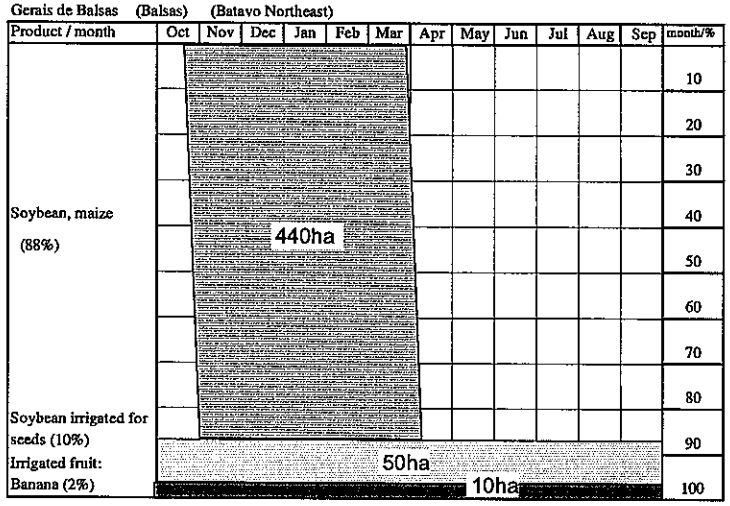


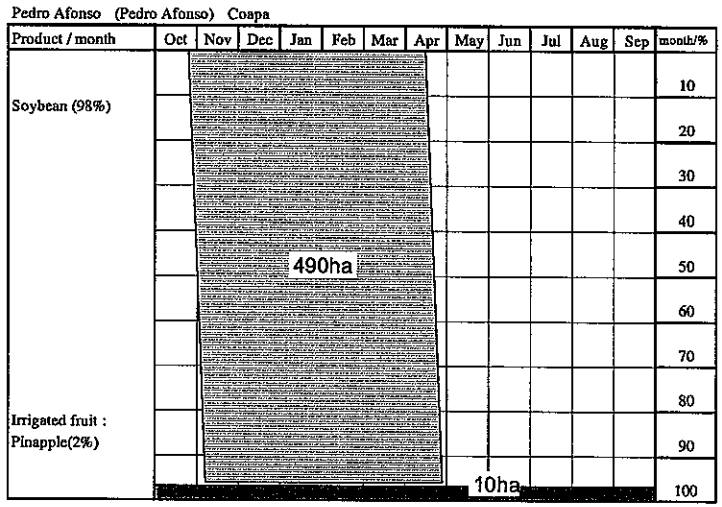


Source: Study survey data

Table .3.5.3 (3) Characteristics of the rural administration in the PRODECER III Project

PRODECER III Tocantins, Maranhão	Gerais de Balsas (MA) (Balsas) Interview in the cooperative Batavo Northeast (Average of the Project)	Pedro Afonsto (TO) (Pedro Afonso) Interview in the cooperative COAPA (Average of the Project)
Property area	1,000 ha	1,000 ha
Cultivated area	500 ha	500 ha
Main products	Soybean, maize, banana, rice	Soybean
Other cultivated products	Coffee	Experimental cultivation of pineapple
Reservation area	500 ha	500 ha
Yield	Soybean 45 – 55 bags / ha Maize 90 – 100 bags / ha Rice 50 bags / ha	Soybean 45 – 50 bags / ha
Sod seeding, crops rotation	Sod seeding intensively executed	Sod seeding executed in 80% of the cultivated area
Agricultural machinery	05 silos of 6,000 ton, 04 silos of 10,000 ton	10 silos of 6,000 ton and 01 drying machine at the cooperative, 07 tractors and 02 harvesters (settlers)
Irrigation equipment	Central pivots were installed in 26 out of the 41 plots	The installation of irrigation equipment was not yet finished.
"Green Soybean"	Financing conditions vary yearly. Selling value for Cargill and Ceval (as of Dec 2000). The whole area with soybean.	Financing conditions vary yearly. Selling value for Cargill and Ceval (as of Aug. 2001), Contract of US$ 180 / ha (fertilizers, seeds, fuel).
Debt	Debt of R$ 2,000 to R$ 3,000 thousand / family	Debt of R$ 1,700 to 1,800 thousand / family
Natural Conditions	Rainy season: October to March	Rainy season: October to March





