

CHAPTER 2

SOCIOECONOMIC CONDITIONS

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2.1 Socioeconomic Background

2.1.1 Socioeconomic Characterization of Brazil

Brazil has a large territory of approximately 8.51 million km² (around 22 times larger than Japan). The Country is geographically divided into five big regions: North, Northeast, Southeast, South and Center-West, out of which the North Region is the largest one with a territory of approximately 3.85 million km², which corresponds to approximately 45% of the national territory. There are remarkable differences among the geographic regions not only in terms of natural conditions but also in terms of socioeconomic conditions.

Brazil is a reasonably industrialized country, with a population of approximately 160 million inhabitants (IBGE, 1994), out of which 75% live in urban areas and the remaining 25% live in the countryside or in rural areas. Since the 1991 Census, the demographic growth rate was of approximately 1.4% per year, but in the last 3 years the population is increasing at more moderate rates, around 1.0% per year.

As the largest South American country, Brazil is performing a leadership role and, within the domestic sphere is implementing several measures aiming at attaining a stable socioeconomic development. The per capita GDP estimate is about US\$ 4,120 (1998) in national average.

The following table illustrates the basic socioeconomic indexes of the country.

Table 2.1-1 Main Socioeconomic Indexes

Item/Area	North Region	Northeast Region	Southeast Region	Center-West Region	South Region	Nation Total
Total Area (1,000 km ²) (%)	3,870 (45.3)	1,561 (18.3)	927 (10.9)	1,612 (18.9)	577 (5.8)	8,547 (100)
Population (million) (%)	12.1 (7.0)	46.2 (28.9)	69.8 (42.7)	11.2 (6.4)	24.4 (15.0%)	163.7 (100%)
Demographic Density (inhabitants/km ²)	2.7	27.3	42.7	5.9	33.5	18.8
Urban Population (%)	62.3	65.2	89.3	84.4	77.2	77.5
Rural Population (%)	37.7	34.8	10.7	15.6	22.8	22.5
Illiteracy Rate (%)	12.4	28.7	8.7	11.6	8.9	14.3
Demographic Growth Rate (%)	2.4	1.1	1.3	2.2	1.2	1.6
Human Development Index	0.727	0.608	0.857	0.848	0.860	0.739
Per capita GDP (US\$)	2,738	1,845	5,744	4,338	4,389	4,122
GDP distribution (%)	4.9	12.7	59.4	7.2	15.9	100

Source: Almanaque Brasil 2000

The North Region, where the Study Area is located, occupies 45% of the country's territory but its population corresponds to only 7% of the national total. The demographic density is the lowest one among the five geographic regions. As for the GDP, the North Region represents only 4.9% of the national total.

Brazil is divided into 27 States, and among them great economic contrasts are observed due to the bad distribution of collected taxes and resources transferred to the States and municipalities, mainly those related to the State Participation Fund-FPE and to the Municipalities Participation Fund-FPM. In order to minimize this situation, the Federal Government tries, through subsidies, to allow some actions developed by the States in need of financial resources. As the development strategy for these States, the Federal Government has launched the Pluriannual Plan-PPA which includes the implementation of infrastructure projects in less developed regions, giving priority to the education, health and sanitation sectors, among others.

2.1.2 Socioeconomic Characterization of Pará

The Pará State is located in the Brazilian Northern Region, occupying 1.25 million km² which is equivalent to 24% of the entire Amazon region, and is the second largest State of the region, below the Amazon State. The urban areas of Belém, the capital of the State, and the industrial areas occupy a limited extension. The Pará State was created in 1616, at the initial stage of the Amazon region development, and its capital, Belém, was founded in the same year. Following the construction of the Belém-Brasília and Transamazônica highways, from the 60's onwards, some big projects were implemented among which we can mention the Grande Carajás Project and the Tucuruí Hydropower Plant. Ever since, the socioeconomic structure characterized by the exploitation of mineral and forest resources of the region, as well as by the agriculture and livestock husbandry activities started.

