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STAFF APPRAISAL REPORT

BRAZIL

NATIONAL LAND ADMINISTRATION PROGRAM

NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT

May 31, 1985

**Projects Department
Latin America and the Caribbean Regional Office**

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CURRENCY EQUIVALENTS

US\$1 = Cr\$ 2,562 (Oct. 31, 1984)
Cr\$1 = US\$0.00039 (Oct. 31, 1984)

ACRONYMS

CE	Comissao Especial (OET) (Land Regularization Commission of OET)
DC	Diretoria de Cadastro e Tributacao (INCRA) (Directorate of Cadastre and Taxation of INCRA)
DF	Diretoria Fundiaria (INCRA) (Directorate of Land of INCRA)
DI	Diretoria de Integracao com Estados e Territorios (INCRA) (Directorate of Integration with States and Territories of INCRA)
EMFA	Estado Maior das Forcas Armadas (Joint Staff of the Armed Forces)
INCRA	Instituto Nacional de Colonizacao e Reforma Agraria (National Institute for Colonization and Agrarian Reform)
MIRAD	Ministerio da Reforma e Desenvolvimento Agrario (Ministry of Agrarian Reform and Development)
OET	Organo Estadual de Terras (State Land Institute)
PAPP	Programa de Apoio ao Pequeno Produtor (Support Program for Small Rural Producers of the Northeast Region Rural Development Program)
PDSFN	Programa de Desenvolvimento do Sistema Fundiario Nacional (National Land Administration Development Program)
PF	Projeto Fundiario (OET) (Land Adjudication Team of OET)
SUDENE	Superintendencia de Desenvolvimento do Nordeste (Superintendency for the Development of the Northeast)
TDA	Titulos da Divida Agraria (Agrarian Debt Bonds)
UTPNE	Unidade Tecnica do Projeto Nordeste (State Coordinating Units of the Northeast Program)

WEIGHTS AND MEASURES

The metric system is used throughout the report

FISCAL YEARS

Government of Brazil	=	January 1 to December 31
Northeast Rural Development Program	=	April 1 to March 31
Project	=	April 1 to March 31

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This report is based on the findings of an appraisal mission to Brazil in November 1984. Mission members included Maurice Asseo (Bank), Daniel Cremonet and Andre Sousbie (consultants). Alain Tobelem, Rene Ruivivar and Felipe Saez have contributed to the appraisal of the project.

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Map # IBRD 18685
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BRAZIL

NATIONAL LAND ADMINISTRATION PROGRAM

NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT

Loan and Project Summary

Borrower : Federative Republic of Brazil.

Amount : US\$100.0 million equivalent.

Terms : Repayable in 15 years on a fixed amortization schedule, including 3 years of grace, at the Bank's standard variable interest rate.

Project Description: The proposed project would aim to extend the benefits of secure land ownership to up to 700,000 small farmers in the Northeast, many of whom would also benefit from complementary development activities under the Bank-supported Northeast Rural Development program, and to improve the government's ability to formulate land policies and administer land resources. The project would achieve the first objective by (a) identifying and delimiting all private and public properties within an area of some 31 million ha of rural land in the Northeast region over a period of about three and a half years; (b) regularizing the tenure of all rightful occupants; (c) selecting, planning the use of and initially administering lands to be acquired by the government for redistribution to some 130,000 presently landless farmers or farmers whose excessively small properties need to be reallocated; and (d) confirming the titles of all legitimate landowners and providing titles to beneficiaries of land regularization, reallocation or redistribution operations. This is expected to remove a major obstacle to the access to official credit for at least 200,000 small farmers, increase production and employment on up to 1 million ha of presently under-utilized or idle lands and help resolve latent and open land conflicts. The second objective would be achieved by (a) establishing cadastral data banks in each of the nine Northeast states and the State of Minas Gerais for the legal, fiscal and economic administration of private and public lands; (b) strengthening land institutions in staff and equipment; and (c) carrying out various legal, institutional and socioeconomic studies.

Risks : The proposed project would strengthen the government's capacity to implement the agrarian reforms aimed at by

Brazilian legislation. As such, it would have political implications at various levels of Brazilian society. At the federal and state administration level, the project enjoys overall political support. At the level of small farmers, there is a small risk of adverse political reactions if their expectations were not met. The project could suffer from delays in institutional development, legal obstructions from unsatisfied claimants to land ownership or a lower-than-expected efficiency of staff or equipment. Therefore, the project puts heavy emphasis on technical assistance, staff training and studies of possible legislative and administrative improvements. The timely implementation of aerial photography, on which subsequent project activities depend, could be affected by unfavorable weather conditions. However, beyond the first, tightly scheduled year, aerial photography operations have been planned so as to make photographic outputs available up to one year in advance of subsequent project activities. The immediate, self-contained objectives of the project justify the proposed investment. Fuller benefits would be derived, however, through the implementation of complementary development activities such as those envisaged under the Northeast Rural Development program.

<u>Estimated Costs</u> :	<u>US\$ Million</u>		
	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
<u>Aerial Photogrammetry</u>			
Aerial photography	2.5	7.6	10.1
Ground control and mapping	23.5	43.8	67.3
<u>Land Tenure Identification</u>	50.4	8.9	59.3
<u>Cadastre Implementation & Titling</u>	9.3	3.1	12.4
<u>Support for Land Restructuring</u>	15.5	3.8	19.3
<u>Institutional Strengthening</u>			
Buildings	3.4	1.4	4.8
Data processing equipment	2.4	3.3	5.7
Other equipment and furniture	6.4	5.2	11.6
Staff training and tech. assist.	3.1	1.1	4.2
<u>Project Administration</u>	8.7	-	8.7
<u>Studies</u>	1.3	.1	1.4
<u>Total Baseline Costs</u>	126.5	78.3	204.8
Physical contingencies	15.2	9.4	24.6
Price contingencies	13.0	8.1	21.1
<u>Total Project Cost</u>	154.7	95.8	250.5 ^{1/}

<u>Financing Plan</u> :	<u>US\$ Million</u>		
	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
Federal Government ^{2/}	119.6	20.9	140.5
State Governments	10.0	-	10.0
IBRD	25.1	74.9	100.0
	154.7	95.8	250.5

<u>Estimated Disbursements:</u>	<u>US\$ Million</u>			
<u>Bank FY</u>	<u>86</u>	<u>87</u>	<u>88</u>	<u>89</u>
Annual	33.0	35.0	28.0	4.0
Cumulative	33.0	68.0	96.0	100.0

Rate of Return: n.a.

^{1/} Including about US\$7.5 million of taxes.

^{2/} Including an expected IDB loan to finance foreign exchange costs and part of local costs.

BRAZIL

NATIONAL LAND ADMINISTRATION PROGRAM

NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT

I. INTRODUCTION

1.01 Brazil suffers from skewed land ownership and lacks a reliable cadastral system through which to improve its knowledge of the existing situation and act on it. Recent changes, such as the creation of a Ministry of Agrarian Reform and Development (MIRAD) and the recognition by government authorities of the importance of adequate land tenure structures for successful rural development, especially in the Northeast, are considered to be right steps towards a better land administration system. Building institutions, both at the federal and state levels, compatible with the growing objectives of the government in improving land tenure and use is, therefore, of immediate importance.

1.02 The proposed project would contribute to those objectives through an initial program of about three and a half years to (a) adjudicate, i.e., ascertain, all rights to land on some 31 million ha in priority areas of the Northeast region using modern and uniform aerial photogrammetry and land survey methods and a multi-purpose data bank, leading to the possible reallocation and redistribution of about 10% of that area; (b) strengthen the state land institutions of the region and help INCRA develop a new function of providing technical assistance and standards to those institutions; and (c) study various institutional, legal and socioeconomic factors affecting the long-term impact of land administration. The total cost of the project would be about US\$250.5 million, excluding land acquisition costs. Later phases of the land tenure administration program are expected to extend this project's activities to other areas in the Northeast and other regions of Brazil.

1.03 The project would be administered by the National Institute for Colonization and Agrarian Reform (INCRA) and implemented at field level by the Northeast State Land Institutes (OET). Aerial photogrammetry operations would be contracted to private firms. The Inter-American Development Bank (IDB) is processing a loan to finance project activities in three of the ten states included in the project area.

1.04 Adjudication is an essential prerequisite of land registration, land restructuring and disposition of state lands. The project is expected to confirm the titles of up to 300,000 landowners and provide titles to another 700,000 rightful occupants of land in the areas adjudicated. It would eliminate a major barrier to the access to official credit for at least 200,000 small farmers, increase those farmers' production, reduce land conflicts and migration towards already congested urban centers and establish the basis for efficient land administration and taxation. The project would break new ground in Bank lending operations. It would be only the second or possibly the third Bank project, worldwide, to finance improvements in land tenure administration on a large scale, by far the largest and the first to do it in close linkage with a rural development program of equivalent scale.

II. LAND TENURE CONDITIONS AND POLICIES

A. Present Land Situation

2.01 Agriculture employs 30% of Brazil's labor force and contributes 38% to export earnings and 11% to GDP. Past agricultural growth has been impressive, averaging 4.7% per annum during 1970-82 or almost twice the rate of population increase; this is considered well below the country's potential given its rapidly evolving technology and abundant land resources. Brazil's ratio of farmland to population is among the highest in the world although only 43% of Brazil's territory (i.e., about 370 million ha) is classified as land in farms. The remainder is mostly large, unexploited and often unexplored areas in the Amazon Basin and Center West. Furthermore, only 14% of the land in farms is cultivated under perennial or annual crops.

2.02 Farmland is currently held under various forms of occupancy, reflecting the different ways through which it has historically been acquired by private individuals. Data on the extent of these various forms of occupancy are not available. However, it is widely accepted that a large amount of untitled land has been taken over by private individuals, many of whom have, by virtue of tenure, acquired possessory rights under existing laws. Much land is also held with insufficient documentary evidence, with inaccurate definitions of boundaries and without maps.

2.03 The extent of landlessness among Brazil's small farmers and (when they have access to land) the uneconomic size of their farms are of serious concern. Based on agricultural census data for the country as a whole, in 1980 only 64% of farmers owned any land, while 17% were squatters. Farms of under 10 ha (50% of the total) had an average size of 3.5 ha (down from 4.0 ha in 1960), which is hardly enough to sustain a livelihood on most soils. In the Northeast region, the geographic focus of this project, only some 30% of farmer families own land. Nearly half of the agricultural labor force is comprised of temporary workers. The average size of farms of under 10 ha (68% of the total) has fallen to 2.7 ha, significantly below the national average.

2.04 The already highly skewed distribution of farm land ownership has worsened over the past two decades. In 1980, 1% of the landowners in Brazil controlled 47% of the land, while the lower 50% controlled only 2% of the land. In the Northeast, the 220 largest farms (each with more than 10,000 ha) control more land than the 1.7 million farms with less than 10 ha each. Distribution is also considerably skewed in frontier agricultural areas on the fringes or south of the Amazon region, where the land tenure situation is fraught with problems arising from multiple titlings of a same plot, occupation by impoverished migrants, fraudulent title sales and explosive social tensions. Land related tensions are also widely reported in the more developed southern states, especially in the State of Sao Paulo. Everywhere in Brazil, most farmers without land are deprived of access to agricultural investment credit and receive little help from extension agents. They are often prohibited from farming the same land more than one or two years in a row, for fear that this could lead to claims of ownership of that land. This results in substantial waste of manpower and of production opportunities.

2.05 Apart from the obvious implications for income distribution, the concentration of land ownership has important implications for both output and employment. Statistical evidence indicates a sharp decline in the intensity of land and labor use as farm size increases. Land quality has no effect on this relationship. The explanations which have been advanced for the low utilization of land in farms include the increased use of land by large landowners for its non-production benefits (e.g., as an inflation hedge, speculative asset, or a basis for obtaining subsidized credit) and the need by small farmers to cultivate most of their land just to obtain subsistence income.

B. Legislative Background

2.06 Under Brazil's federative system, the federal government's area of direct jurisdiction is limited to a 150-km-wide strip along the land borders of Brazil, a 100-km-wide strip on each side of the federal highways built or planned in the Amazon region, federal territories and areas which have been expropriated for social purposes. The remaining rural areas are under the direct jurisdiction of the states, which administer them in accordance with federal as well as their own respective laws. The federal government is responsible for agrarian legislation, as well as for expropriation in the social interest. State land laws have to conform with corresponding federal legislation.

2.07 Brazilian agrarian law, as written, is complex but is considered an adequate basis for dealing with current land administration and tenure issues. Actions taken by the government to separate untitled land from private land and other matters pertaining to land adjudication are currently governed by Law No. 4504 of 1964, Law No. 6015 of 1973 and Law No. 6383 of 1976. The concept of property ownership as having a social role is embodied in Brazilian legislation, starting with the Federal Constitution of 1946, which also authorizes expropriation of land in the social interest. Building on this principle, the "Estatuto de Terra" (Law No. 4504), which is considered the centerpiece of Brazilian agrarian legislation, was enacted on November 30, 1964. Its objective is to promote agriculture and agrarian reform through the elimination of unproductive large estates and uneconomic small farms; however, it has achieved little after twenty years.

2.08 Application of existing laws is hampered by a variety of factors, including the limited number and insufficient training of judges and state attorneys, the lack of knowledge of small farmers about their legal rights and their limited access to legal resources. Based on its recent land titling experience in the Northeast, INCRA claims that most titles studied show registration errors which void them of legal value. Measures are being taken at the federal level to compile and disseminate agrarian legislation. The effective application of existing tenancy laws would give clear ownership security to the landowners and long-term tenure security to their tenants, which would be fundamental in achieving higher agricultural production on suitable soils (para. 4.25).

C. Cadastral and Fiscal Background

2.09 The land taxation system in Brazil distinguishes between farms according to their size and the efficiency of their use. This classification was intended to penalize owners holding large tracts of underutilized land. The resulting complex tax estimates are, however, established exclusively on the basis of declarations provided by the supposed owners themselves to INCRA. INCRA rarely uses its right to check such declarations and is ill-equipped to do so. Data provided by the owners for tax purposes are stored by INCRA in a central cadastre. They include transient information, such as areas planted to seasonal crops and yields obtained, along with more traditional cadastral information, such as the area and location of the property, without, however, proper geodetic references or a precise delimitation of boundaries. Value declarations are based on a compromise between the owner's desire to maximize his creditworthiness and minimize his taxes. Annual updating of the cadastre is not compulsory for plots below 500 ha. Recent surveys have demonstrated that the sum of the areas declared to be privately owned in a given municipality often exceed the municipality's total area by as much as 30%. The number of families working on those lands is, conversely, always substantially underestimated.

2.10 Agricultural credit subsidies and a variety of tax incentives have tended to increase the speculative value of land. While tax incentives which resulted in extensive forest clearings in the Amazon region have been considerably reduced, a number of other tax incentives remain and would require a closer look by Brazilian policy makers. The gradual elimination of agricultural credit subsidies and the overall scarcity of credit in the country are expected to encourage many owners to sell their underutilized land. A dynamic land market would, however, require the establishment of land purchase credit, through long-term mortgages, which may prove difficult in the present tight financial situation.

D. Land Policies and Programs

2.11 The government is emphasizing the development of the agricultural sector in view of its important contributions to the country's economic recovery and to employment. In the past, agricultural growth was achieved mainly through an expansion of crop production into new areas, supported by a heavily subsidized program of frontier development, and the expansion of capital-intensive agriculture principally in the more developed south. However, the government is now giving more attention to increasing the utilization and productivity of existing farmlands, in part through improved land titling and administration. Furthermore, most Northeast state governments appear today to perceive some improvement of land tenure conditions as an important political and economic objective. This is a marked change from the situation prevailing a few years ago and reflects the overall trend of the country towards industrialization and political structures which tend to reduce the influence of large landowners. The Brazilian Church is also taking an increasingly active role in defense of small and landless farmers and is calling for substantial improvements in the land tenure situation.

2.12 Government efforts to improve land tenure conditions have intensified in the last two years or so. On August 16, 1982, the government instituted a National Land Policy Program to unify the implementation of all land adjudication and regularization projects, initiate new projects to meet the government's targets for land adjudication and regularization and ensure the effective application of the "Estatuto de Terra." Within the framework of the land program, a National Land Administration Development Program (PDSFN) has been formulated. The objectives of the PDSFN are to (a) strengthen the federal and state land institutions; (b) clarify the existing land situation; (c) improve the understanding of federal and state governments about conditions of ownership and use of land under state jurisdiction; (d) propose legal and administrative measures to improve conditions of landownership and use; and (e) improve access to land for small farmers. The PDSFN has a 15-year planning horizon, the initial phase of which would be supported by the project. Geographically, this initial phase will be concentrated on the Northeast region where it will be complemented by other development activities under the Northeast Rural Development Program (para. 4.03).

2.13 Improving the land tenure conditions in a country as large as Brazil, where the land tenure situation is particularly complex and ill-known, will require a long and sustained effort. Surveying, delimiting and titling a substantial portion of the national territory would, alone, require anywhere between 15 and 20 years within a program which would have to be national in scope, deal simultaneously with the various institutions and components of the system and be implemented in continuous geographical and time slices, which could be grouped into separate projects.

E. Prior Bank and IDB Assistance for Land Activities

2.14 Until recently, Bank experience in land tenure operations in Brazil was limited mainly to relatively small land titling and redistribution components in a few rural development projects, which have generally been subject to considerable funding, legal and institutional delays. However, experience in the Piaui Rural Development Project (Loan 2015-BR), which has a major land component, points to a substantial potential for improvements in the adjudication and redistribution of public and private lands. Bank experience in Paraguacu, Bahia (Loan 1589-BR), has also shown that the survey and regularization of existing ownership rights is necessary for land acquisition in certain areas, especially those with social tension. Recent rural development projects in Maranhao, Paraiba and Bahia have relatively large land components, which rely on modern photogrammetric techniques.

2.15 Experience in larger-scale land surveying and titling has been generated by an IDB-financed project which has been operating since 1982 in five states of the Northeast under INCRA coordination. The project has helped accelerate considerably land adjudication and titling operations in the Northeast. Cooperation with land owners in the delimitation of their properties is said to have been smooth, the main difficulties reported being usually with small landowners who no longer reside in the project area. The project would have thus failed to reach claimants to only 5% of the surveyed area. The project utilizes aerial photography and cartographic restitution in Paraiba, Bahia and Pernambuco and traditional topography in Sergipe and Alagoas. It does not provide for the establishment of data banks, which would allow the preservation and future updating of cadastral information.

The project provides for the purchase of some 82,000 ha of land to benefit some 5,000 families. To date, only some 10,000 ha have been actually acquired.

2.16 Overall, past IDB and Bank assistance for land activities has effectively helped in developing the land policies of the states concerned and achieving various institutional improvements. Furthermore, the Bank-financed projects have introduced modern, cost efficient land survey technologies similar to the ones proposed in this project. In August 1984, INCRA organized, with Bank and IDB assistance, an International Symposium on Land Administration to help disseminate among Brazilian land institutions the modern cadastral techniques to be used in the project. INCRA has also organized a number of seminars in various Northeast states for the same purpose.

III. LAND INSTITUTIONS

A. Federal Land Institutions

The National Institute for Colonization and Agrarian Reform

3.01 The National Institute for Colonization and Agrarian Reform (INCRA) was established in 1970 to implement the proposed agrarian reform and promote settlement projects. It has recently been reorganized as a semi-independent agency under MIRAD and is the lead agency within the National Land System (SFN). The new INCRA comprises a Planning and Coordination Secretariat and the Directorates of Land, Cadastre and Taxation, Colonization, Integration with States and Territories (DI) and Administration. The Directorate of Land (DF) carries out all land survey and titling operations in areas under federal (rather than state) jurisdiction, using mostly traditional topographical technology. It is also responsible for all land expropriations in the country and for land purchases financed with federal funds. The land redistribution program, PROTERRA-FUNTERRA, established in 1971/72 to reduce land distribution inequalities through purchases and expropriation, has not proven capable of meeting its objectives. It has now been abolished as an independent program, and its objectives and budget have been integrated within a new Land Acquisition Department of the DF. The Directorate of Cadastre and Taxation (DC) is the depository of all statistical information collected by INCRA and is responsible for the determination of land taxes. The Directorate of Colonization plans, implements and assists all federal settlement projects, including the Bank-financed settlements in Rondonia. The DI is described in the following paragraph. INCRA is represented at the state level through its regional directorates, which, in the past, have dealt mainly with tax data collection, cooperativism and settlement and also assumed the land administration responsibilities of some states. Most of the 9,000 employees of the institution are located in those regional directorates. The strengthening of OETs to be achieved through the project will require that the functions and staffing of the regional INCRA offices be reviewed. The possibility of transferring to the OETs some of the regional staff of INCRA would be considered within the proposed OET management study (para. 4.23).

3.02 The Directorate of Integration with States and Territories (DI) has been restructured to provide normative support and technical assistance

to state land institutions. This is a function that the National Land Administration Program requires from a federal institution and that its predecessor department had started to develop through the IDB-financed project. The DI comprises (a) two departments of policies and programs, which would consolidate, monitor and evaluate the state land administration programs and related activities implemented by the various INCRA directorates; and (b) a department providing technical and management support to the state institutes, within the policies and objectives defined by the DI. Proposals for further improvements in the internal structures of the DI are discussed in Annex 2. These structures would be reviewed once the proposed institutional study of the OETs and INCRA is completed (para. 4.23). The DI has transferred cooperativism and rural electrification activities, which represented a large part of its previous operations, to the Ministry of Agriculture, along with many of the staff which were employed in those activities. Most of the remaining staff have worked on the IDB-financed project. A few others have participated in the preparation of the proposed project and would become the nucleus of the Departments of Policies and Programs once staffing arrangements for the Directorate have been finalized.

3.03 With the new emphasis on land tenure, and through some simplifications of the land titling process, INCRA has conducted land adjudication operations at an average rate of some 17 million ha per year during the last five years, distributed about 250,000 titles nationwide in 1982, compared to some 100,000 in 1980 and 1981 and an average of about 25,000 titles per year before that. These figures include some 130,000 titles generated by the IDB-financed project. Such a massive increase in title delivery may have been achieved in some cases at the expense of the quality of supporting analysis and some leniency in the recognition of doubtful private titles. However, the increasing acceptance of the very principle of systematic land data collection and storage is a step forward in Brazil's land administration and should gradually provide formal evidence of the need for land redistribution.

Other Federal Institutions Involved in Land Surveying Activities

3.04 The Cartographic Commission of the Federal Planning Secretariat was established in 1967 to develop national mapping norms, with the technical support of an Executive Secretariat, and keep a public register of all cartographic documents produced in the country. A special advisor to the Minister of Land Affairs is also empowered to develop cartographic and cadastral norms. Aerophotogrammetric operations are closely controlled by the Joint Staff of the Armed Forces (EMFA).