Source: Study survey data

3.5.4 Issues of agricultural farm household management
- Indebtedness of Prodecer borrowers -

(1) Issues of indebtedness

In Chapter II, the circumstances and development of agriculture in the last few years were discussed. However, it is worthy to mention that the effects of the debt crisis in the mid 80's that struck the cooperatives can be still observed today. This crisis led to the closure and dismantling of countless production cooperatives all over the country, without respect to their size or tradition. This comment is important in order to avoid the impression that Prodecer had been the cause for such participant cooperatives difficulties. As a matter of fact, in some cases, it was just the opposite: Prodecer attempted to solve these difficulties.

The Prodecer program for the opening agricultural frontiers in the Cerrados 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.

This impossibility to repay the debt is restraining producer access to production finance from financial agents with official agricultural credit at lower interest rates. Thus, most producers in this situation, including Prodecer ones, are forced to use more expensive resources, especially that ones known as "green soybean" coming mainly from multinational grain trading companies. Nowadays production financing for producers is highly dependent on these companies.

(2) Indebtedness situation by project

. A summary and update to the indebtedness situation is presented below by project since the situations differs by project. The Study based its conclusions on the analysis of data obtained through interviews with producers and cooperatives, inquires to financing agents and data obtained at CAMPO.

[Prodecer I]

This project started during relative economic stability in the country and had favorable financing conditions. The interest rates were relatively low, similar to those in force at the time, and financial indexing allowed, after some years, subsidies to credit which permitted almost all the producers to repay their debts even before the time due.

PROJECT	INDEBTEDNESS SITUATION: PRODUCERS AND COOPERATIVES
Mundo Novo	- In this project, the Agricultural Cooperative of Cotia (CAC) was initially responsible for project implementation. After its liquidation, it was replaced by COOPERNOVO, created by the old members of CAC in the region. It carried out agricultural production support to Prodecer producers. - After the end of Prodecer I, financing for soil correction with Prodecer II resources was carried out through the Bank of Brazil,. - Since this financing amount was small, producers managed to renegotiate their debts through the Securitization plan, and thus there are no cases of impossibility to repay debt.
Irai de Minas	- There are no cases of producer indebtedness with Prodecer resources. - COPAMIL, that replaced COSUEL through consent, constructed new facilities in another location with Prodecer II resources transferred by BDMG. When expansion activities did not produce the expected results, the debts had to be renegotiated due to cooperative financial difficulties (the present value of the debt is around R$6~7 million). - COPAMIL at present maintains negotiations with the bank and with other cooperatives interested in purchasing these new facilities which are now rented out.
Coromandel	- There is no indebtedness problems with Prodecer resources. - Collective infrastructure was not implemented. Since in the beginning, there was no cooperative to support producers, they created an association, but it has been inactive for some time.
Entre Ribeiros I	- This project was implemented solely with Brazilian resources, with the participation and support of COOPERVAP, and having BDMG as the financing agent. - After project implementation, financing with Prodecer II resources was granted. - At present, these debts which total about R$25.5 million are being renegotiated with BDMG. - Apart from this, there is some indebtedness problem related to PROFIR (Program of Financing for Irrigation Equipment) financing, with the same bank.

[Prodecer II]

Prodecer II was implemented during a period of great economic turbulence in the country, with the successive introduction and alteration of economic plans, together with high interest rates. This burden (interest rates + currency change) directly struck Prodecer producers causing an increasing indebtedness.

Prodecer PILOT II

PROJECT	INDEBTEDNESS SITUATION: PRODUCERS AND COOPERATIVES
Ouro Verde	- Resources were transferred through the Bank of Brazil and the participant cooperative was the Agricultural Cooperative of Cotia (CAC). - The producers are now engaged in negotiations with the Bank of Brazil. The cooperative facilities were financed through the same Bank. One of them was sold to a multinational grain company. - The other two are, at present, being administered by COOPROESTE (Agricultural Cooperative of the Bahia West), that replaced CAC after its liquidation.
Brasil Central	- Resources were financed through the DESENBANCO (Development Bank of Bahia). - Both COACERAL and producers are not repaying their debts. However, so far the Bank has not taken legal action against the indebted borrowers.
Ana Terra	- Resources were transferred by BNCC (National Bank of Cooperative Credit) and the participant cooperative was COOPERCANA. BNCC was liquidated in 1989, and COOPERCANA a little afterwards.