The Pará State has a population of approximately 5.6 million of inhabitants (1997), and the capital, Belém, concentrates 1.1 million or about 1/5 of the total. The proportion between urban and rural population is 50:50, showing the higher rural population percentage in comparison to the other States. Furthermore, Pará has an indigenous population living in their own reservations within the Amazon rain forest. The Pará State reported a per capita GDP, in 1998, of US\$ 2,524 far smaller than the national average of US\$ 4,122 and also smaller than the North region average. This indicates that the socioeconomic conditions of Pará are in a lower position in comparison to the other regions of Brazil.

Among the economic sectors of Pará State, the mining sector stands out. Pará State has the biggest mineral reservation in Brazil, representing more than half of the national production. In the southern portion of the Study Area, the biggest mineral province in the planet, the Serra dos Carajás (Carajás Mountain Range), is located. Below the mining sector, the electric energy and the fishery sectors follow in terms of GDP. The fishery production represents half of the North region production, although the handcrafted fishery is predominant. In the agricultural sector, most of the land in Pará is possessed by large-scale producers who mainly carry out bovine cattle husbandry without confinement and in large extensions of land. Rice and fruits productions are also developed. As for the wood exploitation, although this activity contributes for the State revenue, problems such as the clandestine exploitation and the illegal logging of wood by the residents persist, as well as the precarious environmental control with ineffective results.

2.2 Characteristics of the Development Plans

2.2.1 National Development Plan

(1) General Characterization

The Federal Government has been giving priority in the last few years to chronic inflation fighting policies, which is affecting other policies. The Brazilian economy, after the implementation of the Real Plan in 1994, is characterized by the monetary stabilization, controlled inflation, free foreign trade and market globalization, as well as by the decentralization of power and reduced federal government budget, vitalization of investments through the use of private sector resources and by the political reforms.

In the agricultural sector, due to the high interest rate policy applied to the rural credit, to the suspension of subsidies to the sector, to the low price of grains due to their substitution by imports, as well as due to the currency exchange policy that keeps the Brazilian currency (Real) in a high level, most of the rural producers are indebted, which results in an increase of unpaid debts. The agricultural sector, which used to represent an important portion of exports, started to induce the deterioration of the foreign trade balance, causing the reduction of work opportunities in the rural areas. Therefore, the strengthening of the agricultural sector is regarded as extremely important. The Federal Government has adopted certain measures to solve the problem of unpaid debts, to increase the resources for the rural credit, to implement the system of roads axes aiming at the improvement of distribution and strengthening the competitiveness of the Brazilian agricultural sector.

(2) Pluriannual Action Plan

The Pluriannual Action Plan (PPA: 2000 to 2003), which is the Brazilian national development plan, is based on the Study of National Integration and Development Axes: Axes 2000~2007.

The idea of axes is characterized by the approaching of the regional disparities problem from a new point of view, with the country divided into 9 development regions (axes), with a special attention to the economic geography of the country and to the flow of goods and services (flow of cargo). The Study Area belongs to the Center-West (Araguaia-Tocantins) Axis and to the Western Part, and not to the Amazon Axis. The Axes have 4 indispensable sectors for the sustainable development to be implemented in a period of 8 years: (i) economic infrastructure (transports, energy, communications); (ii) social development (education, health, sanitation, popular housing); (iii) environmental protection, and (iv) information and knowledge. For each sector, several projects are enlisted. The plan foresees a total investment of US\$ 180 trillion from the public and private sectors, in a period of 8 years. 50% is the share of the private sector. The economic infrastructure represents 59% of the total.

On the other hand, the PPA is also the plan that establishes the federal development strategy for a 4 years period. For this period, the total investment is of R\$ 1,113 billion for a total of 365 projects. The basic and strategic targets of the PPA are as follows: a) the stable growth of economy (economic stabilization); b) economic growth with a socially and regionally corrected income distribution (correction of the social and regional unbalance); c) economic growth with the improvement of competitiveness and productivity; and d) economic growth taking into consideration the environment.