B. State Land Institutions

3.05 All Northeast states, where the proposed project would concentrate its efforts, already have state land institutions. However, as outlined below, these institutions have considerably different features, in terms of statute (some are semi-independent organizations with varying degrees of autonomy, others are sub-divisions of a state secretariat), size and experience. Piaui has a separate group within its land institution (INTERPI) dealing with the Bank-financed Parnaiba Valley project. The Bahia Land Institute (INTERBA) is particularly overstaffed, but measures are being taken to transfer excess staff to other functions. It has up to now had little

involvement in IDB- and Bank-financed land titling operations. The State of Maranhao has not yet provided to its land institute (INTERMA) the equipment and qualified staff it needs, notwithstanding the large land components of ongoing rural development projects. Sergipe has recently created a land institute (FUNDASE); its staff would need to be trained to modern methods. Alagoas (CORAL), Pernambuco (Land Directorate of CISAGRO) and Rio Grande do Norte (ITERN) are just starting to staff their institutes. Minas Gerais has a well structured rural development institution (RURALMINAS) which also deals with land matters. The Ceara land institute (ITERCE) has taken the lead in social issues relating to land tenure, but its internal structures should be revised to assume direct field responsibilities. In Piaui and Paraiba (FUNDAP), young and committed staff use, with the help of private land survey firms, remote-sensing, computerized data storage, microfilms of land registers and, in the case of the Bank-financed projects, ortho-photography techniques. In most places, however, the states use outdated and expensive topographical technology and have inadequate knowledge of which lands actually belong to them or what the real tax value of private lands would be. Their staff would require on-the-job training, along with the training of trainers in INCRA. Because of the precarious financial situation of all the states concerned, institutional strengthening and related investments would rely mainly on federal funds to be channelled through the project.

3.06 All OETs are to be developed according to a basic model (Annex 1, Attachments C1, C2 and D) which would be adapted to each state, considering its size, density of occupation, vegetal cover and existing land institutions. The basic model of state land institutes comprises a central unit which would be staffed and equipped to provide general coordination, documentation, data processing, mapping and planning of land acquisition and redistribution; and a gradually increasing number of regional units, each in charge of the maintenance of cadastral data in a number of municipalities where initial land surveys have been completed. The regional units would evolve from mobile land adjudication teams (PF) consisting of an agronomist, a lawyer, a topographer/photo interpreter, administrative agents and two to five field topography teams of two or three members each, equipped with transport and topographical equipment. Each PF would have legal support from a special land regularization commission (CE) comprising a lawyer and an agronomist trained in surveying techniques.

3.07 State rural development councils being established for the local planning of the Northeast Rural Development Program (para. 4.03) would comprise a land sub-committee which would advise the governor on land policies and review all land acquisition proposals. Northeast Program operations would be administered by a state coordinating unit established in each state (UTPNE).

C. Other Institutions Involved in Land Tenure Improvement

Land Registries

3.08 Land registries, or cartorios, are offices linked to the judiciary power of the state. They are empowered to maintain, for a fee, an official land register. Their performance has been poor. The cartorios suffer from unqualified staff, improper documentation and practices, outdated registration techniques and lack of government control. Law 6015 of

December 13, 1973, requires that the land registry refer to the cadastral record of a property wherever a government cadastre exists. In the absence of such cadastres, the law, which is of utmost importance to their proper maintenance, has not yet been put to the test.

Superintendency for the Development of the Northeast

3.09 Land regularization in the Northeast region would be linked with the rural development activities reaching the same beneficiaries through the Support Program for Small Rural Producers (PAPP) of the Northeast Rural Development Program (para. 4.03). The Superintendency for the Development of the Northeast (SUDENE), the regional coordinator of the program, is intended to occupy a pivotal position between federal and state authorities in the programming, budgeting, supervision and evaluation of the Northeast Program. A Deputy Superintendency for Rural Development has been established within SUDENE, with a Regional Land Coordination Unit (CFR) planned to be more specifically responsible for linkages between rural development and land activities.

Farmer Unions

3.10 Small-farmer unions grouped under the Agricultural Workers Federations (FETAG) should be trained to provide legal assistance in land matters to their members. The FETAGs have been promoted by the government as a means to support the rural social security scheme; however, they are ill-equipped to provide a wider range of services to their members. They should be distinguished from the National Agricultural Confederation (CNA), which is dominated by the larger landowners.

IV. THE PROJECT

A. Project Origin

4.01 In March 1983, INCRA formally requested assistance from the Bank to prepare and finance a land tenure improvement project with first emphasis on the Northeast region. A similar request was later forwarded by INCRA to IDB. Project appraisal was initiated by the Bank in June 1984 and was completed in November 1984. The Interministerial Commission set up to supervise the Northeast Development Program, the Minister of Land and the Minister of Planning have confirmed the government's interest in the proposed project.

B. Project Area

4.02 The project would be carried out in the nine States of Alagoas, Bahia, Ceara, Maranhao, Paraiba, Pernambuco, Piaui, Rio Grande do Norte and Sergipe in the Northeast of Brazil, plus the northern part of Minas Gerais. The Northeast region has a total area of about 1.5 million km² (18% of Brazil's area) and some 35 million inhabitants (about 29% of the country's population). Its various states are of substantially different size: the State of Bahia covers about one third of the region and is some 25 times larger than the State of Alagoas. The climate of the region varies from humid tropical in most of Maranhao to more than semi-arid in the interior of Bahia, Ceara and Piaui, with different and usually short periods suitable for aerial photography (Chart 1). Variable topography, vegetal cover and

population densities affect the choice of land survey techniques and scales. Land ownership distribution is particularly skewed in the Northeast (paras. 2.02 and 2.03). Most states have about half their population or less living in rural areas, with one farm per about five to six persons, except for Maranhao, which has a much higher proportion of rural population. More than five million migrants have left the Northeast during the last 20 to 25 years.

4.03 An important feature of the project area is the proposed 15-year Northeast Regional Development Program, intended to integrate a variety of existing programs into sectoral projects in health, education, federal irrigation and, through the PAPP, assistance to small farmers. The PAPP would be implemented through state-specific projects in priority areas identified by the state authorities and would comprise (a) water resources development, including small-scale irrigation schemes, inland fish production and community water supply; (b) agricultural research and extension; (c) agricultural credit; (d) marketing services; and (e) support to small rural communities, including the financing of some small infrastructure. Land tenure improvements to be achieved by the proposed project and rural development activities of the PAPP would enhance each other's benefits.

4.04 The proposed land tenure project would cover about one-fifth of the Northeast region within about three and a half years. This is in keeping with technical conclusions that land adjudication would need to be completed within a period varying between 10 years in the smaller states to 15 years in the larger ones to avoid abrupt changes in staffing requirements and to complete the land cadastre within a reasonable time. The need to develop the institutions of each state and the geographical spread of the Northeast rural development projects which the land project would support are factors which have contributed to the decision to distribute project activities among all the states of the region. The specific areas to be attended by the project are shown in Maps # IBRD 18685 and # IBRD 18686 along with the areas covered by land tenure improvement components of ongoing IDB and Bank projects. These areas have climatic and geographic features as varied as those of the overall Northeast region, except for a higher than average population density (with average lots of less than 30 ha per occupant according to INCRA/IDB experience), reflecting Northeast program objectives of attending smaller-farmer areas.

C. Project Objectives and Strategy

Objectives

4.05 In keeping with the objectives of the National Land Administration Program, the proposed project would aim to extend the benefits of secure land ownership to a larger number of small farmers and improve the government's ability to administer land resources and formulate land sector policies. A large-scale land project, such as the one proposed, would better focus political and financial support for such improvements than small land components built into separate rural development projects. Given the requirements of the Northeast region and of the rural development projects to be implemented in that region, the project would achieve the first objective of land tenure improvement by (a) adjudicating some 31 million ha of rural land in the Northeast region in areas outside those already attended by ongoing projects, within a period of about three and a half years, to identify and delimit all private and public properties; (b) regularizing the

tenure of all rightful occupants; (c) redistributing lands belonging to or acquired by the government to a number of presently landless farmers or farmers whose excessively small properties need to be reallocated; and (d) confirming the titles of all legitimate land owners and providing titles to beneficiaries of land regularization, reallocation or redistribution operations. This is expected to lift a major obstacle to the access to official credit for at least 200,000 small farmers, increase production and employment on up to 1 million ha of presently underutilized or idle lands and help resolve latent and open land conflicts. The second objective, of improving government institutions, would be achieved by establishing cadastral data banks in each Northeast state for the legal, fiscal and economic administration of private and public lands; strengthening land institutions in staff and equipment; and implementing a variety of legal, institutional and socioeconomic studies. The feasibility of achieving project objectives within the proposed time frame is discussed in paras. 5.12 and 5.13.

4.06 The project would aim at giving first priority to areas selected for assistance through the Northeast Rural Development Program, while recognizing the need, especially during the first years, for land tenure activities to be (a) initiated prior to the implementation of specific rural development plans in some of the program areas; (b) geographically more concentrated than other rural development activities; and (c) responsive to other land tenure requirements of the states, within the same institutional and technological framework.

Strategy

4.07 The project would seek to establish a strong land administration with unified policies, legislation and procedures. To this purpose, the project would (a) define the respective functions of INCRA and the OETs; (b) help INCRA adjust from its past executive activities to its new normative functions; (c) develop standards which would ensure the integration of project activities within the national context of land administration; (d) introduce sound, cost-effective management and periodic programming in all agencies of the SFN; (e) contribute to reinforcing inter-agency collaboration through a combination of contractual and informal linkages; (f) expand the use of modern technologies compatible with the volume of land activities in a country the size of Brazil; (g) help the OETs and INCRA adjust their structures and staffing to the new methods and objectives, with particular attention, where required, to a programmed reallocation of excessive staff; and (h) finance intensive staff training and a number of studies, which would identify means to overcome key institutional and legal obstacles to efficient land administration; improve the knowledge of the socioeconomic background of land activities; and help formulate future land projects. Within the same principle of unity, the project would allow for the incorporation of ongoing Bank- and IDB-financed land operations into OET activities. In the past, IDB operations have relied on different survey technologies and land acquisition methods, and have not imposed institutional training or a data updating system. Steps have been taken under recent calls for tenders under the IDB-financed project to harmonize its procedures with those proposed under this project.

4.08 The adjudication process would be systematically applied to all parcels within a group of neighboring municipalities to ensure maximum publicity, make the best use of the knowledge of local inhabitants and minimize unit costs. A review of all deeds recorded in the land registries would be followed by on-the-ground adjudication supported by aerial photogrammetry. The participation of right-holders would be compulsory. No fees would be imposed on them. However, the monumentation of parcel vertices, which is not compulsory, would be carried out by the owners (or tenants) who wish to do so at their own cost. Disputes arising from adjudication would initially be determined by the administration officials. All information generated by the adjudication process would be entered into a cadastral data bank system which would provide the government with a comprehensive and permanent land administration tool with multiple legal, financial and development functions. It would ensure the publicity of land ownership and transactions that provides the legal basis of the titles produced.

Support for Land Redistribution Objectives of the Northeast Program

4.09 In order to avoid strong political reactions (especially from the largest landowners) to the proposed land tenure improvement process, INCRA originally recommended that emphasis in the early phases of operation be concentrated on land titling, which has had the support of all landowners in previous IDB- or Bank-financed projects and is the main objective of the proposed project. However, SUDENE, in the preparation of the Northeast program, has established relatively ambitious targets for the expropriation and redistribution of underutilized private properties. Expropriated land-owners would be compensated at little immediate cost to the government through Agrarian Debt Bonds (TDA), which carry full monetary correction plus interest. State authorities have favored land purchases, which have a lower political cost than expropriations and which the state would negotiate using funds from federal programs, such as the State Land Funds. The federal government prefers that land be acquired through "negotiated expropriations," which, like summary expropriations, would allow payment in TDA rather than cash but would avoid lengthy judicial confrontations on the actual value of the land. Brazilian law requires that all expropriations for redistribution purposes be implemented by INCRA. Agreement has been reached between INCRA, SUDENE and each Northeast state on the funding procedures and preferred methods of land acquisition. The target would be to have about 70% of the acquisitions in each state achieved through expropriation, the remainder being purchased. Assurances were received from the Borrower that it would cause each of the states in the project area to take all actions necessary to acquire land in a timely manner to meet the land redistribution targets defined in the operational agreements signed between INCRA, SUDENE and those states.

4.10 The ten project states plan to redistribute to landless farmers some 3 million ha acquired by the states or INCRA through purchase or expropriation (Annex I, Attachment H), within the conditions established in the "Estatuto da Terra." This is not a direct component of the project but would be supported by it through the establishment of special land restructuration units at each OET headquarters, staffed to (a) assess the capability and potential use of lands proposed to be acquired and redistributed; (b) select potential beneficiaries; and (c) plan and supervise

the redistribution of the land once it has been acquired. Furthermore, the preliminary identification of areas to be acquired would rely on prior adjudication, whether under this project or previous projects. Land acquisition is a major goal of the Northeast program since there is little probability that significant amounts of unoccupied public lands with a reasonable agricultural potential would be identified in most of the Northeast region by the land project. Land acquisitions would be financed exclusively with government resources, allocated either to INCRA or to the states. Assurances were received from INCRA that beneficiaries of the land redistribution activities would be charged the full value of the land they are allocated (including improvements specifically allocated to each beneficiary), determined in accordance with criteria satisfactory to the Bank, under terms of payment providing for monetary correction and interest in line with those prevailing for agricultural investment credit for small farmers in the region, and a repayment period of not less than 15 years.

4.11 Implementation of land acquisition programs compatible with the needs of each state rural development program would be sought as conditions of the corresponding Bank-financed projects. The infrastructure and agricultural support services required in the areas redistributed following land acquisition and reallocation would be financed under those projects.

D. Rationale for Bank Involvement

4.12 The project supports the Bank's objectives in Brazil of helping promote adjustments required for improved agricultural performance and assisting the country's poverty alleviation efforts. It would help establish land tenure conditions that would enable more small farmers to respond to and benefit from improved incentives, access to credit, and other policy and institutional measures which other Bank loans to the agricultural sector are seeking to promote. Its geographic focus on the Northeast region, where it will be complemented by Bank-supported rural development projects, would intensify Bank support for the government's efforts to increase the productivity and incomes of the poorest segment of Brazil's population. The project would also assist the development of the country's land institutions, expand the use of modern, cost-effective surveying techniques, and introduce new land data processing technologies. Considering the nature of the project, financing from commercial sources is unlikely to be available. The project is expected to be cofinanced by IDB.

E. Detailed Project Features

Aerial Photogrammetry

4.13 Aerial photography operations would cover some 56 million ha divided into 72 blocks to (a) attend to the needs of this project, including a substantial reserve owing to the configuration of the limits of the municipalities to be adjudicated; and (b) prepare the way for uninterrupted land surveys beyond the time frame of the present project. Some 6.5 million ha would be photographed at a scale of 1:60,000; some 45 million ha at a scale of 1:30,000; and the remaining 4.5 million ha, located in areas of denser land occupation, at a scale of about 1:15,000. The basic photographic outputs would be negatives, diapositives and contact prints.

4.14 Ground control, aerial triangulation and mapping activities leading to the production of orthophotomaps or line-maps at three times the scale of the photographs would cover all photographed areas. Insofar as possible, all ground points against which the photographs and subsequent field operations would be referenced would have to be pre-signalized. Ground control operations could be carried out using conventional geodetic methods, an airborne inertial system, a Doppler Transit Satellite system or a Global Positioning system. Aerial triangulation would be carried out using automatic coordinate recording devices and bundle block adjustment programs.

Land Tenure Identification

4.15 The identification of land tenure conditions in a total area of about 31 million ha, would involve (a) the production of microfilms of all land registry documents of the area covered, to analyze the line of conveyance of land properties; (b) widespread notification of the government's intention to review and regularize ownership rights in the areas selected for land adjudication; (c) field surveys leading to the delimitation of private and public properties; (d) the identification of all tenants and occupants established within these properties and evaluation of their claims; and (e) a first estimate of the land potential and value, including a census of the infrastructure and perennial crops found on the land. Microfilming of all land registry documents would be provided by INCRA at no incremental cost to the project.

Cadastral Implementation and Titling

4.16 All geographical and literal information obtained through the preceding stages would be digitalized for computerized storage and processing and the production of about 1 million title documents for rural properties. About 30% of these would be recognition documents for valid titles issued by past administrations. Data obtained through the cadastre establishment process would be regularly updated, and data pertaining to the public domain would be made available against a fee to all public and private users.

Support for Land Restructuring

4.17 The project would finance the (a) technical (land capability assessment) and economic (potential use) studies for the selection of some 3 million ha to be acquired and/or redistributed by the government to some 130,000 beneficiaries; (b) physical planning and temporary administration of areas to be redistributed or reallocated; (c) delimitation, demarcation and titling of the resulting plots; and (d) contracting and supervision of corresponding infrastructure works. The actual works would be financed with PAPP/community development funds or funds from other planned sectoral projects. The site-specific technical and economic studies referred to above would be used by the OETs to develop general land capability assessment norms to be used for zoning purposes.

Institutional Strengthening

4.18 Buildings. Most OETs are in the process of organization or consolidation and lack adequate buildings. The project would finance (a) the construction in each state of a building where OET staff and equipment would be located, with the exception of Minas Gerais, which already has a building

adequate for project purposes, requiring only minor modifications and some furniture; and (b) the rental of office space for the regional units of the OETs (included in land tenure identification overheads).

4.19 Equipment. Each OET would be equipped to process its cadastre and titles to ensure administrative efficiency and the legality of the titles produced. The project would finance the acquisition of (a) electronic data processing equipment, including ten sets of data digitalization and processing units, 12 complementary graphical units, and corresponding software and maintenance; (b) some 530 cars to meet the needs of 221 field survey teams, 72 PFs and regional units and OET headquarters land restructuration and administration units; (c) a variety of minor topographical equipment for field and regional units; and (d) office equipment (and operating expenditures in a gradually decreasing proportion) at OET headquarters and regional units.

4.20 Staff Training and Technical Assistance to the OETs. The on-the-job training of OET field staff would be provided mainly through the integration of experienced surveyors contracted from private firms within the land adjudication teams during the first years of project implementation. The project would further finance the training of some 300 topographers, 300 field technicians and 100 agronomists (involved in land restructuration and the operations of future regional offices) during a 2 1/2-month period each. Some 60 data processing and mapping specialists would be trained in the use of the specific equipment and software of the project, mainly by the enterprise supplying the equipment. If and as required, this training would be preceded by four months of training in data bank management at a local university. Management training would be provided by specialized private firms, according to a program to be defined through the proposed institutional studies (para. 4.23), to some 80 regional office chiefs, about 80 to 100 senior staff of the ten OETs and some 10 INCRA staff administering the project. All above figures assume a drop-out rate of about 10 to 15%. Field staff and agronomists would be trained in topography, photogrammetry and cadastral legislation. Management training would be complemented with a variety of seminars and a few visits to similar land administrations abroad. Some 15 technical and institutional specialists of INCRA would provide both programmed and ad-hoc technical assistance to the OETs. Training of magistrates, state lawyers and farmer union staff would be financed through the various training funds allocated to proposed Northeast rural development projects. INCRA has prepared a technical training program acceptable to the Bank, for INCRA and OET staff.

Project Administration

4.21 Incremental administration costs resulting from the implementation of the project would be financed by the project. Those would mainly include part of the administration costs of the OETs and the salaries and travel costs of 10 DI state program coordinators. The cost of project monitoring at the field level by the OETs and at the OET headquarters level by INCRA and the OETs jointly are included in the administration overheads covered in this section.

Studies

4.22 The project would finance the implementation of a number of institutional, legal and socioeconomic studies which would help INCRA and the OETs gradually improve the efficiency of land operations. Assurances were received from INCRA that (a) detailed terms of reference for cadastre integration, legal and socioeconomic studies would be presented to the Bank for review not later than six months after loan signature; (b) the studies would be contracted not later than nine months after loan signature; and (c) their conclusions and recommendations would be furnished to the Bank.

4.23 Institutional studies would consist of (a) a study by independent consultants of the ways to improve OET management structures, procedures and regulations; implications of such improvements on INCRA functions and structures; and a detailed review of past INCRA and state land activities and experience, particularly within the IDB-financed land project (Annex 3, for proposed terms of reference); and (b) a study of the means of achieving the gradual integration of the modern cadastre produced by the project with the traditional INCRA cadastre to improve the procedures for the establishment of the basis of land taxation and INCRA's capacity to challenge the tax declarations of landowners; and of the feasibility of unifying the rural and urban cadastres of Brazil.

4.24 Legal studies would, in order to strengthen the legal value of the titles produced by the OETs and reduce the judiciary delays which could hamper part of the adjudication process, review (a) the legislation on land adjudication operations, to define clear procedures for the analysis of the titles and rights of absentee owners, tighten the review procedures of all claims to landownership, and limit the period prescribed for lodging objections to the adjudication decisions to a reasonable time after completion of land adjudication; (b) cadastral legislation, to ensure and reinforce, as necessary, the linkages between state cadastres and land registries; and (c) court procedures, to simplify and accelerate the judicial handling of claims not resolved through administrative adjudication procedures and of other land conflicts. The legal studies should result in clear recommendations to the various legislations on the modifications which would be required.

4.25 Socioeconomic studies would review and make recommendations on (a) the present tenure conditions within large- and medium-size farms, the impact of Brazilian tenancy laws on such conditions, the motivation of owners to sell or lease their lands, the motivation of tenants to invest, and related points which could help improve tenancy and production conditions; (b) the services provided traditionally by large landowners to their tenants and means to provide them to newly "franchised" farmers; (c) land taxation principles and procedures, and the institutions which would determine and collect the taxes; and (d) the impact of various government programs and fiscal incentives on land tenure structures. The analysis of the PRUALCOOL program and sugar subsidies would rely mainly on the findings of ongoing studies by the Joao Pinheiro Foundation and further studies funded under other Bank-financed projects.

4.26 The project would also finance the evaluation by independent consultants of the performance and progress of the ten OETs, INCRA and other entities involved in the execution of the project (para. 5.11).

V. PROJECT IMPLEMENTATION

A. Institutional Responsibilities

Federal Responsibilities

5.01 Practically all land operations would be financed with federal resources and be subject to federal legislation, giving considerable say to the Brasilia authorities on the policies and budgetary allocations of the project. An Interministerial Commission--chaired by the Secretary General of the Ministry of Interior and comprising representatives from SEPLAN, the Ministry of Agriculture, MIRAD, the Ministry of Finance and SUDENE--has been established as a forum within which all Northeast project proposals, including the land tenure improvement project, are discussed, adjusted to the budgetary envelope and submitted for collegial approval.

5.02 At the federal level, INCRA would (a) administer the project; (b) establish operational norms and provide technical assistance to the state land institutes; and (c) contract aerophotogrammetric operations and studies; produce microfilms of all land registry archives; acquire land with federal funds; and, later, establish and maintain a central cadastral data bank. Within INCRA, the DI would be responsible for all above activities, including similar activities stemming from the IDB-financed project. Under the coordination of the DI, the DF would acquire lands identified for that purpose by the OETs. Eventually, the DC would administer the central data bank where state level data would be integrated. The DC would make all its statistical information on areas under adjudication available to the OETs. The Bank would rely substantially on INCRA for the supervision of most state-level project activities. Assurances were received from INCRA that the DI would receive full assistance and cooperation from the other INCRA directorates in the implementation of the project. (A draft resolution to that effect is provided in Annex 4.)

State Responsibilities

5.03 Most project activities would be planned and implemented at the state level, mainly through the ten OETs. Their PFs would, in each land adjudication area, (a) review all land registry documents, cadastral documents provided by INCRA and documents presented by the claimants to landownership; (b) conduct field surveys to delimit private and public properties and collect data on each property and its occupants; and (c) plot on the maps provided by INCRA the property boundaries agreed to with their respective claimants. Simultaneously, the CEs would decide on the legality of the various ownership claims. The PFs would also, on the basis of physical and economic data they have obtained, make a preliminary selection and valuation of properties which could be acquired by the government for redistribution. A list of project executing and collaborating agencies is provided in Table 1.