	- The National Secretariat of Treasury of the Ministry of Finance assumed BNCC operations, and after some unsuccessful negotiations, all the producers were sued. This is the present situation. - The cooperative facilities are rented to a private company. A new cooperative was created but failed. Afterwards, an Association was created but only to defend the legal interests of the producers.
Piúva	- Resources were transferred through BEMAT (Bank of the Mato Grosso State) that was liquidated. - Producers debts after the liquidation were renegotiated with the liquidation agent, and the debts were reduced till the property value and a new repayment term was established at 20 years, with payment through "product equivalence" (maize). - The producers are fulfilling their obligations and some of them are thinking of advancing the payment of some installments. - With this agreement, the producer situation became normal and thus they were again able to access official agricultural credit. This is the only case, for phases II and III, in which the indebtedness situation is nearly solved. - The participant cooperative, COOPERLUCAS, continues to render some services to producers. However, its facilities were financed by the Bank of Brazil and did not get the same benefits described above. The Cooperative contracted several other loans besides Prodecer ones in order to expand its facilities. According to Bank calculations, its debts totals more than US$ 200 million thus the cooperative financial situation is considered very difficult.

[Expansion project II]

PROJECT	INDEBTEDNESS SITUATION: PRODUCERS AND COOPERATIVES
Entre Ribeiros II, III and IV. Entre Ribeiros II: Entre Ribeiros III Entre Ribeiros IV::	- This project was implemented with the support of COOPERVAP (Agricultural Cooperative of the Vale do Paracatu). Resources were transferred by BDMG in Entre Ribeiros II, by Bank of Brazil in III, and by BNCC in IV (this one transferred to STN/MF after the Bank liquidation, as with PC Ana Terra). - The COOPERVAP debts to the Banks were renegotiated and the repayment is being carried out. The producer situations are as follows: - The producers securitized part of their debts. The other part is being renegotiated with BDMG in the search for solutions. - 10 producers were sued by the Bank of Brazil through prosecution; the others expect renegotiation. - Similar to the PC Ana Terra case, all the producers were sued and their situation is being legally decided.
Guarda Mor	- Resources were transferred by the Bank of Brazil. The responsible cooperative, SULBRASIL, has already been liquidated. OESTEMINEIRO (Agricultural Cooperative of the Minas Gerais West) integrally replaced that cooperative, utilizing the facilities received from the previous cooperative. - At present, 70% of the producers are being judicially prosecuted and the others are waiting for the results of the negotiation with the Bank. - 11 producers already sold their plots at market prices, with Bank approval. The difference between the value of the sold plot and the balance due to the Bank is still a burden on the original borrower.
Bonfinópolis	- The financing agent was BDMG and the cooperative was FEMECAP (Meridional Federation of Agricultural Cooperatives). - FEMECAP is inactive at present. COANOR has replaced it and is rendering support services to producers, and is renting the other cooperative facilities.
Piratinga	- COOPERTINGA, which was created by COOPA/DF soon after the beginning of the project was responsible for the implementation of the project and for the construction of facilities with resources financed by the Bank of Brazil and BNCC. - Part of the resources owed to BNCC is being judicially disputed. The other part