As measures to attain such targets, the following items were established: implementation of the economic infrastructure, structuring of the knowledge and information basis, introduction of the Development Axes concept, strengthening of the social development programs, responsible financial administration, exploitation and protection of the natural resources and participation of the private sector. In the macroeconomic scenario, the aim is to get the prices stabilization (inflation of 3%), stability of the economic growth rate (around 5%), generation of job opportunities (annual increase of 2.7%), increase of income, expansion of exports and control of public finances.

One of the main characteristics of the Axes and of the PPA is to consider the environmental protection as an investment opportunity. The basic concept is to exploit and at the same time to protect the natural resources through the establishment of national parks, the research on biotechnology or ecotourism, in order to allow the generation of job opportunities and income.

2.2.2 Conditions of the Agrosilvipastoral Sector

(1) General Characterization

The development of the agrosilvipastoral sector in Brazil was always affected not only by the natural conditions, the social differences and the popular traditions that influenced in the acceptance of the agrosilvipastoral development, but also by the complex governmental administration system in all government levels. Despite the large national territory, the rural population represents only 25% of the total population. There is a great portion of available land, though with several restraining natural conditions. Consequently, the areas utilized for agricultural cultivation represent less than 8% of the country's total surface.

Historically, the agricultural policies always favored the land use aiming at the formation of medium and large-scale producers, while the support to small-scale producers and settlers was insufficient. The basic policy that creates the inequalities is still in force. On the other hand, the forest areas, which occupy 65% of the national territory, have potential to become regional resources of the northern and northeastern regions, allowing the development of several sectors besides the silviculture and the wood exploitation sector.

(2) Agricultural Policy History

The essence of the Brazilian land ownership policy is composed by 3 systems: agricultural financing, agricultural insurance and guarantee of minimum prices. The first two systems are operated by the SNCR (National System of Rural Credit) and the third one, by CONAB (National Company of Supply).

The Government, taking into consideration the importance of the rural credit to the agricultural sector, has implemented necessary measures to increase the budget for the rural credit and to make possible the introduction of foreign resources, allowing the procurement of resources through the issue of agricultural products bonds, besides also allowing the procurement of non governmental resources in the attempt of strengthening the agricultural sector. The Government is also trying to establish the interest rates at low levels for the short term credit.

Due to the limited budget, the Government keeps the attitude of limiting as much as possible

the investment in development, even in the agricultural sector, within the long term development strategies. Besides, identifies the characteristics of the agricultural sector in each State, through the concerning organisms, in order to revise the long term measures, aiming at the improvement of the conditions surrounding the agrosilvipastoral production in order to minimize the governmental interference in the market.

(3) Basic Guidelines of the Agricultural Policy

The basic guidelines of the agricultural policy are based on the following: expansion of the food production, maintenance of exports' strategies, on fostering the sustainable agriculture, in preserving the natural resources, and in the generation of job opportunities. In order to attain such objectives, the revision of the rural credit, the restructuring of the Government's role in the commercialization and supply sectors, besides the reduction of interest rates are prioritized. The policy implementation shall be basically oriented by the private sector, and the following measures are foreseen:

- a. Reduction of the Cost Brazil ("Custo Brasil"). Implementation of fixed interest rates and reduction of them for rural credit. Elaboration of an agricultural zoning according to the meteorological conditions and to the soil classification in order to reduce the insurance prize value of the PROAGRO (Program of Support to the Agricultural Activity) e for the issue of CPR (Products Bonds) in order to facilitate the procurement of financial resources by the producers. In the field of the tributary system, the exemption of ICMS for basic products and semi-finished products is expected.
- b. Reduction of administrative expenses in order to keep the producers income level and to modernize the commercialization process.
- c. Improvement of the infrastructure efficiency, and for so the privatization of railways and harbor facilities, besides the multimodal exploitation of highways, railways, waterways and harbors.

On the other hand, the MERCOSUL, installed in January 1995, removed the customs barriers by Argentina, Uruguay and Paraguay, placing the Brazilian agriculture in the liberalization scenario. Besides, the implementation of the biggest economic block of Americas, the FTAA, is foreseen for start in 2005. The Brazilian agriculture must be structured on a sound basis in order to survive the free trade scenario and thus the remodeling of the agricultural policy has been started.