5.04 The OET headquarters would (a) establish, administer and regularly update a computerized data bank where all the cadastral information generated by the PFs would be stored and processed; (b) produce title documents for all recognized landowners; (c) conduct complementary studies leading to the final selection of areas to be acquired and/or redistributed; (d) plan and supervise the implementation of land redistribution and related infrastructure investments with assistance, as required, from specialized state agencies; (e) ensure the temporary administration of lands acquired by the project, until the redistribution operations are completed; and (f) administer land operations undertaken in their state under other ongoing Bank or IDB-financed projects, incorporating all data produced by such projects into the data banks developed under this project. This model assumes that all photogrammetric operations would be entrusted to private firms.

B. Implementation Arrangements

5.05 Project implementation procedures and the mutual obligations of the main institutions involved in the project are the subject of agreements signed in January 1985 between INCRA, SUDENE and each of the states, on the basis of a common model shown in Annex 1. Attachments to the agreements define (a) the areas to be flown over and adjudicated in each state every year (Attachment A); (b) the structures (Attachment C1), basic staff requirements (Attachment C2), recruitment program (Attachment D) and salary targets (Attachment B) of each OET, including the rules for gradually increasing state financing of those expenditures (Attachment E); (c) the technical specifications of the state data banks and corresponding equipment requirements (Attachments F and G); and (d) land acquisition and redistribution targets, reflecting PAPP objectives (Attachment H). OET staff would be recruited through objective selection criteria to be monitored by INCRA. Assurances were received from the Borrower and INCRA that SUDENE or INCRA would not (a) modify without Bank agreement any provisions of the operational agreements with the seven states where Bank funds would be disbursed (para. 6-07); and (b) modify the agreements with the other three states within the project area in a way which would depart from the technical and policy criteria and financial and institutional agreements established for the project.

Programming and Government Financing of Project Activities

5.06 The operational framework of the proposed land activities in the Northeast region has to be considered in association with the wider framework envisaged for the overall Northeast Rural Development Program, notwithstanding the fact that the land project would be fully justified in its own right. Programming and budgeting of project activities would be done on an annual basis, based on the pluri-annual targets defined in the attachments mentioned in the previous paragraph. Annual programs would be first determined at the state level, between the respective OET and UTPNE, and would then be reviewed jointly by INCRA and SUDENE for consolidation within the Northeast Program budget. Field cadastral operations and land redistribution activities are considered to be one-time investment operations and would, therefore, be subject to full federal financing. Initially, current expenditures of the operational divisions of the OETs would also be funded from federal sources. The agreements between INCRA and each state

reflect the project's objective to gradually transfer to the states the burden of OET current expenditures, in order to increase the states' commitment to the longer term project objectives and, to some degree, to decrease their dependence on the federal government. However, as long as present fiscal policies are not modified, the states' own resources will remain extremely scarce, obliging them to continue seeking federal funding.

Institutional Development

5.07 OETs in the process of being established would immediately recruit and train the field staff necessary for the proposed land adjudication program. Overstaffed OETs are already taking measures to have their excess staff transferred to other government agencies. Staff selected to remain within the OETs, originally trained to older techniques, would be provided the same training as newcomers. This would also apply to regional INCRA staff transferred to the OETs. Ongoing IDB- and Bank-financed operations provide most states with a first and successful experience in such institution-building and demonstrate that the recruitment and training targets of this project, though more ambitious, are feasible. Professionals with the required profile are available in Brazil and could be brought into the land institutions with proper financial and professional motivation. The salary structure envisaged in Annex 1, Attachment B, is believed to provide adequate financial incentives. Indicative staffing objectives shown in Annex 1, Attachment C2 should be achieved by the end of the project in agreement with the schedule shown in Attachment D. Assurances were received from INCRA that (a) consultants acceptable to the Bank would be recruited under terms of reference described in Annex 3 to assist the states in their obligation under their agreements with INCRA to prepare proposals for cost-efficient OET management structures staffing and methods within the timetable established in those agreements; (b) it would send the findings of the study to the Bank for review and comment prior to the implementation of its recommendations; and (c) the resulting recommendations would be put into effect promptly upon receipt of the Bank's comments.

Farmer Involvement

5.08 The land adjudication, in order to be fair, efficient and successful, would require tapping the knowledge of area farmers, obtaining their involvement in the administrative process and assisting them in learning and defending their rights as occupants or owners. The agreements between INCRA and the states require the latter to provide the necessary legal assistance to the FETAGs, with funds originating from the PAPP, to (a) promote farmer involvement in the land adjudication activities; (b) ensure the widest possible publicity concerning these activities prior to their initiation and after their completion; and (c) provide legal assistance to small farmers with grievances concerning the adjudication procedures and results, through channels independent from the land administration.

Cadastre Management

5.09 Land cadastres with some degree of uniformity among the states in processing and presentation are indispensable for all facets of land administration. Their initial processing and updating should be done by the OETs in view of their legal responsibility for the land titles they produce.

Digitalization of literal data collected through field surveys could be initially entrusted to state data processing agencies, on the condition that these agencies not be authorized to publish or release any of the resulting data. As the central, normative agency, and in accordance with the timetable agreed upon during negotiations, shown in Annex 5, INCRA would define the minimum capacity, basic input and output formats, and corresponding equipment and software of the state data banks. Cadastral and tenure improvements achieved through surveying, redistribution and titling alone would be gradually lost if parallel measures were not taken to ensure regular monitoring of future changes in land ownership, occupation and use, mainly through an institutionalized link between the existing land registers and the state cadastre systems. The production of computerized titling documents by the project should help simplify and improve registration procedures and thus reduce the burden of the land registries during the peak title production period of the project. INCRA and the OETs would have to monitor closely the application by the land registries of the simplified title registration procedures and of Law 6015 (para. 3.08) and, on the basis of such monitoring and complementary legal studies, recommend to their respective legislatures the passage of any further enforcing legislation that may be required.

Land Acquisition and Redistribution

5.10 The agreements to be signed between INCRA and the states include a detailed description of the selection and acquisition procedures of lands to be redistributed to presently landless farmers and of the role of each institution in redistribution planning and implementation (Annex 1, Ninth clause). These procedures, if adequately implemented, should ensure the application of objective criteria to the choice and determination of the market value of the lands proposed to be acquired. The physical planning of plots and selection of prospective beneficiaries would be done by the OETs along guidelines similar to those developed and satisfactorily implemented within the context of Bank-financed projects by the State of Piauí (Loan 2015-BR) and by INCRA for its new settlements (Loan 2353-BK).

C. Monitoring and Evaluation

5.11 Monitoring of field activities would be implemented by each OET on the basis of a general model. INCRA intends to develop such a model, acceptable to the Bank, within 90 days of the signature of the agreements between INCRA and the states. It would permit an aggregation of each institution's monitoring results for inter-state cost and efficiency comparisons and overall program implementation evaluation by INCRA. Field checks to be implemented as part of the monitoring of adjudication operations would particularly verify the ownership claim analysis process for the largest farms of the region. Progress reports of project activities would be prepared by INCRA on a six-monthly basis through a consolidation of monitoring reports it receives from each state and promptly forwarded to the Bank for review. Project activities would be further subject to two kinds of external evaluation. An evaluation of the performance and progress of the land tenure system would be undertaken by independent consultants hired by INCRA. The OET management study would provide most of the required base-line data for the evaluation of the system. The impact of land activities on their target population and on rural development activities would be evaluated in each state by SUDENE under the respective Northeast projects,

with PAPP financing. The initial cadastral surveys would produce most of the baseline data for the impact evaluation. Preliminary system and (insofar as they are available) impact evaluations of this and previous land projects would be carried out when half of the loan amount will have been disbursed, and updated during the last year of project implementation. The results would be available prior to preparation and appraisal of any follow-up land tenure project in the Northeast region.

D. Implementation Schedule

5.12 The project is expected to be achieved within a period of three and a half years in order to provide timely support to the parallel and extensive rural development operations in the Northeast. If properly managed, the project could reasonably be achieved within such a period, considering (a) the more efficient methods being introduced by the project; (b) its emphasis on further gradual but substantial strengthening of the land institutions, already initiated during project preparation; and (c) the experience generated by the IDB-financed project (which promises to be completed about a year ahead of its four-year schedule). Furthermore, Brazilian authorities are particularly interested in completing the proposed work program within that time. However, there is no prior experience on similar projects against which to compare the proposed implementation schedule.

5.13 The agreements signed between INCRA and the states include detailed attachments showing the proposed timing of adjudication operations in each municipality to be covered by the project. These chronograms allow for the risk of delays in aerial photography due to climatic uncertainties, especially in the state of Maranhao, where climatic conditions are most difficult. The few areas selected for immediate adjudication already have the necessary cartographic documents. To achieve project targets, the OETs would immediately initiate field activities, while undertaking wider planning and institutional reorganization activities which would be completed within the project's life span. However, training activities and studies would be concentrated in the first two years of the project. During that period, OET staff would receive the support of private surveying firms and of experienced INCRA staff seconded from INCRA's regional directorates for the implementation of field activities. A summarized bar-chart of the main project activities is given in Chart 2. The schedule shows an even distribution of aerial photogrammetry and corresponding land survey operations over the three years of the project. Year 0 operations correspond to activities contracted in the latter part of 1984 by INCRA to private photogrammetry firms and initial training of OET staff. Map # IBRD 18685 shows the yearly distribution of aerial photogrammetry operations. Map # IBRD 18686 shows the yearly distribution of land adjudication operations.

VI. PROJECT COSTS AND FINANCING

A. Project Costs

6.01 The total project cost over the three and one-half year implementation period (1985-1988) is estimated at US\$250.5 million, which

includes physical contingencies equivalent to 12.0%^{1/} of the baseline costs, and price contingencies equivalent to 9.2% of baseline costs plus physical contingencies^{2/}. All project costs, including related administration overhead, but excluding cadastre maintenance costs, are creating assets in the form of new state cadastres and a higher agricultural production potential achieved through more equitable land distribution. They are, therefore, considered as capital expenditures. Baseline costs, estimated at October 1984 prices, reflect the various procurement assumptions detailed in paras. 6.04 and 6.05. The costs of year 0 photogrammetric operations are based on the actual contracts already signed by INCRA. The estimated foreign exchange component is US\$95.8 million, or about 38% of total project costs. Project costs include about US\$7.5 million of readily identifiable taxes. The project cost summary follows in Table 6.1; the yearly phasing is given in Table 2, and the distribution per state is shown in Table 3.

B. Financing

6.02 The proposed Bank loan of US\$100.0 million would finance 42% of project costs, net of taxes and excluding the acquisition of data processing equipment. This would cover all of the foreign exchange component of expenditures (excluding data processing equipment) incurred in the States of Bahia, Ceara, Maranhao, Pernambuco, Piaui, Rio Grande do Norte and Sergipe and in the various studies, and about US\$28.1 million of local costs. Expenses to be incurred by the government for the acquisition of lands are excluded from the project. The balance of project financing would be provided by the federal government, mainly through FINSOCIAL funds (generated through a special tax on industrial value-added), probably complemented by a loan from LDB, which is expected to participate in the financing of activities implemented in the States of Alagoas, Minas Gerais and Paraiba, which have a total cost of about US\$54.6 million. The states would finance a small but gradually increasing segment of OET current expenditures. A financing plan is shown in Table 4. The loan would be for 15 years, including 3 years of grace.

6.03 In view of the climatic constraints limiting the periods during which aerial pictures can be taken, and to ensure timely and effective project implementation, aerial photogrammetry operations in areas to be adjudicated during the first year of project implementation have been initiated under advance contracting in the last quarter of 1984. Their cost is included in total project costs.

^{1/} Physical contingencies were added to baseline costs at 20% for land tenure identification, buildings and data processing equipment; 10% for other equipment and ground control operations; and 5% for the remaining components.

^{2/} Price contingencies were calculated in US dollars at 5% in 1985, 7.5% in 1986 and 8% in 1987 and 1988 for all project costs. They assume that the exchange rate of the Brazilian cruzeiro will be periodically adjusted to compensate for any domestic inflation above world inflation rates.

Table 6.1: Total Project Costs
(US\$ '000)

<u>Project Component</u>	<u>Local</u>	<u>Foreign</u>	<u>Total</u>	<u>% Total Baseline Cost</u>	<u>% Foreign Exchange</u>
<u>Aerial Photogrammetry</u>					
Aerial photography	2,500	7,600	10,100	5	75%
Ground control, aerial triangulation and mapping	23,550	43,750	67,300	33	65%
<u>Land Tenure Identification</u>	50,400	8,900	59,300	29	15%
<u>Cadastre Implementation and Titling</u>	9,300	3,100	12,400	6	25%
<u>Support for Land Restructuring</u>	15,450	3,850	19,300	9	20%
<u>Institutional Strengthening</u>					
Buildings	3,350	1,450	4,800	2	30%
Data processing equipment	2,400	3,300	5,700	3	60%
Other equip. and furniture	6,400	5,200	11,600	6	45%
Staff training and technical assistance	3,150	1,050	4,200	2	25%
<u>Project Administration</u>	8,700	-	8,700	4	0%
<u>Studies</u>	1,250	150	1,400	1	10%
<u>Total Baseline Cost</u>	126,450	78,350	204,800	100	
Physical contingencies	15,200	9,400	24,600	12.0	
Price contingencies	13,050	8,050	21,100	10.3	
<u>Total Project Cost</u>	154,700	95,800	250,500		38%

C. Procurement

6.04 Photogrammetric operations initiated in 1984 (about US\$13.3 million) have been procured through local competitive bidding (LCB) open to foreign firms. Subsequent cartography operations (US\$68.3 million) would be procured through international competitive bidding (ICB). The corresponding aerial photography component (US\$9.6 million, divided among some 30 tenders), for which ample domestic contracting capability exists, would be procured through LCB from local firms exclusively, at EMFA's request on security grounds.

6.05 Land tenure identification, cadastre implementation, titling, land restructuring operations, project administration and most staff training, totalling US\$127.0 million, would be implemented directly by the staff of INCRA and the OETs, which carry legal responsibility for the completeness and correctness of the documents resulting from the adjudication process. Initial assistance from private firms in land tenure identification (US\$3.5 million) would be procured through local competitive bidding procedures, acceptable to the Bank. Foreign firms would not be excluded but are not likely to be interested given the small size of individual contracts and the language requirements. OET buildings and cars (US\$18.6 million) would be procured in each state through LCB procedures, defined by Federal Decree-Law 200, para. 67, which are acceptable to the Bank. Minor office equipment (US\$1.5 million) would be acquired through prudent local shopping. Electronic data processing equipment required for cadastral purposes (US\$7.1 million) would be procured through the local representative of the main international producer of such equipment and would not be eligible for Bank financing. Assurances were received from INCRA that it would (a) furnish to the Bank, not later than 90 days after project signature, a proposal, satisfactory to the Bank, on the technical and institutional issues related to the establishment of state data banks, including the specifications of the equipment to be utilized; and (b) not later than April 30, 1986, acquire this equipment and have each state install it.

6.06 Consultancy services (totalling about 220 man-months) for technical assistance to the OETs and studies would be procured in accordance with Bank guidelines, at base costs of about US\$7,000 per month, of which about 70% would be fees and 30% other costs. For all aerial photogrammetry contracts, purchases of cars and all other contracts exceeding US\$500,000, the Bank would review and approve standard procurement documents and specifications prior to bidding, and bid evaluations and award recommendations prior to signing contracts. Procurement arrangements are detailed in Table 6.2 below.

D. Disbursements

6.07 Bank funds would be disbursed only against expenditures made with respect to the States of Bahia, Ceara, Maranhao, Pernambuco, Piaui, Rio Grande do Norte and Sergipe, and against 100% of all studies. The proceeds of the Bank loan would be disbursed on the basis of 80% of the cost, which is net of duties and taxes, of photogrammetric services acquired through ICB procedures. This excludes aerial photography services and electronic

Table 6.2: Procurement Arrangements
(US\$ million)

	<u>Total Project</u>			<u>States in which Bank Disburses</u>			<u>Total</u>
	ICB	LCB	Other	ICB	LCB	Other	
Aerial photography	-	11.3	-	-	8.4 (0)	-	11.3 (0)
Ground control, aerial triang., mapping	68.3	11.6	-	52.6 (42.1)	7.9 (0)	-	79.9 (42.1)
Land tenure identification	-	3.5	75.7	-	2.7 (1.4)	60.8 (30.4)	79.2 (31.8)
Cadastre implementation and titling	-	-	14.1	-	-	10.5 (5.3)	14.1 (5.3)
Support for land restructuring	-	-	22.5	-	-	17.4 (8.7)	22.5 (8.7)
Buildings	-	5.9	-	-	4.8 (2.4)	-	5.9 (2.4)
Data processing equipment	-	-	7.1	-	-	5.1 (0)	7.1 (0)
Other equipment and furniture	-	12.7	1.5	-	11.0 (5.5)	1.1 (0.6)	14.2 (6.1)
Staff training and T.A.	-	-	4.6	-	-	4.0 (2.0)	4.6 (2.0)
Project administration	-	-	10.1	-	-	8.0 (0)	10.1 (0)
Studies	-	1.6	-	-	1.6 (1.6)	-	1.6 (1.6)
Total	68.3	46.6	135.6	52.6 (42.1)	36.4 (10.9)	106.9 (47.0)	250.5 (100)

Note: The figures in parentheses are the respective amounts to be disbursed by the Bank.

equipment, against which no disbursements would be made. No disbursements would be made against project administration staff. Disbursements for buildings, cars, travel for staff training and technical assistance purposes, land tenure identification, land restructuring, cadastre implementation and titling would be made at a uniform rate of 50%, under Statements of Expenditures initiated by the various executing agencies and certified by INCRA. Supporting documentation would not be submitted to the Bank, but would be retained by INCRA and would be made available for inspection by the Bank during project supervision missions. Standard documentation covering aerial photogrammetry services, buildings, vehicles and consultant services would be submitted to the Bank. In the absence of a standard disbursement profile, disbursements are expected to occur over about four years (para. 5.12). An estimated schedule of Bank disbursements is shown in Table 5. The Closing Date of the loan would be September 30, 1988.

6.08 Retroactive financing of up to US\$7.0 million is considered for costs incurred after January 1, 1985, for (a) land tenure identification and project administration activities of the OETs; (b) staff training; and (c) the acquisition of some cars and equipment.

6.09 In order to reduce the interval during which the government would finance the Bank's share of project financing with its own resources, a Special Account would be opened in the Central Bank with an initial deposit of US\$8 million. The government may request the Bank to make advance payments in dollars from the loan account into this Special Account. Withdrawals in cruzeiros from the Special Account would be made at the exchange rate that prevailed on the date of expenditure. The Central Bank would send the corresponding Statements of Expenditures to the Bank, which would then replenish the Special Account.

E. Account and Audit Requirements

6.10 Each of the participating agencies would maintain separate accounts of its project expenditures, which would be audited annually by the Central Secretariat of Internal Control (SECIN) of the Ministry of Finance according to standard government practice. The audit report would convey the auditor's opinion on the adequacy of procedures used for the preparation and verification of statements of expenditures and their accuracy, eligibility for financing in accordance with compliance with legal agreements, and the standard of record-keeping and internal controls. The Special Account would be audited by independent auditors satisfactory to the Bank. The Government would forward to the Bank audit reports within six months after the close of each project fiscal year.

VII. PROJECT JUSTIFICATION AND RISKS

A. Project Benefits

7.01 The greater security of tenure, the project activities in support of land restructuring and the planned improvements in the collection and updating of cadastral data would yield significant benefits. It is not possible to quantify those benefits because of lack of data and of empirical studies. It is also practically impossible to distinguish benefits generated by the provision of a title from the overall improvements resulting from

parallel rural development operations, although it is expected that the latter would have a lower efficiency in an unimproved land tenure environment. The choice of least cost approaches among several technological alternatives has therefore been a basic objective in the preparation of the project. The evaluation of the impact of land activities (para. 5.11) should help obtain quantified estimates of project benefits, which could be used in the preparation of future projects. Available evidence indicates, however, that secure land tenure would entail, in a financial environment which is not otherwise constrained, better access to on-farm investment credit and a keener interest of the farmer in improving his land assets. However, it has proven very difficult to put reliable numerical values on the potential benefits of a land tenure improvement project.

7.02 A recent study conducted in sample areas of the IDB-financed land project in the Northeast has shown a positive impact of the availability of titles on farm investments. In practically all areas and farm-size categories investigated, and notwithstanding the credit crunch in the region, average per hectare investment was higher in farms with a title than those without. The difference was between 20% and 80% in more than 50% of the sample categories and even higher in most of the other categories. The same study also showed that, other things being equal, land with a title was worth at least 10% more than land without. The unit cost of the proposed project would be about US\$7.5 per ha, including all project costs and physical contingencies, or US\$225 for an average farm of 30 ha. However, it would be only US\$5.5 per ha or US\$165 per farm if photogrammetry, institution building and land redistribution planning costs which go beyond the specific objectives of this project were excluded. These unit costs can be usefully compared to the production potential of a small farmer on average soils of the region and with limited know-how and credit, estimated at US\$80 to US\$160 per ha, or with the increase of value of an average property that can be reasonably expected in view of the above-mentioned study, of at least US\$300 (10% of, say, US\$100 per ha x 30 ha per farm). About 28% of project costs, corresponding to the land tenure identification component, are particularly sensitive to the efficiency of the newly trained staff of the OETs and to possible legal or administrative delays in project implementation. Physical contingencies of 20% have been added to the base cost of the component to reflect such a risk. An overrun of 50% instead of 20% over the base cost of the component would bring the average total project cost to US\$8.1 per ha (US\$6.8 per ha of direct costs), a figure which still compares well with expected benefits. A reduction of 40% in areas adjudicated within the project's life would bring the direct unit cost of the project to about US\$7.5 per ha.

7.03 Beyond the immediate production and corresponding employment benefits that could be generated by the land project, better tenure conditions are expected to reduce (a) land conflicts and their usually violent outcomes; (b) rural/urban migration, with its attendant economic and social costs; (c) costly and time consuming movements of sharecroppers to different lots each year; and (d) the administrative costs to the government of land administration and taxation. A more rational taxation of the land, based on the productive potential of the land rather than on its actual use, which the project would help make possible, should also lead to a more intensive use of agricultural land, particularly in the larger, underutilized, properties. Major improvements of the existing land tax

legislation may, because of their political difficulty, take years to achieve. However, a more objective evaluation of the tax basis would be possible through extensive and accurate land surveys.

B. Project Beneficiaries

7.04 Available statistics show that the average size of farms is close to 30 ha in the Northeast region. The project would, therefore, result in the adjudication of some 1 million plots. Out of these, some 300,000 properties may already have titles. The project would confirm those titles, if found valid, with corrections to the boundaries where required. The main beneficiaries of the project would, however, be a significant proportion of the remaining 700,000 occupant, tenant or landless families, who would either receive a title to the land they have been working or be settled on previously public lands or lands acquired by the government for redistribution purposes. Some 130,000 families are expected to benefit from such land redistribution. It has been assumed, in other segments of this report, that at least one-fifth of direct project beneficiaries, i.e., at least 200,000 farmer families, would further benefit from improved access to agricultural credit as a result of the parallel Northeast rural development projects. Improved tenure conditions should also result for an undetermined number of sharecroppers and tenants whose tenure contracts would indirectly benefit from the more secure titles of their land-owners.