	financed by the Bank of Brazil is being permanently renegotiated. - The producer debts exclusively financed by the Bank of Brazil were renegotiated last year in such a way that the producers could repay the debt according to their repayment capacity in annual installments until 2004. The remaining debt is scheduled to be repaid, in 2004, all at once. This agreement is considered impossible to be fulfilled, thus new negotiations have already started.
Buritis	- Bank of Brazil was the financing agent. COOPAGO rendered supporting services and guidance to producers but was liquidated few years after the beginning of the project. - The Bank is pushing producers to sell their plots in order to repay the debt. The cooperatives facilities were auctioned, and now belong to the multinational grain company ADM.
Paineiras	- The transfer of resources was carried out by Bank of Brazil. The present cooperative is COACER (Agricultural Cooperative of Cerrados) that replaced COCARI (Cooperative of Coffee Producers of Mandaguari). - The facilities were financed by Bank of Brazil and BNCC. COACER rented them from COCARI that has negotiated all its debts and is fulfilling the commitment with the Banks. However, there have been strong arguments between these two cooperatives. - Most of the producers are suing the Bank, questioning the method of calculation of the interest rates and demanding the withdrawing of this value from the balance due.
Cristalina	- This project was implemented almost as an expansion of the Paineiras Project. The transferring bank was Bank of Brazil, and the present indebtedness situation is similar to the Paineiras project.
Buriti Alto	- The transferring bank was Bank of Brazil, and the producers were served by the same bank branch that served the Piratinga project. - The initial cooperative was COPLAC that constructed the facilities with resources transferred by BNCC. This cooperative was replaced by COOPACEN that received both the facilities and the debts of the predecessor, and now is judicially negotiating it. - The producer situation is almost identical to the Piratinga project one. Around 30% of the initial producers sold their plots and left the project.
Alvorada	- The transferring bank was the Bank of Brazil. CAMAS (Mixed Agricultural Cooperative of Alvorada do Sul) was responsible for the project, although it is now in liquidation. - Apart from the discussions about the debt with the Bank, there is another litigation with the Mato Grosso do Sul State government about the payment of taxes concerning the facilities. - At present, the cooperatives facilities are rented to COPPER (Cooperative of Agricultural Producers of the Paraíso Region), that replaced CAMAS to render support to producers. - Among the producers, seven of them already sold their plots. As for the remaining ones, most of them are being prosecuted by the Bank.

[Prodecer PILOT III]

The 3rd phase of Prodecer had its bilateral agreement signed in 1994. The Bank of Brazil, one of the transferring banks, demanded some alterations to start the financing operations based on the experience of indebtedness of Prodecer II projects. The main one was that the Government of Tocantins State, one of the States where the project was located, had to assume 50% of the banking risks of all the financing, as surety of the operations. Despite all the cares and precautions, in 1998 indebtedness problems unfortunately started to arise, similar to those occurring in previous projects.

PROJECT	INDEBTEDNESS SITUATION: PRODUCERS AND COOPERATIVES
Gerais de Balsas	- The transferring bank is the Bank of Northeast. The responsible cooperative is the Cooperative Batavo Northeast that is negotiating the debts with the Bank concerned with the cooperatives facilities. - At present, 14 out of 40 Prodecer producers are suing the bank, while the others are renegotiating with the bank in a friendly manner.
Pedro Afonso	- The transferring bank is the Bank of Brazil. COOPERSAN started the project implementation but is now being liquidated. - The facilities constructed with resources transferred from the Bank of Brazil were expropriated by the State Government. COAPA (Agricultural Cooperative of Pedro Afonso), created by the producers to replace COOPERSAN, is now administering these facilities. - At present, the total debt is R$72 million, an average of R$1.5 million per producer. Some of the producers are judicially questioning the Bank about their debts. Most of them are renegotiating them.

(3) Efforts of the Brazilian government to solve the rural indebtedness problem

The indebtedness problem of Prodecer producers and cooperatives, as well as of most of the country's farmers, was greatly influenced by coincidence with a period of high interest rate policy which occurred at the end of 80's as already described in Chapter 2 of this Study. This unbalance between the debt growth and the agricultural revenue has influenced all the country's farmers, and most seriously those who contracted debts within the financing system, such being the case of Prodecer.

In the attempt to reduce these difficulties and help producers and cooperatives, the Brazilian Government designed and released several measures, described below, and is still now trying to find solutions to the agricultural indebtedness problem.

[SECURITIZATION]

In the search of a solution for the agricultural indebtedness problem, the Brazilian Government released, in 1995, Law No. 9138. This measure was known as "securitization" and had the objective of renegotiating debts below R$200,000.

In 1997, a new measure known as "PESA" was released, for debts over R$200,000. In 1998, Resolution No. 2471 of the Central Bank of Brazil was released. The Government of Brazil, aiming at solving the cooperatives indebtedness problems, approved a plan called RECOOP (Program of Cooperatives Recuperation).

These measures released by the Brazilian government with the aim of solving agricultural sector indebtedness problems are discussed in detail in Chapter 6.