C. Project Risks

7.05 A variety of risks that may affect the project are discussed below. In view of the general political and technological trends of the country, they are considered to be manageable. The proposed project would strengthen the government's capacity to implement the agrarian reforms aimed at by Brazilian legislation. As such, it would have political implications at various levels of Brazilian society. At the level of federal and state administration, the project enjoys overall political support. Such support should result in the allocation of adequate financial resources on a timely basis. At the level of small farmers, a small risk remains that a perception by these farmers that the project has failed to meet the expectations it generated would lead to adverse political reactions. The project could suffer from delays in institutional development, improper collaboration between agencies (in particular with the state land registries), legal obstructions from unsatisfied claimants to landownership or, in the early years, a lower efficiency of staff and/or data processing equipment than expected, resulting in the adjudication of a smaller area than originally estimated. Therefore, the project puts heavy emphasis on technical assistance, staff training and studies of possible legislative and administrative improvements. Furthermore, the photogrammetric technologies used in the project have already been extensively used in Brazil. Some reduction in the total area adjudicated by the project would not reduce the value of the project insofar as the quality of the results remains satisfactory. The report has been written on the assumption that the related program of investments which the government is discussing for IDB assistance will be fully compatible with the aims and procedures for this project; otherwise administrative confusion could harm project implementation. The establishment of state data banks, without which the project's longer term impact would be substantially reduced, requires putting into service, early

in project implementation, highly specialized data processing equipment which will not be produced in Brazil in time to meet project requirements and will therefore have to be imported. The timely implementation of aerial photography, on which subsequent project activities depend, could be delayed by unfavorable weather conditions. However, beyond the first, tightly scheduled year, measures have been built into the project for the aerial photogrammetry of a given area to be implemented up to one year ahead of subsequent operations. The theoretical possibility that farmers receiving titles to particularly small plots would sell their plots and move out of the region would be the result of a free decision of the farmers, imply the development of a more fluid land market and help to some degree in the reallocation of lands to other small farmers. Finally, while the immediate, self-contained objectives of the project justify the proposed investment, full benefits would only be derived if credit, technical assistance and marketing infrastructure were also made available to the land project's beneficiaries, through development programs such as those envisaged under the Northeast projects.

VIII. AGREEMENTS REACHED AND RECOMMENDATION

8.01 Assurances were received during negotiations from the Borrower that it would cause each of the states in the project area to take all actions necessary to acquire land in a timely manner to meet the land redistribution targets defined in the operational agreements signed between INCRA, SUDENE and those states (para. 4.09).

8.02 Assurances were received during negotiations from the Borrower and INCRA that SUDENE or INCRA would not (a) modify without Bank agreement any provisions of the operational agreements with the seven states where Bank funds would be disbursed; and (b) modify the agreements with the other three states within the project area in a way which would depart from the technical and policy criteria and financial and institutional agreements established for the project (para. 5.05).

8.03 Further assurances were received during negotiations from INCRA that:

- (a) beneficiaries of the land redistribution activities would be charged the full value of the land they are allocated (including improvements specifically allocated to each beneficiary), determined in accordance with criteria satisfactory to the Bank, under terms of payment providing for monetary correction and interest in line with those prevailing for agricultural investment credit for small farmers in the region, and a repayment period of not less than 15 years (para. 4.10);
- (b) (i) terms of reference for cadastre integration, legal and socioeconomic studies would be presented to the Bank for review not later than six months after loan signature; (ii) the studies would be contracted not later than nine months after loan signature; and (iii) their conclusions and recommendations would be furnished to the Bank (para. 4.22);

- (c) The DI would receive full assistance and cooperation from the other INCRA directorates in the implementation of the project (para. 5.02);
- (d) (i) consultants acceptable to the Bank would be recruited according to the timetable established in the operational agreements with the states to study OET management structures, staffing and methods; (ii) it would send the findings of the study to the Bank for review and comment prior to the implementation of its recommendations; and (iii) the resulting recommendations would be put into effect promptly upon receiving the Bank's comments (para. 5.07); and
- (e) it would (i) furnish to the Bank, not later than 90 days after project signature, a proposal, satisfactory to the Bank, on the technical and institutional issues related to the establishment of state data banks, including the specifications of the equipment to be utilized; and (ii) not later than April 30, 1986, acquire this equipment and have it installed by each state (para. 6.05).

8.04 With the above assurances and conditions, the project is suitable for a Bank loan of US\$100.0 million equivalent. The term would be for 15 years including a 3-year grace period.

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NATIONAL LAND ADMINISTRATION PROGRAM

Table 1

NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT

List of Executing and Main Collaborating Agencies

PROJECT ACTIVITIES	EXECUTING			MAIN COLLABORATING	
	Federal and Regional	State	Others	Federal and Regional	State
Pluri-annual programming	Interministerial Commission + INCRA			SUDENE	Rural Dev't. Council
Annual "operational" program	INCRA	OET			UTPNE
Annual Budgeting	INCRA			SEPLAN+ SUDENE	SEPLAN/State + OET + UTPNE
Aerial Photogrammetry - Contracts - Execution	INCRA		private firms	COCAR+MEAF	
Land Tenure Identification		OET (PFs)	private firms		
Data Bank Design	INCRA			SERPRO	OET
Cadastral Implementing and Titling		OET		INCRA/DC	Land Registries + State Data Processing Agencies
Land Acquisition - Identification - expropriation - purchase	INCRA INCRA	OET (PF) OET			State Land Council OET
Support Activities for Land Restructuring		OET		SUDENE	UTPNE
Purchase of Data-processing Equipment	INCRA		Maintenance Contractors	Secretaria de Informatica	
Staff Training and Technical Assistance to the OETs	INCRA		private cons.		
Assistance to Farmer Organizations		UTPNE		SUDENE	
Training of Judicial Organisms		OET		INCRA	
Review of Agrarian and Cadastral Legislation	INCRA	OET			UTPNE
Project Administration & Monitoring	INCRA	OET			
Studies - contracts - execution	INCRA INCRA		consultants		OET
Evaluation	INCRA + SUDENE		private cons.		

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TABLE 2

NATIONAL LAND ADMINISTRATION PROGRAM

NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT

Cost Phasing of Project Activities
(US\$ '000)

Year	0	1	2	3	Total Cost
<u>Aerial-Photogrammetry</u>					
Aerial Photography	1,600	3,850	2,600	2,050	10,100
Ground Control and Mapping	10,500	25,800	17,300	13,700	67,300
<u>Land Tenure Identification</u>	2,000	17,300	18,200	21,800	59,300
<u>Cadastral and Titling</u>	500	3,600	3,250	5,050	12,400
<u>Support for Land Restructuring</u>	500	5,100	6,700	7,000	19,300
<u>Institutional Strengthening</u>					
Buildings		4,800			4,800
Data Processing Equipment		5,700			5,700
Other Equipment and Furniture	250	2,650	4,050	4,650	11,600
Staff Training & Tech. Assistance	700	2,500	500	500	4,200
<u>Project Administration</u>	350	2,750	2,800	2,800	8,700
<u>Studies</u>		800	600		1,400
<hr/>					
Base Line Cost	16,400	74,850	56,000	57,550	204,800
Physical Contingencies	1,650	9,300	6,600	7,050	24,600
Price Contingencies		2,550	6,250	12,300	21,100
<hr/>					
Total Project Cost	18,050	86,700	68,850	76,900	250,500

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NATIONAL LAND ADMINISTRATION PROGRAM
NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT

Project Costs Per State
US\$ '000

Project Components	Alagoas	Bahia	Ceara	Maranhao	Minas Gerais	Paraiba	Pernambuco	Piaui	Rio Grande do Norte	Sergipe	Total
Aerial Photography	1,400	1,850	1,050	1,000	650	400	1,100	1,500	350	800	10,100
Ground Control and Mapping	9,300	12,300	7,000	6,600	4,500	2,600	6,900	10,400	2,400	5,300	67,300
Land Tenure Identification	4,450	10,300	9,100	3,500	2,550	3,950	8,650	11,000	3,100	2,700	59,300
Cadastre Implementation and Titling	1,400	2,300	1,000	750	650	1,500	2,350	1,400	350	700	12,400
Support for Land Restructuring	1,050	4,300	2,150	1,750	1,550	1,850	1,700	2,500	1,550	900	19,300
Buildings	350	1,100	550	600	100	450	600	450	350	250	4,800
Data Processing Equipment	600	800	600	600	400	550	650	600	450	450	5,700
Other Equipment and Furniture	900	2,600	1,000	1,800	300	600	1,700	1,600	400	700	11,600
Staff Training and Tech. Assistance	300	950	400	700	100	200	600	550	150	250	4,200
Project Administration	600	1,350	850	900	500	700	800	800	600	500	7,600
Baseline Costs	20,350	37,850	23,700	18,200	11,300	12,800	25,050	30,800	9,700	12,550	202,300
Physical Contingencies	2,350	4,500	3,150	2,000	1,250	1,550	3,150	3,900	1,200	1,450	24,500
Price Contingencies	2,050	3,950	2,400	1,950	1,150	1,300	2,650	3,250	1,000	1,300	21,000
Total	24,750	46,300	29,250	22,150	13,700	15,650	30,850	37,950	11,900	15,300	247,800

Note: Above costs exclude studies and federal level administrative overheads.

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NATIONAL LAND ADMINISTRATION PROGRAM

NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT

Financing Plan a/
(US\$ million)

	<u>Brazilian Government</u>		<u>b/</u>		
	<u>Federal</u>	<u>State</u>	<u>IDB</u>	<u>Bank</u>	<u>Total</u>
<u>Aerial Photogrammetry</u>					
Aerial Photography	11.3	-	-	-	11.3
Ground Control, Aerial Triangulation and Mapping	21.8	-	16.0	42.1	79.9
<u>Land Tenure Identification</u>	34.4	-	13.0	31.8	79.2
<u>Cadastre and Titling</u>	6.8	-	2.0	5.3	14.1
<u>Support for Land Restructuring</u>	9.8	-	4.0	8.7	22.5
<u>Institutional Strengthening</u>					
Buildings	2.5	-	1.0	2.4	5.9
Data Processing Equipment	7.1	-	-	-	7.1
Other Equipment	5.6	-	2.5	6.1	14.2
Staff Training & Tech. Assist.	1.1	-	1.5	2.0	4.6
<u>Project Administration</u>	0.1	10.0	-	-	10.1
<u>Studies</u>	-	-	-	1.6	1.6
 Total	 100.5	 10.0	 40.0	 100.0	 250.5

a/ Including physical and price contingencies.

b/ Tentative estimate.

TABLE 5

BRAZIL
NATIONAL LAND ADMINISTRATION PROGRAM
NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT
Estimated Schedule of Bank Disbursements ^{1/}
(US\$ million)

Calendar Year	Quarter Ending	Disbursed During Quarter	Cumulative Amount Disbursed	Balance of Loan
1985	June 30	0	0	100.0
	Sept. 30	8.0	8.0	92.0
	Dec. 31	8.0	16.0	84.0
1986	March 31	8.0	24.0	76.0
	June 30	9.0	33.0	67.0
	Sept. 30	9.0	42.0	58.0
	Dec. 31	9.0	51.0	49.0
1987	March 31	8.0	59.0	41.0
	June 30	9.0	68.0	32.0
	Sept. 30	6.0	74.0	26.0
	Dec. 31	7.0	81.0	19.0
1988	March 31	7.0	88.0	12.0
	June 30	8.0	96.0	4.0
	Sept. 30	4.0	100.0	0

1/ Including Special Account Deposit.

BRAZIL

NATIONAL LAND ADMINISTRATION PROGRAM

NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT

Periods Suitable for Aerial Photography

	PERIODS OF MAXIMUM PROBABILITY											
	J	F	M	A	M	J	J	A	S	O	N	D
Alagoas												
Bahia N-E												
Bahia S-E												
Bahia Center												
Bahia West												
Ceara North												
Ceara South												
Maranhao North												
Maranhao South												
Minas Gerais												
Paraiba East												
Paraiba West												
Pernambuco East												
Pernambuco West												
Piauí North												
Piauí South												
Rio Grande do Norte												
Sergipe												

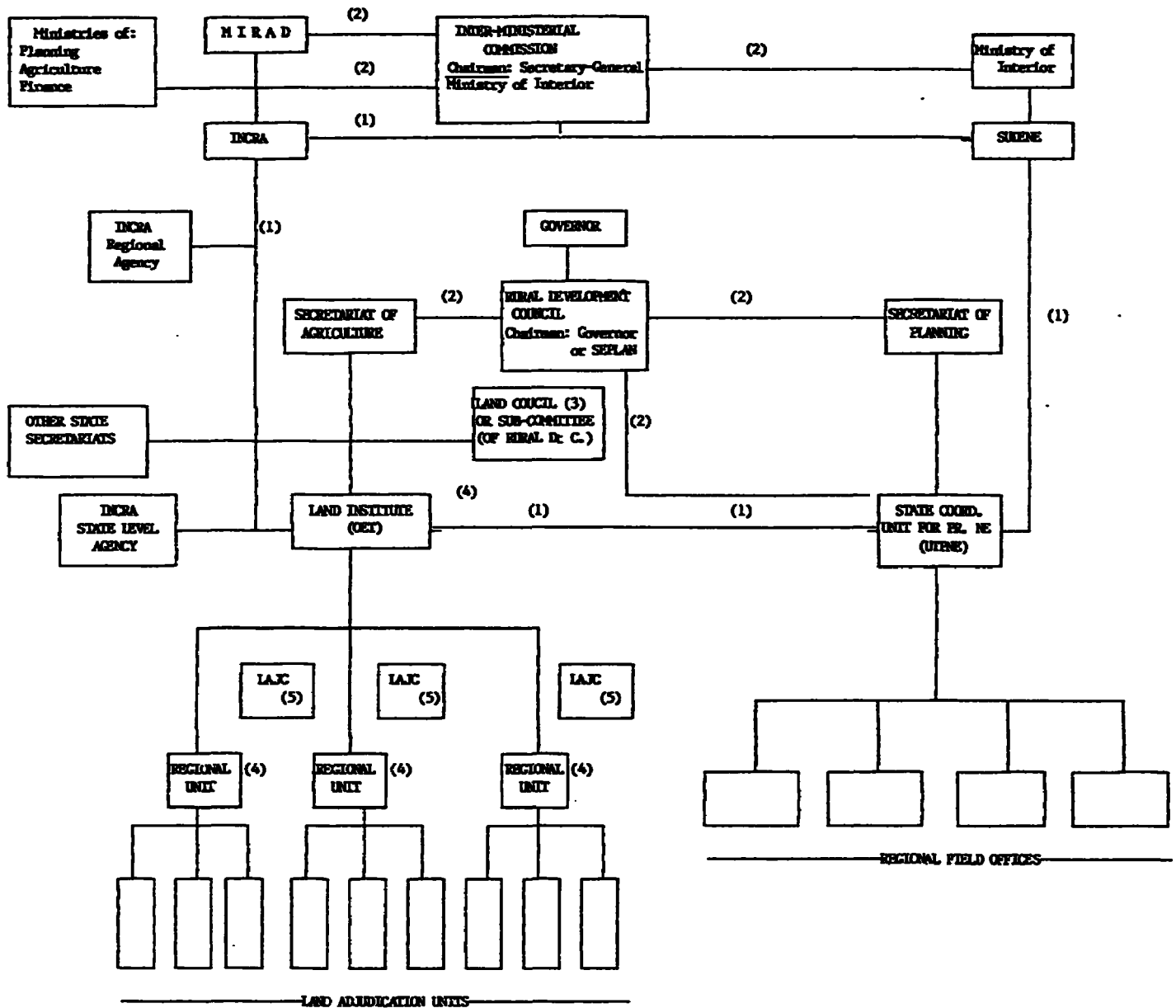
BRAZIL
NATIONAL LAND ADMINISTRATION PROGRAM
NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT
Main Project Activities - Implementation Chart

	1984	1985	1986	1987	1988
	Year 0	Year 1	Year 2	Year 3	
Aerial Photography	_____	-----	-----	-----	
Ground Control	-----	_____	_____	_____	
Aerial Triangulation-Mapping	-----	_____	_____	_____	
Consolidation of State Land Institutes	-----	_____	-----	_____	
Field Identification	-----	-----	_____	_____	
Land Adjudication	-----	-----	_____	_____	
Buildings		_____	_____	_____	
Land Restructuration		_____	-----	_____	
Equipment		_____	_____	_____	
Establishment of Data Processing Units		_____	_____	_____	
Staff Training	_____	_____	-----	-----	
Studies		_____	_____	_____	

_____ Full implementation
 ----- Part time or complementary activities

NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT

Project Organization Chart



- (1) Concerted programming
- (2) Participation
- (3) a Land council would function under the Secretariat of Agriculture in most states
- o Land sub-committee would function within the Rural Development Council
- (4) Submission of land acquisition proposals
- (5) Land Acquisition Joint Committee

BRAZIL

NATIONAL LAND ADMINISTRATION PROGRAM

NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT

Model of Agreement Between INCRA and the States

Agreement Entered into by the National Institute for Colonization and Agrarian Reform (INCRA), the State of _____, and the Superintendency for the Development of the Northeast - SUDENE, with a View to Promoting Land Activities in Areas under State Jurisdiction within the Framework of the Northeast Project.

The National Institute for Colonization and Agrarian Reform (INCRA), an independent federal agency created by Decree-Law No. 1.110, of July 9, 1970, as amended by Law No. 7231, of October 23, 1984, hereinafter known as INCRA, and represented herein by its president, _____, as provided for by Article 5, para. 1 of the above Decree, the State of _____, hereinafter known as the State, and represented herein by its governor, Dr. _____ and the Superintendency for the Development of the Northeast, hereinafter known as SUDENE, and represented herein by its superintendent, _____,

CONSIDERING the provisions of Article 160, clause III of the Federal Constitution, which construes the social function of property as one of the pillars of national development and social justice;

CONSIDERING the advisability of a policy of harmony, compatibility, collaboration and cooperative organization for public agencies that act at different levels of government (Land Statute, Article 6);

CONSIDERING the integral planning of economic and social development and just redistribution of lands of national interest (Articles 17, 18, 20, 24 and 25 of the Land Statute);

CONSIDERING Decree No. 87.457 of August 16, 1982, which instituted the National Land Policy Program and regulates the powers of the Special Minister of State for Land Affairs and stipulates other provisions;

CONSIDERING the objectives and directives set out in the National Land System Development Project and the Support Program for Small Rural Producers of the Northeast Project, whose operational proposals were adopted by the Interministerial Commission of the Northeast Project, created by Interministerial Decree No. 158 of September 20, 1982, as amended by Interministerial Decrees Nos. 2 of January 17, 1984 and 64 of May 16, 1984;

CONSIDERING Law No. 6.383 of December 7, 1976, which regulates the adjudication process of public lands, INCRA Decree No. 407, of April 26, 1977, as amended by INCRA Decree No. 85 of April 14, 1981, which established the Union Lands Adjudication System;

CONSIDERING...(relevant state laws);

CONSIDERING the need to regulate the relationships between and ensure the compatibility of the activities of the National Land System Development Program - PDSFN, under INCRA responsibility, the land activities required by the Support Program for Small Rural Producers - PAPP, under the responsibility of the State, and the directives of the Northeast Project, whose coordination is the responsibility of SUDENE, in furtherance of the recommendations of the Interministerial Commission of the Northeast Project:

RESOLVE to enter into this agreement, subject to the following conditions and clauses:

I - GENERAL CONDITIONS

FIRST CLAUSE - The objective of this agreement is to establish directives and cooperative procedures of a coordinated nature between INCRA, the State and SUDENE relating to the implementation of the National Land System Development Program - PDSFN, to serve the needs of the land activities component of the State Support Program for Small Rural Producers - PAPP, of the State.

SOLE PARAGRAPH - The activities planned under the PDSFN are the following:

I. Institutional strengthening, specifically of (State Land Agency - OET), and improved legislation;

II. Land ownership regulation through adjudication of state public lands, demarcation and titling;

III. Establishment of a cadastre and land data bank prepared on the basis of identification of land uses and land regularization activities;

IV. Land redistribution to landless producers;

V. Land reallocation by redimensioning rural properties to alleviate the problem of small producers whose lands are not large enough to sustain them and provide what they need for progress;

VI. Legal assistance to small producers; and

VII. Special studies.

SECOND CLAUSE - The activities described in the SOLE PARAGRAPH of the FIRST CLAUSE, items I to VII, shall be implemented under the responsibility of the State, INCRA and SUDENE, as specified below.

FIRST PARAGRAPH - The activities within the competence of the State relating to execution of this agreement shall be executed by (name of the Office of the Secretary of State to which the OET is subordinate), through the (OET) and by the technical unit (UTPNE) designated by the State to administer and coordinate implementation of the several activities planned for the PAPP.

SECOND PARAGRAPH - The activities within the competence of INCRA shall be executed by its different directorates, under the responsibility of the Directorate of Integration with States and Territories (DI), which shall be responsible for programming, establishment of operational norms, technical and financial administration and follow-up of the activities referred to herein.

THIRD PARAGRAPH- The activities within the competence of SUDENE shall be executed by the Deputy Superintendency of Rural Development (hereinafter called SDR).

THIRD CLAUSE - The actions to which the items of the SOLE PARAGRAPH of the FIRST CLAUSE refer shall be implemented in the entire territory of the State, starting with priority areas defined by the State and in conformity with the directives and rules established in the document entitled, "Projeto Nordeste - Programa Regional de Apoio ao Pequeno Produtor Rural (Northeast Project - Regional Support Program for Small Rural Producers)".

FIRST PARAGRAPH - The areas considered priorities for the purposes of this agreement, and the timetable for their incorporation into the project, are described in Annex A.

SECOND PARAGRAPH - Changes in the priority areas described in Annex A may be made, on an exceptional basis, in conformity with the conditions established in this CLAUSE, and with the consent of the institutions mentioned in the SECOND CLAUSE.

THIRD PARAGRAPH - Similarly, the State agrees not to alter the areas of concentrated action of the PAPP unless it reaches a prior understanding with the other signatories of this agreement.

FOURTH CLAUSE - In the event the PDSFN and the PAPP of the State receive external financing, the signatory institutions of this agreement agree to respect and comply with, or secure compliance with, the conditions stipulated in the loan agreements and projects to be signed by the Brazilian government and the external financial agents, in line with the objectives of this agreement.

II - CONDITIONS OF EXECUTION

Annual Operating Plans

FIFTH CLAUSE - Pursuant to the provisions of this agreement, the institutions responsible for implementation of the actions provided for herein shall prepare or have prepared the Annual Operating Plans (POA), execute or have executed the actions for which they are responsible in an efficient manner, in good time and in accordance with appropriate technical, administrative and financial practices, and refrain from undertaking any actions that impede or prevent the execution of the same.

FIRST PARAGRAPH - On the basis of pluri-annual programming, INCRA shall, with assistance from SUDENE, furnish to the State the parameters necessary for development of the Annual Operating Plans (POA).

SECOND PARAGRAPH - The POA shall be prepared by the (OET), with the support and assistance of the technical unit of the PAPP and of the SDR of SUDENE, and submitted to the Office of the State Secretary of Planning, which shall send to INCRA a proposal reflecting the priorities of the State.

THIRD PARAGRAPH - INCRA, with the collaboration of SUDENE, shall analyze the POA in consideration of a consolidated statement for all the States to determine any changes and adjustments necessary to adapt the POA of each State to the global amount of resources assured to the PDSFN.

FOURTH PARAGRAPH - The final POA that results from this analysis and harmonization shall contain detailed information about the areas of action (with attached maps) for the complete group of operations provided for in the FIRST CLAUSE, goals by component, cost of operations and sources of financing, as well as the human resources needed for each activity, furnished by each agency.

FIFTH PARAGRAPH - The activities and operations planned for the POA and implemented by the (OET) shall be recorded and reported to INCRA and to SUDENE, on a quarterly basis, using specific forms provided by INCRA, for purposes of monitoring. INCRA shall be responsible for exercising supervision over the execution of the POA.

SIXTH PARAGRAPH - The monitoring (follow-up) reports produced by the OETs shall circulate freely among all the institutions involved in the land action.

SEVENTH PARAGRAPH - Other commitments undertaken in this agreement notwithstanding, INCRA shall be responsible for transferring financial resources to the State, whose amounts, timetables and sources, including any external agencies that cofinance the PDSFN, shall be determined by means of addenda to this agreement, through which the parties will agree to provide the physical, financial and human resources for best performance of the plan actions.

Institutional Development

SIXTH CLAUSE - The institutional and legislative improvement activities mentioned in the SOLE PARAGRAPH, item I, of the FIRST CLAUSE shall be achieved by means of improving the technical-operational, administrative, and organizational capacity of the (OET) and implementing measures designed to place it at a higher structural rank and by supporting the institutions and agencies involved in the process of land action such as representative organizations of agricultural beneficiaries of the PAPP, land registries and other agencies of the judicial branch of government.

FIRST PARAGRAPH - The State, in furtherance of the ideas of the Regional Proposal of the PAPP, shall organize and implement a State Land Council which shall have, in addition to others, the following functions:

- I - Advise the (OET) on the formulation of state land policy proposals;

II - Decide on the processing of proposals to acquire and redistribute lands under the framework of the state PAPP, in accordance with the provisions of the clauses of this agreement.

SECOND PARAGRAPH - Upon request of the State, INCRA shall appoint a representative to advise the State Land Council.

THIRD PARAGRAPH - The State agrees to take steps to enable the (OET) to enhance its political-institutional capacity and its operating efficiency with a view to adapting it to the requirements of implementation of the land actions provided for herein, in accordance with the timetable that follows as from the date of signature of this agreement.

I - To undertake, within the term of 5 (five) months, a study to orient any future changes in the (OET), dealing with such subjects as: structural rank, statutes and internal organization plan, general administrative, financial, accounting and personnel systems, monitoring systems, establishment of central and regional structures, as defined in Annex C, problems relating to financing its activities, and capacity to generate its own resources and recover its costs.

II - To implement, within the term of 12 (twelve) months, the recommendations of such a study;

III - To undertake within the term of 12 (twelve) months, a study and any required revision of state agrarian laws for the purpose of making them compatible with federal laws and the objectives of the PDSFN and of the PAPP.

FOURTH PARAGRAPH - The State agrees to recruit personnel for the OET as defined in the Thirteenth Paragraph of the Sixth Clause as well as to establish a wage policy compatible with the technical requirements of the PDSFN. Similarly, it agrees to make all necessary adjustments in the organizational structure of the (OET) and to adapt it to the type and size of technical staff required for implementation of the tasks of the PDSFN.

FIFTH PARAGRAPH - INCRA agrees to transfer to the State, under the framework of this project, the resources to finance the compensation, limited to the parameters set out in Annex B, for the employees defined in Annex C, and in accordance with a program (and timetable) of recruitment set out in Annex D. The State agrees to assume the difference between actual wages in excess of the parameters established in Annex B as well as the difference between these parameters and the declining financing discussed in the Sixth Paragraph. However, if wages paid by the State were lower than the established parameters, this would not justify the employment of a larger number of staff, and the declining financing would apply to the actual wages paid.

SIXTH PARAGRAPH - This transfer of resources shall be done in accordance with the different categories of tasks to be carried out and the scheme of declining allocation set out in Annex E.

SEVENTH PARAGRAPH - Staff members not directly involved in project activities or responsible for activities not financed by it may not be financed out of the resources of the project.

EIGHTH PARAGRAPH - The State shall seek the cooperation of the judicial branch of government for good performance of the proposed land actions, and shall also propose to it, in common agreement with INCRA and the (OET), measures to modernize the practices of registering rural real properties, pursuant to the provisions of the Sole Paragraph, item III, of Article 176 of Law No. 6.015 of December 31, 1973, as well as offering and organizing, through the (OET), with the support of INCRA, training courses and meetings for personnel of the judicial branch (judges, government attorneys, lawyers, registry officials), and members of rural labor organizations.

NINTH PARAGRAPH - The State and INCRA agree to undertake, within the term of two years, as from the date of signature of this agreement, a study of all federal and state laws relating to the activities of identifying private properties, adjudication of public lands and establishment and maintenance of the cadastres provided for in the PDSFN, to give their opinions of the recommendations of this study and, if necessary, to propose any amendments to those laws.

TENTH PARAGRAPH - The State shall encourage representative organizations of small producers and workers who are the beneficiaries of the state PAPP to participate in the process of executing its land actions.

ELEVENTH PARAGRAPH - When requested by the State, INCRA may assign members of its technical staff to support and strengthen the (OET) during the effective period of this agreement, in conformity with applicable law.

TWELFTH PARAGRAPH - INCRA, with the support of SUDENE, shall ensure technical-administrative advisory assistance and offer and support training courses and activities for the purpose of giving regular and/or refresher instruction to personnel of the (OET) in activities and tasks arising from signature of this agreement, in accordance with the objectives set out in Annex D.

THIRTEENTH PARAGRAPH - The State agrees to recruit personnel for the (OET), when necessary, through a selection process to be defined by the State.

Land Adjudication

SEVENTH CLAUSE - Land adjudication actions shall be undertaken by means of:

I - Graphic and literal identification of the terms of possession and use of land by all its occupants;

II - Adjudication of public lands;

III - Guidance for all cases that require legal resolution;

IV - Establishment of a cadastre of all real properties, with simultaneous entry in the data bank.

FIRST PARAGRAPH - The State shall carry out the following in the process of land adjudication:

I - Furnish full public information about implementation of the land adjudication actions, with a view to clarifying the objectives of such actions, and securing the cooperation, participation and involvement of all interested parties;

II - Take possession of all unoccupied public lands, lands improperly occupied for any reason, areas conveyed by the State with a view to implementing special incentive projects that have not been effectively implemented within the terms set out in the document of conveyance and the surplus of legally titled lands whose boundaries have been improperly marked.

SECOND PARAGRAPH - The process of allocation of state public lands shall be carried out with a view to serving the objectives of the PAPP, in conformity with applicable law.

THIRD PARAGRAPH - In allocating state public lands, individual family property ownership as well as condominium and mixed ownership systems shall be permitted.

FOURTH PARAGRAPH - For the conveyance of lands obtained by either expropriation on grounds of social interest or purchase transaction, and of lands heretofore incorporated into the property of the State, the beneficiary shall be charged a price equal to the value set in an assessment report prepared by the (OET), which, in the case of expropriation, would have to be approved by INCRA. If the conveyance is financed, the interest payments and currency indexation to be charged shall be the same as the rates in effect, at the time of the conveyance, for rural credit transactions involving small producers. For conveyances of public lands occupied by squatters, the values, terms and conditions set out in current state law shall apply.

FIFTH PARAGRAPH - INCRA shall furnish the State cadastral data for land adjudication action and shall execute, if requested by the State, the work of microfilming the books of the land registries located in the areas of action of the PDSFN and shall furnish the State copies of the processed microfilms.

SIXTH PARAGRAPH - INCRA shall contract, by means of public competitive bidding, firms specialized in execution of photogrammetrical survey services and basic cartography for the objective of identifying, measuring and demarcating lands. Supervision and follow-up are the responsibility of INCRA. All products of services contracted and received by INCRA shall be transferred to the State, which shall take all necessary measures to preserve these products.

SEVENTH PARAGRAPH - The identifying and demarcating activities to which the preceding paragraph refers are the responsibility of the (OET) which may engage directly, or through INCRA, the services of third parties for partial execution of this work, being agreed that the (OET) shall assume gradually larger responsibility for such tasks, in accordance with the timetable set out in Annex D. Supervision and follow-up shall be the responsibility of the (OET) when such services are contracted.

EIGHTH PARAGRAPH - In the event the State engages the services of third parties for the identification and demarcation work, under the terms set out in the preceding paragraph, the (OET) shall strengthen the staff of the Land Adjudication Teams with a view to meeting only the needs of supervision and training of its own staff.

NINTH PARAGRAPH - The initial costs of identification and demarcation shall not be charged to the beneficiaries of the project.

Cadastre

EIGHTH CLAUSE - The development of the technical cadastre and data bank (hereinafter called cadastre) to which the FIRST CLAUSE refers shall have the following objectives:

I - Supporting and facilitating the process of land reorganization and adjudication of public lands;

II - Systematic updating of land data;

III - Production of essential elements for the establishment of rural real property transfer documents and the attendant entry in the public registry in the manner provided for in Article 176, Sole Paragraph, item III, of Law No. 6.015 of December 31, 1973;

IV - Guiding the State in preparing and implementing its development actions;

V - Serving as the basic record for tax assessment purposes;

VI - Furnishing, upon payment, to private interested parties, individual plats, formal descriptions and other data gathered for the cadastre which may be made public.

FIRST PARAGRAPH - The cadastre shall have, without prejudice to any additions to which the parties may agree, the components described in Annex F. These components shall include:

I - Basic cartographic data;

II - Graphic data taken from identification and cadastral recording of all parcels;

III - Literal and graphic data which shall be gathered systematically during the identification process;

IV - Literal and graphic data of a physical nature produced by supplementary studies;

V - Literal and graphic data produced by the processing of the basic data.

SECOND PARAGRAPH - The basic cartographic data shall be furnished by the photogrammetrical survey firms specifically contracted by INCRA. INCRA shall be responsible for preparing the formatting of the graphic data and the presentation of the cartographic documents, with a view to making the state cadastres compatible with the cadastres of other states.

THIRD PARAGRAPH - The graphic data produced in the land identification and the cadastral recording shall be digitalized directly by the (OET), using equipment to be furnished by the project or by private firms engaged for this purpose by the (OET). In both cases INCRA shall be responsible for defining the format of the data with a view to ensuring compatibility of state cadastral records.

FOURTH PARAGRAPH - For the purpose of making the cadastral records of the states compatible and making these cadastres compatible with the national cadastre, INCRA shall be responsible for preparing the questionnaires necessary for gathering the literal data during the identification and cadastral recording phase, for formatting the data and developing the data processing system. The data shall be prepared for processing directly by the (OET), using equipment to be furnished by the project or by the specialized state firm engaged in data processing, to be contracted by the (OET). The (OET) shall assume full responsibility for keeping the cadastre current.

FIFTH PARAGRAPH - The literal and graphic supplementary data of a physical nature which may be necessary for a land restructuring program (either redistribution or reallocation) shall be gathered by the division responsible for land restructuring activities of the (OET), with the assistance, if required, of specialized personnel hired temporarily for this purpose. These data shall be prepared for data processing by the (OET), in accordance with the terms set out in the THIRD PARAGRAPH.

SIXTH PARAGRAPH - The computer programs used to produce the figures of the national cadastre shall be written by INCRA so that the final format is standardized. Computer programs in which only the State is interested may be written by data processing department personnel of the (OET).

SEVENTH PARAGRAPH - The (OET) shall be responsible for processing and updating cadastral data by establishing microregional land units (Nuclei) which, in coordination with the land registry system, shall keep a record of any changes that occur in the land system and of any changes in the topographic file.

EIGHTH PARAGRAPH - The (OET) shall furnish INCRA a copy (on magnetic tape, disk or other data processing record) of all the cadastral data required to establish the national cadastre and of all changes, alterations and updatings of the aforementioned cadastral data, at intervals to be defined by INCRA.

NINTH PARAGRAPH - In areas where the land adjudication has already been done under the auspices of other projects, the (OET) shall carry out, as from the fourth year of effect of this agreement, the work of incorporating the graphic and literal data of such projects into the cadastral data bank of the State:

I - The graphic data supported by the national geodetic network would be incorporated by using pre-existing data prepared for processing or the numerical data contained in the formal descriptions;

II - The (OET) shall use photogrammetrical procedures to convert data referenced to a local system;

III - The new photogrammetric coverage that will be necessary in all cases for proper updatings and later supplementary studies and related maps shall be furnished by INCRA, provided that resources for this purpose are available;

IV - The (OET) shall establish a file of literal data by preparing for processing the data of the inquiry forms of such projects and other data obtained, if necessary, through supplementary field surveys.

TENTH PARAGRAPH - The term of 2 (two) years is hereby stipulated for implementation of the cadastre at the state level, and 3 (three) years for the establishment of a system to incorporate the present cadastral system of INCRA into the cadastres proposed by the project and the data to be generated by the State.

ELEVENTH PARAGRAPH - The (OET) shall furnish to the land registries, at intervals to be defined, copies of the following documents:

I - A formal description and individual plat of each parcel of land in the jurisdiction of each judicial district;

II - Its title;

III - Cadastral maps of the municipalities in the area of jurisdiction of each judicial district and of adjacent municipalities;

IV - List of parcels in the municipalities of the judicial district and of adjacent lands;

V - List of land owners in the municipalities of the judicial district and of adjacent lands.

Land Redistribution

NINTH CLAUSE - Land redistribution actions, either by means of allocation of state public lands, purchase transaction mechanisms or expropriation, shall benefit agricultural workers (wage earners) and other landless farmers (renters, share-croppers, tenant farmers, salaried workers and others).

FIRST PARAGRAPH - The process of identifying lands for purposes of redistribution shall be done simultaneously with implementation of the land adjudication actions described in the SEVENTH CLAUSE, in accordance with the following system:

I - The preselection of prospective areas obtainable for purposes of redistribution shall be done by the (OET), on the basis of available cartographic material, using photointerpretation;

II - The listing of such preselected areas shall be forwarded to the Land Adjudication Teams to obtain additional information and to develop a file on each of the preselected areas;

III - The (OET) shall analyze the material produced by the Land Adjudication Teams, supplement the evaluation of the preselected properties and convene a joint committee composed of representatives of the State (the technical unit of the PAPP and the Regional Unit of the OET) which, with the participation of a representative of INCRA, shall proceed to select the areas most suited for procurement. The joint committee may request additional information and evaluations whenever it considers them necessary;

IV - The joint committee shall submit to the State Lands Council, by writing, the list of prospective areas for procurement and all relevant data on each of the areas;

V - The State Lands Council shall review the viability of the proposals and shall suggest, if necessary, the type of instrument to be used (purchase or expropriation);

VI - The State Land Council shall forward to INCRA/Brasilia, for information purposes, a summary of all the proposals approved at that level;

VII - In the event the council suggests the expropriation instrument be used, the proceedings shall be forwarded to the governor of the State. After the term of 30 (thirty) days has passed and if no decision has been taken, INCRA shall be responsible for deciding on the advisability of the action;

VIII - In the event the council rules in favor of purchase of the property, the negotiation with the owner shall be conducted by representatives of INCRA and of the (OET) who shall request from the owner a statement of confirmation or promise to sell, which statement shall be added to the file of the proceeding which, after proper instructions, shall be forwarded to INCRA, if INCRA is to be the buyer, or to the State Land Fund, so that the procedures required for final approval may be taken.

IX - In all cases, the requests and suggestions of local organizations of beneficiaries and of the regional units of the PAPP shall be given due consideration.

SECOND PARAGRAPH - The physical planning of the areas acquired, either by purchase or expropriation, the selection and settlement of the beneficiaries, and the temporary administration of these areas until such time as they are conveyed to the beneficiaries shall be executed by the (OET), with the support of INCRA, and the participation of the Administration of the PAPP and the beneficiaries; the provision of services and investments, roads included, in support of production shall be the responsibility of the State, under the framework of the PAPP.

THIRD PARAGRAPH - It is hereby established that expropriation on the grounds of social interest shall be the preferred instrument for procuring lands for purposes of redistribution and that procurement by purchase shall be undertaken only when it is impossible to use the expropriation mechanism.

FOURTH PARAGRAPH - If it is decided to use the instrument of expropriation on the grounds of social interest, a preliminary attempt shall be made to reach agreement with the owner and to negotiate payment for the land and its improvements in TDA.

FIFTH PARAGRAPH - Acquisition by means of purchase shall be accepted in areas other than those described in item I of the FIRST PARAGRAPH with a view to exercising, in particular, the right of preference.

Legal Assistance to Small Producers

TENTH CLAUSE - The component of legal assistance to small producers shall be directed toward serving the needs of small producers in matters of labor relations, possession and use of land, legitimation of possession, regular and special usucapion and others. Its objective shall be to support rural worker labor unions in the area of legal assistance for members by engaging the services of attorneys and trainees to provide services to these members.

FIRST PARAGRAPH - The technical unit of the state PAPP shall be responsible for proposing the operational directives for implementation of this component and shall take responsibility for arranging the necessary agreements with the labor organizations.

SECOND PARAGRAPH - Resources for implementation of this component shall be allocated, with the approval of SUDENE, directly to the state PAPP, and the State shall be responsible for following up the implementation of this component.

Land Reallocation

ELEVENTH CLAUSE - The land reallocation actions shall have the objective of correcting discrepancies in the possession and use of land caused by high concentration of small farms or very small holdings in areas of public or private domain by enlarging the physical area of the aforementioned properties.

FIRST PARAGRAPH - The need to implement land reallocation actions shall be identified during the course of the land adjudication procedure. The lands needed to enlarge the extremely smallholdings that are identified shall be procured from areas in the vicinity, either public or private, by means of appropriate instruments provided for in this agreement.

SECOND PARAGRAPH - It shall be the responsibility of the (OET), with the support of the UTPNE:

I - To select priority small farm areas which shall undergo reallocation action;

II - Use cadastral data to define the boundaries of the area of action and identify and describe the target population and their economic and productive conditions;

III - Support the participation of the target population in identifying land reallocation alternatives;

VI - Plan and implement the reallocation process with the support of INCRA.

Titling

TWELFTH CLAUSE - Titling shall occur in cases of land adjudication, redistribution and reallocation, in the following fashion:

I - The formal description, the individual plat and the title shall be issued by the (OET) on the basis of the cadastral data;

II - The title shall be signed by the State and by INCRA jointly;

III - The title shall be guaranteed by the grantor.

FIRST PARAGRAPH - When the area is considered of value for preservation purposes or if it entails large public investment, grants of real right of use may be adopted in the titling procedure, in which case the State shall retain ownership, as provided for in Decree-Law No. 271, of February 28, 1967.

SECOND PARAGRAPH - In cases of areas operated jointly by groups of rural producers, the titling may be done in condominium (division into equal shares) or through the instrument of real right of use in the form of condominium or co-use.

THIRD PARAGRAPH - Wherever possible, and within the limits set by current rules, the title may not contain any restrictive covenants.

FOURTH PARAGRAPH - In areas that require land adjudication and reallocation, the following titling criteria shall be adopted:

I - Owners who are the holders of legitimate titles shall be issued titles of acknowledgment;

II - In cases of legitimation of possession or acknowledgement of special usucapion, corresponding federal and state laws would apply.

III - Definitive titles will be granted to the beneficiaries of redistribution or reallocation, except for beneficiaries of real right of use.

III. ADMINISTRATION

THIRTEENTH CLAUSE - The specific administrative responsibilities of the signatory agencies of this agreement shall be those specified below.

FIRST PARAGRAPH - As part of its responsibility to implement the activities reserved for it herein, the (OET) shall:

I - Support INCRA personnel in following up and inspecting the services that have been contracted by INCRA on behalf of the State;

II - Open a special account, in an official bank, for receipt of the resources to be used by the project, which account shall identify resources by source;

III - Establish separate accounting systems for the resources allocated to the project and render accounts to INCRA of all financial resources transferred to it, on forms prepared by INCRA, which enable unmistakable identification of all transactions and expenditures, by item of expenditure, especially those relating to the payment sheet;

IV - Establish and implement a physical and financial monitoring or follow-up system compatible with the system defined by INCRA;

V - Furnish technical, administrative and financial information to all levels of authority responsible for evaluation of the land actions and of the PAPP, and to any external financial agents who finance the aforementioned projects;

VI - Abide by any technical standards recommended by INCRA;

VII - Follow strictly the rules and procedures set out in state laws and Decree Law 200 of February 25, 1967, for acquisition of goods and services, as well as any other demands arising from signature, by the Brazilian government, of agreements with international financial agents;

SECOND PARAGRAPH - The State commits itself to have the (OET) continuously adopt measures that make for more efficient planning and implementation of its tasks.

THIRD PARAGRAPH - In order to achieve the objectives set out herein, INCRA shall have the following duties:

I - Be responsible for the central administration of the PDSFN;

II - Analyze and consolidate, with the support of SUDENE, the Annual Operating Programs;

III - Prepare a monitoring system, within the term of 90 (ninety) days, as from the date of signature of this agreement, and support the State in implementing it;

IV - Establish with the State a technical assistance and training program, organize it and take responsibility for implementing it, and use external consultants whenever necessary. This technical assistance shall be given both in technical matters and administration methods;

V - Study with the State and implement changes in regulations and procedures that help to decrease the time and cost of executing the project;

VI - Contract the evaluation of the operations of the land project and of the institutional development of the National Land System in the Northeast, and ensure the necessary coordination between this evaluation and that done by SUDENE to measure the impact of all the land and rural development operations;

VII - Negotiate all loan agreements for the project with international agencies, after notifying the State of their terms and conditions;

VIII - Participate in the preparation of the frame of reference through which the land POA shall be coordinated with the POA of the state PAPP;

IX - Inform the State of the characteristics, conditions and costs of the goods and services acquired by it on behalf of the State.

FOURTH PARAGRAPH - INCRA shall be responsible for approving statements of accounts, and this approval for a given quarter shall be a condition for transfer of resources for the second quarter following the one to which the data refer.

FIFTH PARAGRAPH - INCRA shall be further responsible for:

I - Monitoring, inspecting and receiving the services contracted with photogrammetric survey firms;

II - Furnishing the State a copy of the technical material produced by the aforementioned photogrammetric survey services;

III - Acquiring and/or expropriating legally titled areas which were selected in the process of land adjudication by the State with a view to land redistribution and reallocation;

IV - Supervising the implementation and maintenance of the cadastral system.

SIXTH PARAGRAPH - SUDENE, through the SDR, shall be responsible for:

I - Consolidating, at the regional level, and in cooperation with INCRA-DI, the multi-annual planning (both physical and financial) of the land actions, and guaranteeing their integration with all other actions of the PAPP and other programs of the Northeast Project;

II - Supporting INCRA in the training activities for employees involved in the land action within the framework of the Project;

III - Supporting INCRA in the preparation effort discussed in item VIII, THIRD PARAGRAPH, of the THIRTEENTH CLAUSE;

IV - Developing, within a term of one year as from the date of signature of this agreement, a system for evaluating the impact of the land action on the

target population, both in and out of the areas served by other activities of the PAPP, including among other goals, interviews with representative institutions and organizations of that population, supplemented by detailed and representative sampling surveys of the most typical situations, in order to improve the design and implementation of later activities.

FOURTEENTH CLAUSE - Without prejudice to the operational, administrative and financial autonomy of the signatory organs, ministerial supervision and inspection can be implemented through central administrative units.

IV. FINAL PROVISIONS

FIFTEENTH CLAUSE - The draft of this instrument was approved by the Board of Directors of INCRA, at its meeting, held on the seventh day of January, 1985, consonant with Resolution No. , of , 198 .

SIXTEENTH CLAUSE - The term of effect of this agreement shall be 5 (five) years, as from the date of its publication in the Official Gazette of the Union, and the agreement shall also be published in the Official Gazette of the State; it is hereby noted that the annual programs shall be the subject of addenda to this Agreement.

SEVENTEENTH CLAUSE - The courts of Brasilia, DF, are hereby designated as the forum to settle any questions arising from execution of this agreement which are not resolved by administrative means.

Being so agreed, the parties signed the present agreement, in ten (10) copies of equal tenor and form, before the witnesses signed below, for all legitimate effects of law.

Brasilia, DF, January 1985

Claudio Jose Ribeiro
Acting President of INCRA

Governor of the State

Superintendent of SUDENE

Witnesses:

YEARLY COSTS OF PHOTOGRAMMETRIC OPERATIONS
(US\$'000)

States	State Area Km ²	Map Scale ^{1/}	Program of Operations									
			Year 0		Year 1		Year 2		Year 3		Total	
			Area Km ²	Cost	Area Km ²	Cost	Area Km ²	Cost	Area Km ²	Cost	Area Km ²	Cost
Alagoas	27,652	1:5,000	8,734	2,238	5,341	2,403	3,790	1,705	9,788	4,405	27,653	10,752
Bahia	559,951	1:10,000	16,000	895	40,578	5,478	22,204	2,998	22,297	3,010	101,079	12,381
		1:20,000	-	-	12,078	543	8,049	362	20,492	922	40,619	1,828
Ceara	146,817	1:10,000	13,908	1,212	34,011	4,591	10,975	1,482	5,889	795	64,783	8,080
Maranhao	324,616	1:10,000	-	-	-	-	41,326	5,579	-	-	41,326	5,579
		1:20,000	-	-	25,000	1,125	-	-	-	-	25,000	1,125
Minas Gerais	120,694	1:10,000	6,756	605	15,145	2,045	8,141	1,099	10,759	1,452	40,801	5,201
Paraiba	56,372	1:10,000	11,017	1,038	2,025	273	12,813	1,730	-	-	25,855	3,041
Pernambuco	98,281	1:5,000	-	-	3,779	1,701	1,696	763	-	-	5,475	2,464
		1:10,000	22,286	1,960	12,746	1,721	5,739	775	8,679	1,172	49,450	5,627
Piaui	250,934	1:10,000	13,981	1,240	49,747 ^{2/}	6,716	20,434	2,759	10,277	1,387	94,439	12,102
Rio Grande do Norte	53,015	1:5,000	-	-	1,356	610	-	-	-	-	1,356	610
		1:10,000	6,090	543	7,568	1,022	4,522	610	-	-	18,180	2,175
Sergipe	21,994	1:5,000	6,289	2,292	-	-	-	-	5,661	2,548	11,950	4,839
		1:10,000	-	-	10,044	1,356	-	-	-	-	10,044	1,356
Total	1,660,326		105,061	12,023	219,418	29,584	139,689	19,862	93,842	15,691	558,010	77,160
% of Regional Area			6%		13%		8%		6%		33%	

^{1/} Map scale is three times larger than corresponding aerial photography, except for some areas photographed during year 0 where this ratio is 4:1.

^{2/} Including 11,055 km² for which only ground control and orthophotomap production are required.

CADASTRAL OPERATIONS PROGRAM

	Year 0				Year 1				Year 2				Year 3				Total (+)	
	Area (km ²)	Plots (1,000)	PF's (*)	Regional Units	Area (km ²)	Plots (1,000)	PF's	Regional Units	Area (km ²)	Plots (1,000)	PF's	Regional Units	Area (km ²)	Plots (1,000)	PF's	Regional Units	Area (km ²)	Plots (1,000)
Alagoas	-	-	2	-	3,692	28	2	2**	4,275	14	1	3	3,519	15	1	4	11,486	57
Bahia	2,659	5	2	-	13,747	36	3	1	31,515	60	7	5	35,951	66	7	7	83,872	167
Ceara	1,893	7	(1)	-	11,116	22	5	-	14,992	36	7	-	15,469	32	7	1	43,470	97
Maranhao	-	-	-	-	-	-	-	-	-	-	-	-	15,000	30	5	5	15,000	30
Minas Gerais	-	-	1	-	6,080	5	1	-	9,730	5	1	1	11,228	8	2	2	27,038	18
Paraiba	635	1	1	-	4,748	11	3	2**	4,585	13	3	2	5,169	13	3	5	15,137	38
Pernambuco	-	-	2	-	7,467	30	3	3**	13,834	48	5	5	10,881	41	4	8	32,182	119
Piaui	500	2	1	-	20,324	35	6	-	23,202	34	4	2	20,081	33	6	3	64,107	104
Rio Grande do Norte	-	-	1	-	3,319	4	1	-	4,229	12	3	-	5,522	12	4	-	13,070	28
Sergipe	-	-	-	-	2,211	12	1	1**	1,553	12	1	1	2,253	13	1	2	6,017	37
Total	5,687	15	10	-	72,704	183	24	9	107,915	234	32	19	125,073	263	40	37	311,379	695

(*) The PFs in the States of Minas Gerais and Rio Grande do Norte, in Year 0, would be recruited for staff training purposes. Those of the States of Alagoas and Pernambuco would be established to allow transition from present to new technology. The PF of Ceara, in Year 0, would be financed with funds from the State PAPP.

(**) Regional units (Alagoas, Paraiba, Pernambuco, Sergipe) to be established in areas adjudicated under previous projects.

(+) Individual agreements with each state also show Year 4 operations (not financed by the project) which would follow on photogrammetry operations financed by this project.

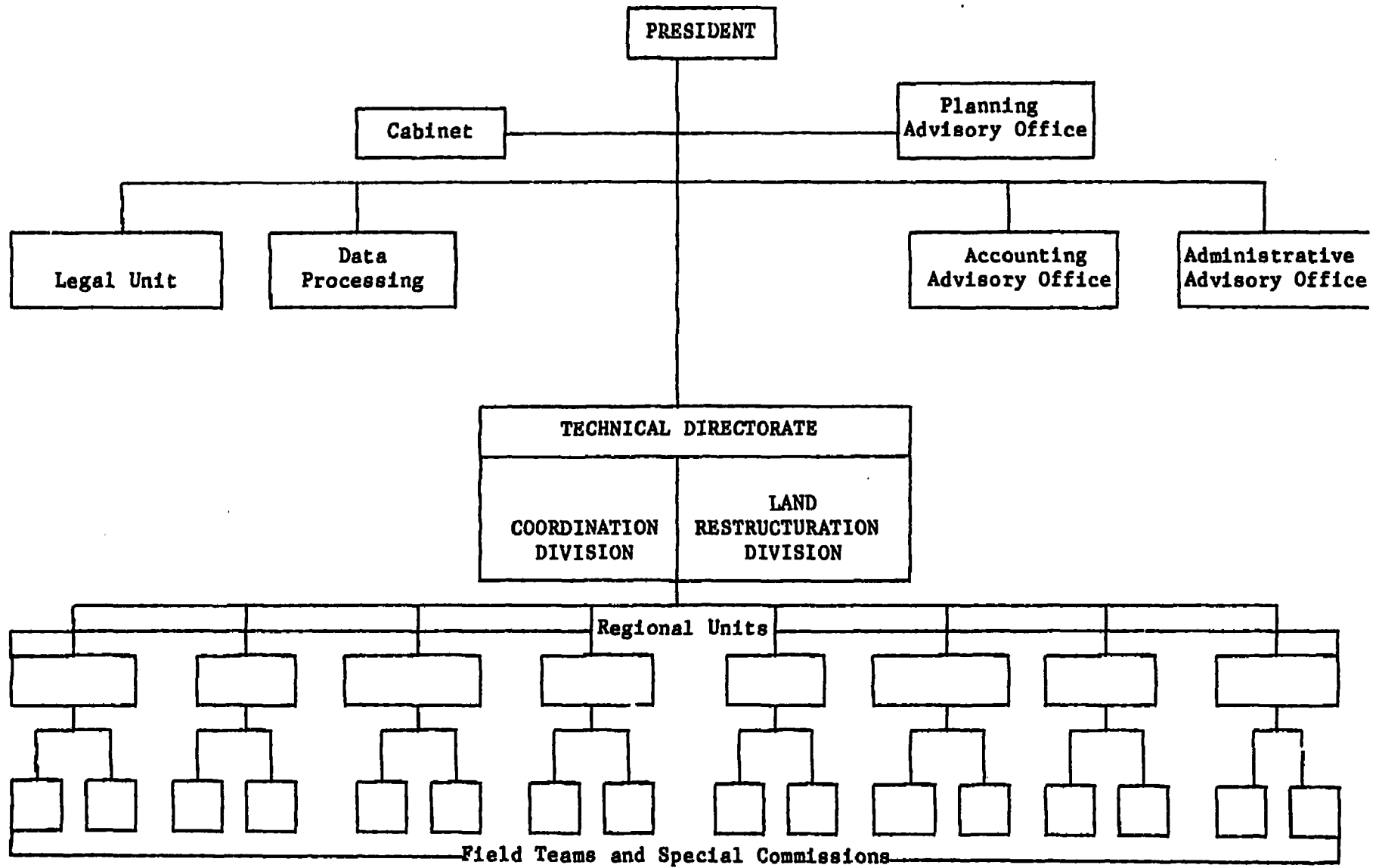
PARAMETERS OF REMUNERATION OF STATE LAND INSTITUTE STAFF ^{1/}
(Cr\$ '000)

Designation	Minimum Monthly Salary	Average Monthly Salary	13th Salary	Social Charges	Total Monthly Salary	
					Cr\$ '000	^{2/} in US \$
President						1,440
Attorney General						1,440
Analyst	2,000	2,442	203	871	3,516	1,375
Programmer	1,500	1,831	153	653	2,637	1,030
Agronomist (Engineer)	1,420	1,733	144	618	2,495	975
Cartographer	1,420	1,733	144	618	2,495	975
Lawyer	1,420	1,733	144	618	2,495	975
Statistician	1,420	1,733	144	618	2,495	975
Advisor	1,420	1,733	144	618	2,495	975
Librarian	1,420	1,733	144	618	2,495	975
Data processing operator	800	1,234	103	440	1,777	695
Topographer-Photo Interpreter	640	782	65	279	1,126	440
Technician in agriculture	640	782	65	279	1,126	440
Secretary	640	782	65	279	1,126	440
Draftsman	640	782	65	279	1,126	440
Technician in accountancy	640	782	65	279	1,126	440
Storeman	640	782	65	279	1,126	440
Research assistant	640	782	65	279	1,126	440
Typist	501	612	51	218	881	345
Receptionist	501	612	51	218	881	345
Administrative assistant	384	469	39	167	675	265
Driver	384	469	39	167	675	265
Messenger	334	408	34	145	587	230
Attendant	334	408	34	145	587	230
<u>SPECIAL ALLOWANCES</u>						
President		1,120	93	400	1,613	630
Executive Secretary		857	71	306	1,234	485
Attorney General		857	71	306	1,234	485
Technical Director		857	71	306	1,234	485
Cabinet Chief		725	60	255	1,040	410
Managing Director		725	60	255	1,040	410
Adviser		725	60	255	1,040	410
Division Chief		725	60	255	1,040	410
Chief of regional unit		725	60	255	1,040	410
Secretary (in central office)		87	7	31	125	50
Lawyer (in special commission)		167	14	59	240	95
Agronomist (in special comm.)		127	11	45	183	75
Assistant (in special comm.)		67	5	24	96	40

^{1/} To be periodically updated to reflect inflation and market demand changes.

^{2/} US\$1 = Cr\$ 2,562 (October 31, 1984)

PROPOSED SAMPLE ORGANIZATION CHART OF STATE LAND INSTITUTES



STRUCTURE OF STATE LAND INSTITUTES
INDICATIVE LIST OF HEADQUARTERS PERSONNEL

	Alagoas	Bahia	Ceara	Maranhao	Minas Gerais	Paraiba	Pernambuco	Para.ri	Rio Grande do Norte	Sergipe	Total
President *	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
<u>Cabinet</u>	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(30)
Advisor *	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
Secretary *	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
Driver *	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
<u>Planning Advisory Office</u>	(6)	(9)	(6)	(9)	(6)	(6)	(6)	(9)	(6)	(6)	(69)
Executive Secretary *	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
Advisor	(1)	(2)	(1)	(2)	(1)	(1)	(1)	(2)	(1)	(1)	(13)
Secretary/Adm. Assist.	(2)	(3)	(2)	(3)	(2)	(2)	(2)	(3)	(2)	(2)	(23)
Driver	(1)	(2)	(1)	(2)	(1)	(1)	(1)	(2)	(1)	(1)	(13)
Attendant	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
<u>Legal Counsel</u>	(7)	(16)	(10)	(10)	(6)	(7)	(10)	(7)	(7)	(6)	(86)
Counsel (chief) *	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
Legal advisor	(2)	(6)	(3)	(4)	(1)	(2)	(3)	(2)	(2)	(1)	(26)
Librarian	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
Administrative assistant	(1)	(4)	(2)	(2)	(1)	(1)	(2)	(1)	(1)	(1)	(16)
Driver	(1)	(3)	(2)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(14)
Attendant	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
<u>Accounting Advisory Office</u>	(5)	(7)	(5)	(7)	(5)	(5)	(5)	(5)	(5)	(5)	(54)
Accounting technician	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
Administrative assistant	(1)	(2)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(12)
Typist	(1)	(2)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(12)
Driver	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
Attendant	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
<u>Administrative Advisory Office</u>	(7)	(16)	(11)	(10)	(7)	(9)	(12)	(9)	(8)	(7)	(96)
Administrative technician	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
Administrative assistant	(1)	(4)	(2)	(3)	(1)	(2)	(3)	(2)	(1)	(1)	(20)
Graphics Operator	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(11)
Telephone operator	(1)	(2)	(2)	(2)	(1)	(2)	(2)	(2)	(2)	(1)	(17)
Typist	(1)	(3)	(2)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(14)
Driver	(1)	(3)	(2)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(14)
Attendant	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)

* Not included in project costs.

() Numbers in parenthesis show staff financed with State counterpart funds exclusively.

	Alagoas	Bahia	Ceara	Maranhao	Minas Gerais	Paraiba	Pernambuco	Piaui	Rio Grande do Norte	Sergipe	Total
<u>Data Processing Division</u>	7	18	11	9	7	9	11	9	7	7	95
Analyst (chief)	1	1	1	1	1	1	1	1	1	1	10
Programmer	1	1	1	1	1	1	1	1	1	1	10
Operator	1	6	3	2	1	2	3	2	1	1	22
Cartographer	1	2	1	1	1	1	1	1	1	1	11
Designer	1	6	3	2	1	2	3	2	1	1	22
Driver	1	1	1	1	1	1	1	1	1	1	10
Attendant	1	1	1	1	1	1	1	1	1	1	10
<u>Technical Directorate</u>	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(30)
Director (agronomist)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
Secretary	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
Driver	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(10)
<u>Division of Coordination</u>	8	22	14	16	7	10	17	10	8	7	119
Agronomist (chief)	1	1	1	1	1	1	1	1	1	1	10
Cartographer - surveyor	1	6	3	4	1	2	4	2	1	1	25
Adm. Assist./Secretary	2	4	2	3	1	2	3	2	2	1	22
Draftsman	1	2	2	2	1	1	2	1	1	1	14
Typist	1	2	2	2	1	1	2	1	1	1	14
Driver	1	6	3	3	1	2	4	2	1	1	24
Attendant	1	1	1	1	1	1	1	1	1	1	10
<u>Division of Land Restructuring</u>	19	92	62	62	28	34	34	46	29	18	424
Agronomist (chief)	1	1	1	1	1	1	1	1	1	1	10
Secretary	1	1	1	1	1	1	1	1	1	1	10
Agronomist/photointerpreter	2	10	6	6	2	3	3	4	2	1	39
Settlement: Administrator	1	9	6	6	2	3	3	4	2	1	37
Agronomist	1	9	6	6	2	3	3	4	2	1	37
Social worker	1	3	2	2	1	1	1	1	1	1	14
Plot design: Agronomist	1	6	4	4	2	2	2	3	2	1	27
Topographer	1	6	4	4	2	2	2	3	2	1	27
Agr. technician	1	6	4	4	2	2	2	3	2	1	27
Draftsman	1	6	4	4	2	2	2	3	2	1	27
Administrative assistant	1	3	2	2	1	1	1	2	1	1	15
Typist	1	3	2	2	1	2	2	3	2	1	19
Driver	5	28	19	19	8	10	10	13	8	5	125
Attendant	1	1	1	1	1	1	1	1	1	1	10
<u>Total</u>	66	187	126	130	73	87	102	102	77	63	1,013

* Not included in project costs.

() Numbers in parenthesis show staff financed with State counterpart funds exclusively.

DYNAMIC STAFF PLANNING OF THE OET

A. HEADQUARTERS STAFF FINANCED BY FEDERAL GOVERNMENT

Map Level	Year	ALAGOAS				BAHIA				CEARA				MARANHAO				MINAS GERAIS				PARAIBA			
		Data Proc.	Land Coord.	Restruct.	Total	Data Proc.	Land Coord.	Restruct.	Total	Data Proc.	Land Coord.	Restruct.	Total	Data Proc.	Land Coord.	Restruct.	Total	Data Proc.	Land Coord.	Restruct.	Total	Data Proc.	Land Coord.	Restruct.	Total
1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unit	1	-	1	1	2	1	1	1	3	1	1	1	3	1	1	1	2	1	1	1	2	1	1	1	2
Chiefs	2	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3
(US\$1,375/mo.)	3	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3
2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	1	-	-	-	-	1	-	-	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Programmers	2	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1
(US\$1,030/mo.)	3	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1
3	0	-	1	5	6	-	6	9	15	-	-	-	-	-	2	8	10	-	-	5	5	-	2	9	11
Higher Level	1	-	1	6	7	-	6	20	26	1	3	16	20	-	2	8	10	-	1	9	10	-	2	12	14
Professionals	2	1	1	6	8	2	6	37	45	1	3	24	28	1	4	16	21	1	1	9	11	1	2	12	15
(US\$975/mo.)	3	1	1	6	8	2	6	37	45	1	3	24	28	1	4	24	29	1	1	9	11	1	2	12	15
4	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Data Proc.	1	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Operators	2	1	-	-	1	6	-	-	6	3	-	-	3	1	-	-	1	1	-	-	1	2	-	-	2
(US\$695/mo.)	3	1	-	-	1	6	-	-	6	3	-	-	3	2	-	-	2	1	-	-	1	2	-	-	2
5	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1
Secretaries	2	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1
(US\$490/mo.)	3	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1
6	0	-	-	3	3	-	2	8	10	-	-	-	-	-	1	6	7	-	1	4	5	-	1	3	6
1	1	-	1	3	4	-	2	9	11	2	2	12	16	-	1	6	7	-	1	6	7	-	1	6	7
Technicians	2	1	1	3	5	6	2	18	26	3	2	12	17	1	2	9	12	1	1	6	8	2	1	6	9
(US\$440/mo.)	3	1	1	3	5	6	2	18	26	3	2	12	17	2	2	12	16	1	1	6	8	2	1	6	9
7	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	1	-	1	1	2	-	2	3	5	-	2	2	4	-	1	2	3	-	1	1	2	-	1	2	3
Assistants	2	-	1	1	2	-	2	3	5	-	2	2	4	-	2	2	4	-	1	1	2	-	1	2	3
(US\$345/mo.)	3	-	1	1	2	-	2	3	5	-	2	2	4	-	2	2	4	-	1	1	2	-	1	2	3
8	0	-	-	-	-	-	-	-	-	-	-	-	-	-	3	5	8	-	2	6	8	-	-	-	-
Adm. Assts.	1	-	3	6	9	-	10	17	27	1	5	8	14	-	3	7	10	-	2	9	11	-	4	11	15
and Drivers	2	1	3	6	10	1	10	31	42	1	5	21	27	1	6	14	21	1	2	9	12	1	4	11	16
(US\$265/mo.)	3	1	3	6	10	1	10	31	42	1	5	21	27	1	6	21	28	1	2	9	12	1	4	11	16
9	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	1	-	1	1	2	-	1	1	2	1	1	1	3	-	1	1	2	-	1	1	2	-	1	1	2
Attendants	2	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3
(US\$230/mo.)	3	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3

Wage Level	Year	PERNAMBUCO				PIAUI				RIO GRANDE DO NORTE				SERGIPE				TOTAL			
		Data				Data				Data				Data				Data			
		Proc.	Coord.	Restruct.	Total	Proc.	Coord.	Restruct.	Total	Proc.	Coord.	Restruct.	Total	Proc.	Coord.	Restruct.	Total	Proc.	Coord.	Restruct.	Total
1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	3	
Unit	1	-	1	1	2	-	1	1	2	-	1	1	2	-	1	1	2	2	10	10	22
Chiefs	2	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3	10	10	10	30
(US \$1,375/mo.)	3	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3	10	10	10	30
2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Programmers	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	2
(US \$1,030/mo.)	2	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	10	-	-	10
	3	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	10	-	-	10
3	0	-	4	3	9	-	1	14	19	-	1	8	9	-	-	1	1	-	17	64	81
Higher Level	1	-	4	8	12	-	2	16	18	-	1	9	10	-	1	5	6	1	23	109	133
Professionals	2	1	4	12	17	1	2	16	19	1	1	9	11	1	1	5	7	11	25	146	182
(US \$975/mo.)	3	1	4	12	17	1	2	16	19	1	1	9	11	1	1	5	7	11	25	154	190
4	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Data Proc.	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1
Operators	2	3	-	-	3	2	-	-	2	1	-	-	1	1	-	-	1	21	-	-	21
(US \$695/mo.)	3	3	-	-	3	2	-	-	2	1	-	-	1	1	-	-	1	22	-	-	22
5	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Secretaries	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	10	10
(US \$490/mo.)	2	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	10	10
	3	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	10	10
6	0	-	-	-	-	-	-	9	9	-	1	3	4	-	-	-	-	-	6	38	44
Technicians	1	-	2	6	8	-	1	9	10	-	1	6	7	-	1	3	4	2	13	66	81
(US \$440/mo.)	2	3	2	6	11	2	1	9	12	1	1	6	8	1	1	3	5	21	14	78	113
	3	3	2	6	11	2	1	9	12	1	1	6	8	1	1	3	5	22	14	81	117
7	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Assistants	1	-	2	2	4	-	1	3	4	-	1	2	3	-	1	1	2	-	13	19	32
(US \$345/mo.)	2	-	2	2	4	-	1	3	4	-	1	2	3	-	1	1	2	-	19	19	33
	3	-	2	2	4	-	1	3	4	-	1	2	3	-	1	1	2	-	14	19	33
8	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	11	16
Adm. Assts.	1	-	7	7	14	-	4	10	14	-	3	9	12	-	2	6	8	1	43	90	134
and Drivers	2	1	7	11	19	1	4	15	20	1	3	9	13	1	2	6	9	10	46	133	189
(US \$265/mo.)	3	1	7	11	19	1	4	15	20	1	3	9	13	1	2	6	9	10	46	140	196
9	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Attendants	1	-	1	1	2	-	1	1	2	-	1	1	2	-	1	1	2	1	10	10	21
(US \$230/mo.)	2	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3	10	10	10	30
	3	1	1	1	3	1	1	1	3	1	1	1	3	1	1	1	3	10	10	10	30

B. Field Staff

	Alagoas	Bahia	Ceara	Maranhao	Minas Gerais	Paraiba	Pernambuco	Piaui	Rio Grande do Norte	Sergipe	Total
<u>PF/Regional Units (1)</u>											
Year: 0	2	2	(1)*	-	1	1	2	1	1	-	10+0
1	2+2	3+1	5+0	-	-	3+2	3+3	6	1	1+1	24+9
2	1+3	7+5	7+0	-	1+1	3+2	5+5	4+2	3	1+1	32+19
3	1+4	7+7	7+1	5+5	2+2	3+5	4+8	6+3	4	1+2	40+35
<u>Special Commission (2)</u>											
Year: 0	12	6	-	-	3	1	2	10	2	-	36
1	12	17	15	-	3	5	14	19	2	6	93
2	7	26	21	-	3	6	22	17	6	6	114
3	8	35	18	19	4	6	20	17	6	6	120
<u>Field Team (3)</u>											
Year: 0	19	10(+)	-	-	7	1	-	21	-	-	58
1	19	17(+)	20	-	7	10	20	41	3	8	145
2	11	27(+)	36	-	6	11	32	46	9	8	186
3	13	40(+)	29	30	10	11	30	40	9	9	191

1/ PFs and Regional Units have, overall, the same staffing, consisting of an agricultural engineer (chief), a lawyer, a topographer/photointerpreter, an agricultural technician, an administrative assistant, a typist, a driver and an attendant. PF staff also include an accounting assistant.

2/ Special Commission staff comprise a lawyer, an agronomist, an administrative assistant and a typist.

3/ Field identification teams consist of a topographer/photointerpreter, an agricultural technician and a driver.

* Not financed by this project.

(+) These figures assume a higher involvement of private firms than in other states.

FEDERAL FINANCING OF OET PERSONNEL

<u>Groups of Personnel</u>	<u>Levels of Financing (% of Actual Wages within limits established in Attachment B)</u>
<u>Category I</u>	
- OET Headquarters staff, President, his Cabinet, Chiefs of Department, and others not specified in Category III.)	Not financed
<u>Category II</u>	
- All field staff of OETs (PF, CE, field teams and regional units) within the limits established in Attachment D	100%
<u>Category III</u>	
- OET Headquarters personnel directly associated with the supervision of the PDSEF and the implementation of the state data banks, within the limits established in Attachment D:	
until March 31, 1986	100%
from April 1, 1986 to March 31, 1987	80%
from April 1, 1987 to March 31, 1988	60%
- idem, hired for the land restructuration division	100%
<u>Category IV</u>	
- Other categories not specified in this annex	Not financed

Components of the Cadastre

1. Basic Cartographic Data

- Copies of original aerial photographs;
- aerial photographic maps, at different scales;
- graphic planimetric line maps;
- magnetic tapes containing planimetric data from line maps;
- lists of coordinates of geodetic points, of stereo preparation points, of aerial triangulation points and densification points of the cadastral system;
- identification charts for preceding points;
- contour level maps on transparent films; and
- magnetic tapes of contour lines and elevation points of all maps.

2. Graphic Data Resulting from Land Identification and Titling

- Coordinates of all cadastral grid points (lot boundaries) with their sequential numbers;
- cadastral grid vectors (all the straight lines made up of points with sequential numbers) and the codification for different types of markers (wooden fence, wire fence, ditch, wall and so forth);
- cadastral grid parcels constituted by the preceding vectors and their numbers (tie to the tapes containing literal data);
- coordination of all the points of the topographic - planimetric system, with their sequential numbers (points that may also be on the cadastral grid);
- topographic - planimetric system, with their sequential numbers (points that may also be on the cadastral grid);
- topographic - planimetric grid vectors, with sequential number and codification of type of marker in the field;
- objects on topographic - planimetric system (roads, forests, fields and so forth), which may also be objects in the cadastral grid;
- coordinates of all the points of the system for soil use purposes; and
- the corresponding objects (zones of classes).

3. Systematically Gathered Literal Data

(To be defined by INCRA)
(Names of villages, places, rivers and so forth)

4. Additional Agro-Economic Literal and Graphic Data

(To be defined by INCRA)

5. Additional Physical, Literal and Graphic Data

- Boundary points of zones (coordinates) of classes of soils and/or zones of classification of water resources and/or ..., etc, with their sequential numbers;
- vectors of the corresponding physical grids, with their sequential numbers (pointers);
- corresponding zones, with codification of each type.

6. Data Produced by Processing

- Descriptive memorandum of each parcel;
- individual plat of each parcel;
- general cadastral plat (on standard forms, by area, municipality, and so forth), at different scales;
- lists of parcels for each municipality, each area, with sequential number for reference, its geographical location (centroid), area, soil classes, all improvements, buildings and name and code of the owner, etc;
- lists of owners in each municipality with reference number, and properties (number, area, soil types, assessment for tax purposes);
- various maps at different scales resulting from combinations of the basic data (land grid, topography, soil classes, water resources, assessment for tax purposes, vegetal cover and so forth); and
- lists, tables, diagrams, and maps showing the results of statistical surveys.

EQUIPMENT LIST AND COSTS
(US\$)

1. Cars:

-	light cars (berline) 80 x 4,500	360,000
-	four wheel drive cars 450 x 8,000	3,600,000
		<hr/>
	Sub total	3,960,000
	rounded to	4,000,000

2. Topographic Equipment:

-	theodolites (type Wild T ₁ /T ₂) with accessories (2 in each central unit, 1 in each microregional unit) — 127 x 5,000	635,000
-	distance meters (type Wild DI20/35) with accessories (2 in each central unit, 1 in each microregional unit) 127 x 10,000	1,270,000
-	plane-tables with accessories (tripod, compass, open sight alidade etc.): 400 x 1800	720,000
-	mirror stereoscope 60 x 1000	60,000
-	pocket stereoscope 460 x 60	27,600
-	pocket computer (type HP25) 460 x 50	23,000
-	measuring tape (50 m) 460 x 50	23,000
-	planimeter (4 in each central unit, 1 in each microregional unit) 147 x 400	58,800
-	binoculars 6 x 30 (1 for each topographer) 400 x 400	160,000
		<hr/>
	Sub total	2,977,400
	rounded to	3,000,000

3. Drawing Equipment

-	lighting tables 80 x 400	32,000
-	accessories 80 x 100	8,000
		<hr/>
	Sub total	40,000
	rounded to	50,000

4. Microfilm Equipment

-	reading/recording machine (2 in each control unit, 1 in each microregional unit) 127 x 4,000	508,000
		rounded to 550,000

5. Data Processing Equipment

-	minicomputer type VAX c/2m bytes	101,422
-	disk Winchester 160 m bytes	15,603
-	2 pack disk 300 m bytes	57,212
-	16 assynchron lines	5,852
-	floating mark	650
-	plotter (Ao)	32,507
-	graphic station	72,816
-	printing unit	12,000
-	8 alphanumerical terminals	20,000

	Base unit cost	318,062
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-	10 basic units	3,180,620
-	12 extra graphic stations	873,792
-	1 extra plotter	32,507
-	freight and insurance	70,000
-	additional software	30,000
-	maintenance and training	1,471,290

	Sub total 5	5,658,209
	rounded to	5,700,000

6. Furniture

-	1600 sets x 2500	4,000,000
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RECAPITULATION

1.	Cars	4,000,000
2.	Topographical equipment	3,000,000
3.	Drawing equipment	50,000
4.	Microfilm equipment	550,000
5.	Data processing equipment	5,700,000
6.	Furniture	4,000,000

	Total	17,300,000
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LAND REDISTRIBUTION TARGETS: AREA
(Km²)

States	Total Area	Year 0			Year 1			Year 2			Year 3			Total		(1)+(2) (%)
		(1)	(2)	Year 0 Total	(1)	(2)	Year 1 Total	(1)	(2)	Year 2 Total	(1)	(2)	Year 3 Total	(1)	(2)	
Alagoas	27,652	-	-	-	-	106	106	109	151	260	160	147	307	269	404	673 4.7%
Bahia	559,951	-	-	-	940	-	940	2,790	574	3,364	3,065	673	3,738	6,795	1,247	8,042 1.4%
Ceara	146,817	28	45	73	594	135	729	1,830	270	2,100	3,145	270	3,415	5,597	720	6,317 4.3%
Maranhao (4)	324,616	-	-	-	900	100	1,000	1,800	200	2,000	2,700	300	3,000	5,400	600	6,000 1.8%
Minas Gerais	120,694	-	-	-	305	10	315	715	20	735	735	35	770	1,755	65	1,820 1.5%
Paraiba	56,372	25	-	25	293	29	322	459	19	478	141	58	199	918	106	1,024 1.8%
Pernambuco	98,281	-	-	-	606	78	684	487	-	487	259	-	259	1,352	78	1,430 1.5%
Piaui (5)	250,934	-	-	-	809	80	889	836	90	926	896	50	946	2,541	220	2,761 1.1%
Rio Grande do Norte	53,015	-	-	-	429	43	472	766	77	843	612	61	673	1,807	181	1,988 3.7%
Sergipe	21,994	-	-	-	60	27	87	133	27	160	240	27	267	433	81	514 2.3%
Total	1,660,326	53	45	98	4,936	608	5,544	9,925	1,428	11,353	11,953	1,621	13,574	26,867	3,702	30,549 1.8%

(1) Land redistribution area in areas adjudicated under this project.

(2) Land redistribution objectives in other areas, mainly previously adjudicated.

(3) Percentage with respect to the total state area.

(4) Estimate.

(5) Excluding 143 km² and 507 km² of land already owned by the state and to be redistributed in years 0 and 1, respectively.

LAND REDISTRIBUTION TARGETS: BENEFICIARIES
(^{'000 families})

States	Total Rural Families in State	Year 0			Year 1			Year 2			Year 3			Total		Total (%)
		(1)	(2)	Year 0 Total	(1)	(2)	Year 1 Total	(1)	(2)	Year 2 Total	(1)	(2)	Year 3 Total	(1)	(2)	
Alagoas	140	-	-	-	-	0.8	0.8	0.7	1.1	1.8	1.1	1.0	2.1	1.8	2.9	4.7 3.4%
Bahia	900	-	-	-	3.9	-	3.9	10.2	2.0	12.2	10.6	2.4	13.0	24.7	4.4	29.1 3.2%
Ceara	350	0.1	0.2	0.3	2.0	0.5	2.5	6.0	0.9	6.9	10.0	0.9	10.9	18.1	2.5	20.6 5.9%
Maranhao	500	-	-	-	3.0	0.4	3.4	6.0	0.6	6.6	9.0	1.0	10.0	18.0	2.0	20.0 4.0%
Minas Gerais	80	-	-	-	0.9	0.1	1.0	2.0	0.2	2.2	2.1	0.4	2.5	5.0	0.7	5.7 7.1%
Paraiba	240	0.3	-	0.3	3.6	0.4	4.0	5.8	0.2	6.0	1.8	0.7	2.5	11.5	1.3	12.8 5.3%
Pernambuco	410	-	-	-	5.1	1.6	6.7	3.3	-	3.3	1.4	-	1.4	9.8	1.6	11.4 2.8%
Piaul	180	-	0.2	0.2	4.0	1.2	5.2	4.2	0.5	4.7	4.5	0.2	4.7	12.7	2.1	14.8 11.4%
Rio Grande do Norte	140	-	-	-	1.4	0.1	1.5	2.5	0.3	2.8	2.0	0.2	2.2	5.9	0.6	6.5 4.6%
Sergipe	100	-	-	-	0.5	0.2	0.7	1.0	0.2	1.2	1.8	0.2	2.0	3.3	0.6	3.9 3.9%
Total	3,040	0.4	0.4	0.8	24.4	5.3	29.7	41.7	6.0	47.7	44.3	7.0	51.3	110.8	18.7	129.5 3.9%

- (1) Land redistribution beneficiaries in areas adjudicated under the project.
 (2) Land redistribution beneficiaries in other areas, mainly previously adjudicated.
 (3) Percentage with respect to the total number of rural families in the state.

BRAZIL

NATIONAL LAND ADMINISTRATION PROGRAM

NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT

Directorate of Integration with States and Territories (DI)

Functions and Composition

A. General Functions

The Directorate of Integration with States and Territories (DI), a unit at the first divisional level of INCRA, is responsible for coordinating activities between INCRA and the states. It is also responsible for providing direct services to INCRA and the states by coordinating and supervising supplementary services to be provided by other units, both in and out of INCRA and for preparing standards and methods for the implementation of the PDSFN. In particular, the DI:

- (a) advises the president on activities relating to its defined area of action;
- (b) prepares and has approved by the Secretariat of Planning and Coordination the rules, operational procedures and systems for execution and control for the activities in its area of competence;
- (c) defines, with the support of the Secretariat of Planning and Coordination and of the DF and the DC, the methodology for preparing and analyzing land and settlement programs and projects to be executed in a cooperative manner by INCRA and the states;
- (d) guides the states in preparing the proposals that entail the execution of activities within the area of responsibilities of the Directorate;
- (e) analyzes, adjusts and consolidates the proposed plans, programs and goals of the states;
- (f) identifies alternative national or international sources of financing for the state proposals;
- (g) furnishes the Secretariat of Planning and Coordination with a budget proposal for INCRA activities with a view to meeting the requests of the states;
- (h) establishes arrangements with other units of INCRA in connection with the activities that are the responsibility of those units in the preparation and execution of the plans, programs and the goals defined in (d) above;

- (f) develops, in conjunction with the state land agencies, training programs whose purpose is to instruct and give ongoing education, both administrative and technical, to staff members involved in the SFN;
- (j) provides, with the support of the different units of INCRA and other federal agencies, assistance to the states in administrative, legal, technical and other fields related to land activities;
- (k) works in conjunction with other units of INCRA with a view towards harmonizing the rules and procedures set out for the monitoring of state programs and projects to be executed in cooperation with INCRA;
- (l) proceeds to record and analyze, with the support, when necessary, of other units of INCRA, the findings and experience stemming from cooperation between INCRA and the states;
- (m) sees to it that the states observe and comply with the commitments contained in the cooperation instruments signed with INCRA; and
- (n) examines the proposals from the states with a view to simplifying administrative procedures improving the efficiency of land operations and proposing any necessary corrective measures.

B. Internal Organization

The internal organization of the DI would be conceived in function of the new division of roles and responsibilities between INCRA and the OETs for land activities.

Under this new division, the OETs are responsible for programming, executing and monitoring on a day-by-day basis the land activities as well as keeping the cadastre of their state. The role of INCRA, through the DI, is to (a) ensure that the OETs receive timely federal funds and that they are furnished the necessary technical and management assistance; (b) monitor the execution of OET programs; and (c) evaluate the progress of their institutional building.

To fulfill correctly the functions assigned to it under this new distribution of work, and subject to the findings of the proposed institutional study (Annex 3), the DI could be subdivided into three major departments (see attached Organization Chart):

- The Policies and Programs Department (DPP)
- The Operations Support Department (DAO)
- The Administrative and Financial Support Department (DAF)

A description of their functions follows.

Policies and Programs Department (DPP)

The DPP would be responsible for coordinating the programming and budgeting activities of various states. It is in the DPP that the programs and budgets of the OET relating to activities executed in cooperation with INCRA would be reviewed for approval; the follow-up of such programs and the evaluation of the institutional progress of the OET would be conducted; and the technical assistance activities of the DI and other directorates to the OET would be programmed. Since the centralizing function is essential, the elements that make it up must necessarily be grouped within a single department. Seven or eight State Program Coordinators would play a pivotal role in the DPP. They must be good at negotiations and at synthesizing, and have previous successful experience in land activities (preferably but not necessarily in land administration). Each coordinator, eventually supported by an assistant, would be in charge of one or two OETs. The functions of the DPP may be subdivided into: (a) annual functions; and (b) ongoing functions.

(a) Annual Functions

1. Annually evaluate state activities: effectiveness of the SFN, its appropriateness to the tasks and institutional progress. Starting with the statistical elements (physical accomplishments and cost data) and comments (both written and verbal) from DAO specialists (for technical and institutional development), the DPP conducts an evaluation of the elements of the SFN (and not of the impact of the activities) and submits it to the state land agencies, the governors, and, in summary form, to the MEAF, and eventually to the Regional Development Agencies.

2. Prepare, convene and activate a Development Policies Commission. This commission shall be composed of representatives of the DPP and DAO and of other directorates (and eventually regional development agencies), and shall work on the basis of the evaluation of the SFN and the evaluation of its impact, which would be separately conducted by SUDENE in the case of the Northeast region.

3. Analyze (eventually with regional agencies) and consolidate, after adjustments, the state proposals for programs and projects, taking into account the earlier accomplishments and the volume of financial and other resources available.

4. Develop from the analyses performed in (3) above the activities program for other directorates of INCRA in agreement with their responsible officers.

5. Develop in accordance with the analyses, the activities of DAO specialists and determine the need for external consultants to provide technical assistance and staff training for the state land agencies.

(b) Ongoing Functions

6. Establish a liaison with the officers of the state land agencies and the regional development agencies involved in the land tenure improvement areas.
7. Ensure a follow-up of field activities and institutional progress of the state land agencies, as well as of the accomplishments of other directorates within the framework of the PDSFN, using for this purpose statistical data provided by the management information systems of the OETs, accounting data and reports of DAO experts.
8. Intervene with State Land Agencies, state governments, DAO and other directorates whenever necessary to reorient or rectify any deviations found in relation to the annual programming.
9. Inform the regional rural development agencies or other institutions whose activities are dependant on land actions of any deviations in executions that cannot be rectified and study with them the necessary adjustments that can be made.
10. Organize and conduct seminars with the support of DAO and eventually other agencies, in which members of different state land agencies are brought together.

Operational Support Department (DAO)

The DAO would be a pool of experts representing the entire body of technical, legal and management disciplines that come together in the OET. These experts would work with the OETs by visiting assistance programs already established jointly by the DI and OETs.

The functions of the DAO would be to:

1. Keep its staff members knowledgeable about technical (from cartography to the data banks), legal and administrative procedures, and the management methods of the OETs, and make sure that this knowledge is made known to and applied by the technical personnel of the OETs.
2. Establish technical standards and procedures to be applied along with the coefficients to be used in budget computations.
3. Engage all necessary consultants and offer regular training to its own personnel.
4. Collaborate with the states through:
 - training activities such as seminars;
 - regular or ad-hoc technical assistance and in-service training; and
 - "self-monitoring" services.

5. Provide reports supported by personal judgments and objective statistical data established by the DPP for the evaluation of the OETs and have the DPP and OETs participate in the evaluation.
6. Prepare bidding documents for the Bidding Commission in its areas of competence, and inspect and accept delivery of resulting works.
7. Participate in the Policies Development Commission.

The experts of the DAO may be subdivided into the three following units:

- (a) Cadastral techniques: aerial photogrammetry, cartography, cadastral data banks;
- (b) Land techniques: land adjudication, titling, relations with land registries and other legal matters; reallocation of land; and settlement;
- (c) Management techniques: analysis of structures and functions, analysis of simplification of tasks, analytical accounting, management by objectives, management of human resources (selection, career systems, incentives).

These experts may be:

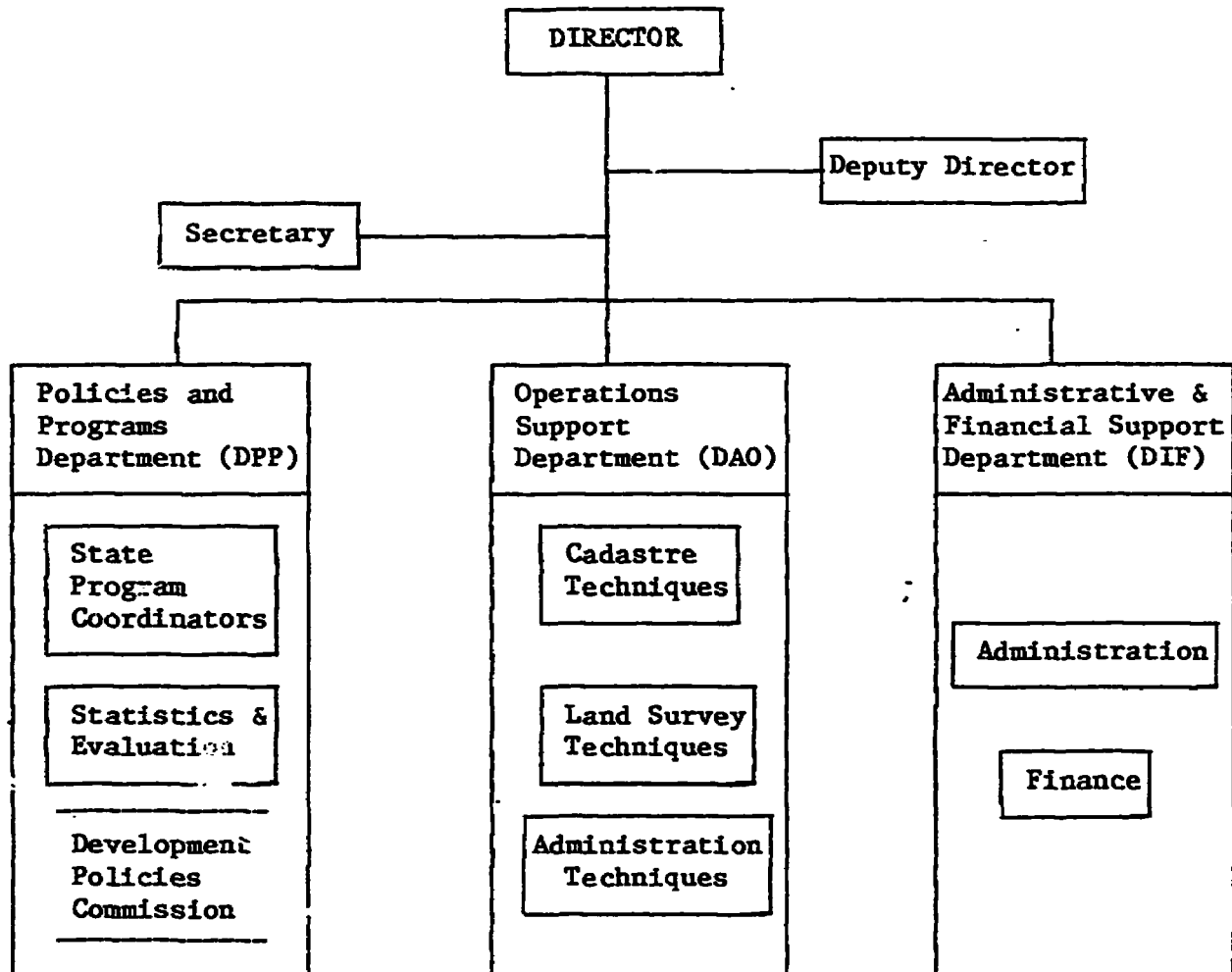
- either permanent employees of the DI; or
- staff members of other directorates of INCRA or other federal or state institutions assigned to the DI for determined periods.

Administrative and Financial Support Department (DIF)

The DIF would be responsible for coordinating, supervising and regulating the activities performed by the DI and for:

- (a) developing, in collaboration with the departments of the Administrative and Financial Directorate, the operational procedures and systems necessary for execution and control of the activities within DI's sphere of activities;
- (b) working with central, regional and state agencies with a view towards complying with the commitments of INCRA set out in cooperation instruments assigned with the states; and
- (c) seeing to it that the criteria, norms, operational procedures and systems established for DI's sphere of activities are observed.

DIRECTORATE OF INTEGRATION OF THE NATIONAL LAND SYSTEM



NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT

A. Purpose of the Action

B. Action Timetable

	<u>Period</u>
Phase 1: Examination and diagnostic study of the situation, and scheduling of the program	2 months
Phase 2: Study of a management system (plus approval)	2+1 months
Phase 3: Improved personnel management methods	2 months
Phase 4: Introduction of management system	2 months
Phase 5: Monitoring	12 months

[illegible]

C. Comments

- (a) The period of eight months allowed for the introduction of the system is binding. Within this deadline, however, the consultant may suggest such changes to the timetable as he considers desirable.
- (b) In order to improve their individual skills and ensure that objectives and constraints peculiar to INCRA are duly taken into account, the consultants will involve DI staff members in the entire sequence of operations described below, both when working with the OETs and during the conception of the system.
- (c) An expert on aerial photogrammetry and cadastral surveying approved by INCRA must be involved in the Phase 2 work or, at the very least, approve the results of such work.

D. Content of Each Phase

Phase 1: Diagnostic Study and Scheduling of the Management Consolidation Program:

- (a) A preliminary study, to be carried out in some of the ten states (about four in all), will focus on the following: (i) the political and administrative status (i.e., hierarchical position) of the OET; (ii) the responsibilities, functions and management tasks assigned to the OET's various organs; (iii) staff skills; (iv) the accounting and monitoring system or systems in use; and (v) the legal requirements, at both the state and federal level, plus the requirements of international financial agencies, in relation to OET operations.
- (b) A second study, to be carried out concurrently with the first, will focus on past INCRA involvement in the management of land operations, the methodology employed and experience gained. Special attention will be paid to management of the IDB-financed land tenure project.
- (c) The diagnostic study resulting from (a) and (b) will identify the major obstacles, both internal and external, present and potential, to progress by the OETs and will outline possible solutions. This study will be submitted to all the senior DI and OET officials concerned and, if necessary, adjusted with them. The action and work program planned for future phases in light of this diagnostic study will also be submitted to these officials and discussed with them.

Phase 2: Study of a Management System:

- (a) The study will recommend the measures deemed necessary at the state level to provide the OETs with the powers needed to carry out their mission.
- (b) Within the OETs, the study will serve to: (i) define clearly the functions and responsibilities, and hence the decision-making process, principally as regards the establishment and monitoring of programs, operating plans and budgets; (ii) prepare a basic data processing system, suitable for computerization, capable of producing the outputs needed at various levels for the OETs' own managements, under state and federal rules governing public bodies, and required by national and international institutions following-up on project management. The systems applied in the OETs should be uniform in structure, so as to permit compilation of national syntheses. Variants may, however, be introduced to take account of special local conditions.
- (c) A study will be made within INCRA on compilation of information derived from the OET systems with a view to consolidating programs and budgets and monitoring and evaluating them at the federal level. An examination will be made to verify that INCRA's organizational structures and procedures are appropriate to this task. The procedures established by INCRA to program and monitor its own actions in the states will likewise be examined, and suggestions for improving these procedures will be put forward.
- (d) The study will also examine links with partners and users of land regularization operations, particularly the technical units operating under the Northeast Program and the land registries, and will propose any measures designed to simplify and systematize these links that would help improve the OETs' working conditions, including updating on the cadastral register.
- (e) Contacts will be established between those responsible for carrying out the present study and the study pertaining to the legislation system, in order to facilitate identification, analysis and (where possible) revision or elimination of measures that unjustifiably hamper land regularization and restructuring operations and the updating of the cadastral register.

Phase 3: Improved Methods of Personnel Selection and Management:

The consultant will be required to assist the OET managers in drafting an overall personnel policy: career planning, financial and other incentives, selection procedures and criteria, etc. Where possible, attempts will be made to harmonize policies and criteria among the various states.

A detailed program for basic and advanced training in management techniques will be drawn up for each state and for each category of personnel (seminars, in-service training, internships at other OETs, and possibly academic training).

In the case of OETs with initially inadequate staffing, efforts will be made in conjunction with the local or regional INCRA offices to study the possibility of transferring INCRA staff with experience that would be useful to the OET in question, subject to additional training, where the presence of these staff members is no longer essential to INCRA.

Where OETs are initially overstaffed in certain categories, a staff reduction plan will be prepared for approval by the state government.

Phases 4 and 5: Introduction and Monitoring of the Methods

The object of these two phases will be to assist the OET managers, initially through intensive support measures that will gradually be spaced further and further apart, in introducing and running the systems designed in the preceding phases.

In these operations, the consultants will gradually withdraw in favor of the INCRA staff members which will have been trained by cooperating in the study and who will later take over responsibility for assisting and monitoring the OETs.

E. Reports to be Provided

- (a) At the end of each of the first three phases, the consultants are to prepare a report summarizing the work performed during the phase in question. A draft version will be submitted to the parties concerned for comments prior to preparation of the final version.

With regard to the Phase 2, the OET managers will have a period of two weeks in which to present their comments, following which the basic system will be finalized.

- (b) At the end of Phase 4, the report will present comments on execution of the phase in question, recommendations for further operations, and the schedule of follow-up activities.
- (c) The final report will comprise comments on execution of the project (favorable and unfavorable factors encountered), a global summing up of the operation, and recommendations for the future.

Each of these reports will be prepared in 40 copies, 20 of which will be for the OETs.

BRAZIL

NATIONAL LAND ADMINISTRATION PROGRAM

NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT

INCRA - Powers of the Directorate of Integration

Draft of Presidential Resolution

Considering that Law No. 7231, of October 23, 1984 provides that the the Directorate of Integration with the States and Territories (DI) "plans, undertakes and controls the activities relating to the National Land Policy Program in the areas of the states";

Considering that pursuant to these provisions, the DI was designated as the agency responsible for the programming and efficient execution of the National Land System Development Project - PDSFN;

Considering that to undertake these responsibilities, the DI shall perform its activities in collaboration with the states on the basis of agreements, and internally within INCRA itself, and act in harmony with the several secretariats, directorates and regional representations of INCRA;

Considering that the agreements signed by INCRA and the states, include, in consideration of the nature of the PDSFN, activities that involve the organ as a whole;

The President of INCRA resolves to approve the following resolution, which shall govern the relationship between the DI and other units of the Institute directly involved in the PDSFN.

Resolution

1. Hereby stipulated that before any decision and/or implementation is taken in connection with any new actions in the Northeast region (including the Minas Gerais region of SUDENE), similar to those described for the PDSFN, all units of the Institute shall coordinate their activities with the DI.
2. In all states where there are currently areas which, under the terms of an agreement, are the objects of land activities on the part of INCRA, the programming of these areas shall be carried out jointly by INCRA and the state and shall aim at transferring the responsibility for the actions in these areas to state jurisdictions.
3. The DI shall prepare an annually revised five-year program (flexible) and the annual operating program for the following year on the basis of state proposals and the budget limits imposed on the PDSFN and on

INCRA, for the purpose of developing a first estimate of its needs of resources and its needs of involvement of other units of the Institute.

4. After discussion and agreement with the units involved, these program shall be submitted to the Secretariat of Planning (PP) which shall analyze them and take all subsequent appropriate measures.
5. During the year, and within the framework of the program approved, the DI shall define as precisely as possible the needs of involvement of other directorates. For each type of involvement, the terms and timetables shall be defined.
6. The DI shall follow up the process of implementation of the actions to be undertaken by the other units of INCRA within the framework of the PDSFN; these units shall furnish the elements that are needed for the accomplishment of this follow-up, and in the event of any deviations in implementation, shall analyze with those units the reasons and possible corrective measures to be taken.
7. The DI shall present every year to the Secretariat of Planning of INCRA the summary of internal activities undertaken within the framework of the PDSFN along with suggestions for improvement or elimination of any difficulties found in the implementation.
8. The DI shall be responsible for acting with the other directorates in pursuance of the following objectives:
 - 8.1 With the DF, to:
 - (i) expedite the process of transfer of PFs currently under the responsibility of INCRA to the State Land Agencies of the States of Maranhao and Pernambuco;
 - (ii) give priority attention to the need within the framework of the PDSFN to secure lands for redistribution by means of expropriation on the grounds of social interest or by purchase transactions;
 - (iii) provide technical support to and, when necessary, assist the actions to be executed by the State Land Agencies;
 - (iv) title, with the states, the areas acquired by any means within the areas of action of the PDSFN;
 - (v) harmonize, in other areas of activity within its responsibility, its methodologies and technologies with those approved for the PDSFN; and

- (vi) unify the cadastre of rural property of the DF with the cadastre data generated by the PDSFN.

8.2 With the DC, to:

- (i) study and review questions pertaining to implementation and updating of the cadastre generated by the actions of the PDSFN, and the need for integration of these data with the rural property cadastre of INCRA; and
- (ii) update the owner declarations in the areas adjudicated and/or recorded in the cadastre within the framework of the PDSFN; the State Land Agencies participating in the project will be authorized to have access to these data.

8.3 With the Directorate of Colonization, to:

- (i) release and/or transfer the settlement projects included in the work areas of the PDSFN to state jurisdiction on the basis of plans and timetables to be established jointly; and
- (ii) harmonize the methodologies and technologies approved for the PDSFN in other areas of action in the Northeast that are not included in the present action area of the PDSFN, particularly with respect to joint action with the states.

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NATIONAL LAND ADMINISTRATION PROGRAM

NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT

Implementation of State Cadastres
Memorandum of Understanding

1. This is to reflect the understandings reached during the negotiations of the Loan for the National Land Administration and Northeast Region Land Tenure Improvement Project regarding the implementation of the State cadastres described in Part B of Schedule 2 to the Loan Agreement.

2. As provided in Section 2.01 (d) (i) of the draft Project Agreement that has been agreed, by a date not later than 90 days after the signature of the Project Agreement, INCRA shall cause each of the Northeast States to furnish to the Bank through INCRA a proposal satisfactory to the Bank on the technical and institutional issues related to the establishment of the said States' cadastres. Furthermore, as provided in Section 2.01 (a) (ii) of the draft Project Agreement, by April 30, 1986, INCRA and each of the Northeast States shall complete the installation of the cadastres in each Northeast State. In order to comply with those two conditions, INCRA will employ its best efforts to carry out the following steps by the dates specified herein:

- Not later than January 21, 1985, prepare in collaboration with the Bank, draft terms of reference for a study to be implemented by the specialized technical staff of the intended supplier of graphical cadastral data processing equipment, which would work in close collaboration with each Northeast State and INCRA for the purposes of defining the functions, data base, format and capacity of each state cadastre and the interrelations between such cadastres, the future central INCRA cadastre and data banks established by other Brazilian institutions working on subjects related to land use, such as IBGE and RADAM-BRASIL;
- Not later than February 28, 1985, review as necessary the above Terms of Reference with the Northeast State Authorities, INCRA staff and relevant federal agencies and obtain Bank approval: (a) on eventual modifications to the terms of reference; and (b) on the intended supplier of the equipment, which shall be a firm with known technical capacity;
- Not later than March 15, 1985, complete negotiations on the above study with the intended supplier and sign the corresponding contract;
- Not later than July 31, 1985, complete the review with State Authorities and competent federal agencies which INCRA may wish to consult of the conclusions and recommendations of the above

study and corresponding definitions of cadastre processing equipment specifications and send such conclusions and recommendations to the Bank for review and comment, together with any further recommendations INCRA and the states may have on the management of state cadastres and possible results of research undertaken into alternative configurations;

- It being understood that the Bank would make its comments and opinion known within a month after reception of the above recommendations and after introducing all modifications that the Bank may reasonably request, contract the acquisition (by purchase or leasing) and maintenance of the necessary equipment for each Northeast State by September 30, 1985;
- Acquire one set of cadastral data processing equipment for installation at INCRA headquarters and have the supplier company (a) adapt the corresponding basic software to the specific requirements of the project by October 31, 1985; and (b) start training INCRA and state cadastre staff immediately thereafter;
- Not later than March 15, 1986, (a) ensure the completion of the State Land Institute buildings or the part thereof where cadastre personnel and equipment would be located; and (b) ensure the delivery of cadastre processing equipment; and
- Not later than April 30, 1986, have the equipment installed and operational in each state.

Mr. Carlos Roberto Cristalli
Leader of Brazilian Delegation
to the Negotiations of the
Northeast Land Tenure Improvement Project

Mr. Rene Ruivivar
Leader of the World Bank Delegation
to the Negotiations of the
Northeast Land Tenure Improvement Project

cleared with Messrs. Tulio Barbosa (INCRA) and Maurice Asseo (World Bank, Agriculture Division B, Latin America and the Caribbean Projects Department)

January 16, 1985

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NATIONAL LAND ADMINISTRATION PROGRAM

NORTHEAST REGION LAND TENURE IMPROVEMENT PROJECT

Glossary of Technical Terms

Administrative Adjudication (Discriminacao Administrativa) - Adjudication made by the Government Administration through its proper departments without the participation of the Judiciary Branch. (See "Land Adjudication.")

Agrarian Debt Bond (TDA) (Titulo da Divida Agraria - TDA) - A bond which accrues interest of 6% to 12% per annum and monetary correction according to Article 105 of the Land Statute used by INCRA to pay indemnity of the unimproved land value of areas that are expropriated in the social interest. The bond can be used by its holder to pay part of the land tax.

Agrarian Reform (Reforma Agraria) - Combination of actions for better distribution of land, by making changes in its system of possession and use to comply with the principles of social justice and to increase productivity.

Appropriation of Unoccupied Land (Arrecadacao de Terras Devolutas) - Appropriation to the Federative Republic of Brazil of land for which there are no deeds of private title nor any administrative contest or claim brought by third parties for title to or possession of such land.

Cadastre (Cadastro) - Methodical survey of land parcels for fiscal and administrative purposes, usually over the whole of a jurisdiction (e.g., local government area or whole state).

Cadastre of Rural Property (Cadastro Tecnico de Imoveis Rurais) - (Cadastre instituted by INCRA to comply with Article 46 of the Land Statute) - Survey including not only the mapping of the limits and boundaries of rural property (cadastre plan) and the current use of land, but also surveys on topographic relief, declivity, drainage, soil, erosion and other characteristics for the appraisal and classification of the economic potential of land.

Cadastre of Rural Property Holders and Owners (Cadastro de Proprietarios e Detentores de Imoveis Rurais) - Systematic survey of the owners and holders of rural property to obtain information on the actual distribution and concentration of land and on title and possession prevailing in Brazil.

Delimitation (Delimitacao) - Identification on a map of the limits of real property through existing demarcations, walls, fences, hedges, ditches, etc.

Demarcation (Demarcacao) - Placement of physical marks to identify the limits of a parcel of land.

Exploitation Efficiency Degree (Grau de Eficiencia na Exploracao) - Index of the productivity level of rural property. This index is obtained on the basis of the proportion between the output determined in the declaration and the output indices established in a Special Instruction issued by INCRA.

Expropriation for Social Interest (Desapropriacao por Interesse Social) - Legal action, as provided for in agrarian law, filed by INCRA to obtain compulsory transfer of a given rural property to the Federal Government estate for redistribution to landless farmers or to condition its use for social purposes. Only property situated in areas declared by federal decree to have priority for agrarian reform purposes can be expropriated for social interest. Compensation for the unimproved land is paid by means of agrarian debt bonds (TDA).

Family Property (Propriedade Familiar) - Rural property that is exploited by the farmer and his family, directly and personally, absorbing all their work efforts and ensuring their support and social and economic progress, having up to the maximum area established for each region and activity, and possibly farmed with the help of third parties.

Fiscal Module (Modulo Fiscal) - An area defined by INCRA for each municipality for purposes of taxation. It is based on the kind of exploitation that is predominant in the municipality, on the output obtained and on the concept of family property.

Indivisibility of Rural Property (Indivisibilidade do Imovel Rural) - A principle of agrarian law that impairs the division of rural property into areas that are smaller than the module for rural property (Article 65 of the Land Statute).

Land Adjudication (Acao Discriminatoria) - Action within the authority of the Federative Republic or of the states, which seeks to separate unoccupied land owned by Brazil and the states from privately owned land.

Land Grabber (Grileiro) - An individual that uses fraud or other illicit means to fully or partially falsify a public or private document so as to gain, for himself or for another, ownership of someone else's land.

Land Regularization (Regularizacao Fundiaria) - Implementation of administrative or judicial procedures to obtain legitimate private ownership of land or legitimate tenure of public land.

Land Statute (Estatuto da Terra) - The name given to Law No. 4.504 of November 30, 1964, which governs the rights and obligations referring to rural property for the purposes of agrarian reform and of enforcement of the agricultural policy of Brazil.

Land Utilization Degree (Grau de Utilizacao da Terra) - The proportion between the utilized area and the usable area of a rural property.

Legitimation of Possession (Legitimacao de Posse) - Consists in giving an "Occupation License" to an occupant of government land. The area of land must be less than 100 ha, must have been made productive by the occupant, who must be able to prove occupation and habitation for a period of greater than one year and that he is not the owner of any rural land.

Letter of Consent (Carta de Anuencia) - Document issued by INCRA in favor of a squatter on unoccupied land, who does not yet have title, in order to grant him access to bank credit. The bank obtains security by means of an agricultural lien authorized by such letter.

National Land Policy Program (Programa Nacional de Politica Fundiaria) - Normative instrument created by Decree No. 87.457 of August 16, 1982, for the purposes of:

- unifying the implementation of land projects;
- activating the implementation of projects to ensure the achievement of the priority aims of the Government as regards regularization of lands; and
- enforcing Law No. 4.504 of November 30, 1964 (see "Land Statute").

National Rural Cadastre System (Sistema Nacional de Cadastro Rural) - System instituted by Law No. 5868/72 and comprising the following cadastres:

- I - Rural Property Cadastre;
- II - Rural Property Holder and Owner Cadastre;
- III - Rural Partner and Lessee Cadastre; and
- IV - Government Land Cadastre.

Native Land (Terras Indigenas) - Federal land designed for Amerindian occupation by order of the Government.

Occupation License (Licenca de Ocupacao) - A license granted by the government to an occupant of government land who has fulfilled certain requirements. The license lasts for four years, after which, if certain actions have been taken, the licensee has the right to purchase the land at its unimproved value at the date of occupation (Art. 29 of Law No. 6.383/76).

Priority Agrarian Reform Area (Area Prioritaria de Reforma Agraria) - An area destined by decree for the implementation of a plan approved by the Executive Branch that seeks to change the agrarian structure of a region over a given period of time by eliminating large and very small landed estates, by giving landless farmers access to land, by preserving the natural resources and by assuring adequate economic use of the land, within a previously approved regional plan for agrarian reform.

PROTERRA (PROTERRA) - Name given to the Program for Redistribution of Land and Furthering of the Agricultural Industry of the North and Northeast, instituted by Decree-Law No. 1.179/71, to give easier access to land, improve the conditions of employment of labor, and develop the agricultural industry in the regions within the sphere of jurisdiction of SUDAM and SUDENE.

Public Land (Terras Publicas) - Land owned by the Federative Republic of Brazil, by the States and Municipalities, regardless of whether it is designed for public use or other purposes.

Recognition (Deed of) (Titulo de Reconhecimento) - Formal act by which the Government recognizes private title to property that is lawfully distinguished from Government land.

Registry Office (Cartorio) - The premises of notary offices, court registrars and public registers. The public registry offices include: the Civil Registry of Natural Persons, Civil Registry of Legal Entities, Registry of Deeds and Documents, and Real Estate Registry.

Rural Enterprise (Empresa Rural) - Classification given to rural property exploited on an economic and rational basis according to the criteria established in the Land Statute.

Rural Module (Modulo Rural) - An area defined for each region as being sufficient, according to the types of exploitation, to support and to permit the social and economic progress of the owner and his family.

Rural Worker (Trabalhador Rural) - (a) An individual who works for a rural employer for any kind of compensation; or (b) a person, whether or not an owner, who works individually or under the family system for his own support, under conditions of mutual dependence and settlement, even with the possible help of third parties.

Sesmaria (Sesmaria) - Designation used while Brazil was a colony for areas of land that were granted; the dimensions of such areas varied considerably.

Small Estate (Minifundio) - Rural land with an area of less than one fiscal module. It may be productive land but is not an economic unit.

Social Role of Land (Funcao Social da Terra) - The complex of purposes to be achieved by ownership of land in view of the general well-being of society. One can say that the ownership of land fulfills its social role when it simultaneously:

- a) favors the well-being of the owners and of the workers that live on the land, as well as their families;

- b) maintains satisfactory levels of productivity;
- c) ensures the preservation of renewable natural resources; and
- d) complies with the legal provisions that govern fair working relations between the owners and the tillers of the land.

Special Land Regularization Commission (Comissao Especial) - Commission vested by INCRA or the State Land Institutes with powers to file administrative discriminatory action for unoccupied land of the Federative Republic of Brazil (Article 2 of Law No. 6.383/76).

Squatter (Posseiro) - A person who acquires or occupies land with the intent of owning it without having lawful title to it.

Tenure (Posse) - Conditions under which land is held.

Title Chain (Cadeia Dominial) - Uninterrupted sequence of transfers of possession of property, from the origin to the latest occupation.

Unimproved Land Value (Valor da Terra Nua) - The intrinsic value of rural land, excluding any improvements. Such value, as established for the region by INCRA for cadastre purposes.

Unoccupied Land (Terras Devolutas) - Public land acquired by prescription or cancellation of concessions and which, not being owned or employed for any public use, is not part of private property in the manner and under the conditions set forth in Article 5 of Decree-law No. 9.760 of September 5, 1946.

Unproductive Large Estate (Latifundio) - A large rural property that has an area greater than 600 times the "fiscal module" for that region. Also, large estates kept undeveloped even though the land may be productive, whether for speculative or tax reasons.

Usable Land or Usable Area (Terra Aproveitavel ou Area Aproveitavel) - Area of rural land which can be used economically, excluding land that has excessive declivity, physical impediments (such as stones, rocks, flooding, salinity, etc.) or soil deficiencies (structural or chemical).

Usucapion Rights (Acao de Usucapiao) - Legal action to obtain title to land that has been occupied without contest and without any claim from the owner over the period of time established in law, which permits the Judiciary to declare that the relevant statute of limitations has expired, the judge's decision being sufficient to obtain registration of the land. Special Usucapion Rights may be claimed to land with an area of not more than 25 ha by a person who is neither a rural nor urban landowner, has had possession of the land and lived thereon for a period of five consecutive years without any opposition, and has tilled the land himself.

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Documents Available on File

- Proposals of the 10 Northeast States for Land Activities - 1984, 12 volumes
 - Northeast Project - State PAPP Proposals - 1984, 7 volumes
 - INCRA: SFN Consolidation Project - Preliminary Draft - 1983
 - INCRA: SFN Consolidation Project - Final Draft - 1984
 - INCRA: 1983 Activities Summary
 - INCRA: Detailed Program of Photogrammetric Operations in the Northeast (with maps)
 - IDB : Land Regularization Project in the Northeast - Appraisal Report
 - INCRA: Institutional Legislation
 - INCRA: Restructuration Proposal
 - INCRA: Land Adjudication Procedures - 1981
 - Legislation on Cartography and Aerial Photogrammetry - 1981
 - Legislation on Land Taxation - 1981
 - INCRA - Rural Cadastre Data - 1982
 - Bahia - Land Legislation
 - INCRA - Tendering Documents for 1984 Aerial Photogrammetry Contracts
 - MEAF/INCRA - Proceedings of International Workshop on Land Tenure Administration, Salvador, BA, Brazil, August 20-24, 1984
- World Bank - Northeast Rural Development I Project - Sergipe - SAR
- Northeast Rural Development II Project - Rio Grande do Norte - SAR

Working Papers

1. D. Cremont: Working paper on Land Adjudication and Cadastre Establishment
2. A. Sousbie: Working paper on Land Administration
3. F. Saez : Mission BTU on Legal Issues Pertaining to Land