2.2.3 National Program of Forests - PNF

Through the Decree no. 3420, of April 20 of 2000, published in the Federal Official Newspaper in April 22 of 2000, the President of the Republic created the National Program of Forests – PNF, with the mission of promoting the sustainable development, conciliating the exploitation with the protection of ecosystems, and the compatibility of the forestry policy with other sectors in order to promote the expansion of the domestic and foreign markets and the institutional development of the sector.

Expected to act in the whole Brazil, the PNF has a total budget of R\$ 267 million, for the period 2000 to 2003 and will work in the fostering of native forests management and in the increase of the supplies of planted forests' products, mainly in the center-southern of the Country.

Still being structured by the Ministry of Environment, this program will certainly represent an important landmark in the Brazilian forestry development, especially in the Amazon region.

2.2.4 Development in the Amazon Region

(1) History of Development in the Amazon Region

The development policies implemented in the last decades have created a fast economic and demographic growth, with the diversification and modernization of the productive structure, with the implementation of vast spatial-highway based circulation networks, telecommunications and urbanization. The Amazon region has industrialized and urbanized although remains as a frontier and an open space in which the relations with other Brazilian regions or with other Countries prevail.

Among the development plans implemented in the Amazon region, the following ones deserve to be mentioned: the construction of the Transamazônica and Perimetral Norte highways, the Grande Carajás Project, the Hydropower Plant of Balbina, the gold mine in Serra Pelada, and the large settlement projects of INCRA in the Occidental Amazon. Among the main consequences of such plans, the following stand out: the land ownership concentration and increase of land ownership conflicts; the acceleration of deforestation; the disorganization of the social and cultural environment of local communities; the ecological unbalances caused by the hydropower plants; the pollution of rivers by mercury coming from the gold mines; the impoverishment of the rural population and the increase of cities' population.

From 1990 on, the deregulation process of the economy and the reduction of the State size have started. These are necessary ingredients for the adjustment policies. The regional incentives were drastically reduced from this date on due to the imposition of environmental restrictions in their implementation and due to the urgency of the Country's fiscal crisis.

(2) Basic Guidelines of the Amazon Region Development

The current development strategy of the Country, and in special of the Amazon region, is concentrated in six basic guidelines expressed in the Avanço Brasil Program and in the Pluriannual Action Plan of the Government for the period 2000 to 2003:

- a. Consolidate the economic stability with a sustainable growth;
- b. Promote the sustainable development oriented towards the generation of job opportunities and income;
- c. Fight against poverty, promote the citizenship and the social inclusion;
- d. Consolidate the democracy and the defense of human rights;
- e. Reduce the inter-regional inequalities;
- f. Promote the right of minorities victims of prejudice and discrimination.

These strategic guidelines generated wide sectorial objectives to be attained in the following years by means of special programs and projects.

2.3 General Characteristics of the Study Area

2.3.1 General Conditions

The Study Area consists of the Marabá micro region, located 500 km south of Belém, with an approximate territory of 20 thousand km², and is composed of 5 municipalities. The “micro region” does not constitute a political and administrative division, and is rather an ensemble of geographically grouped communities. The municipality of Marabá is the micro region development pole, where the Carajás railway, and the Belém-Santana do Araguaia (PA-150) and Transamazônica highways meet.

The micro region of Marabá has a population of approximately 190 thousand inhabitants (1996), with an average demographic density of 9.5 inhabitants/km². Most of the population, except the urban population of Marabá, is engaged in activities directly or indirectly related to agriculture and animal husbandry. The micro region records a population explosion since the 80's, with an annual growth rate over 11% (1996).

The 5 municipalities of the Study Area present the following general features: (1966)

Table 2.3-1 Basic Data of the Study Area (1996)

Item / Municipality	Marabá	São João do Araguaia	São Domingos do Araguaia	Brejo Grande do Araguaia	Palestina do Pará	Marabá Micro region
Area (ha)	15,158	1,275	1,365	1,185	988	19,971
Population	150,095	8,116	17,993	6,529	6,085	188,818
Demographic density (persons / km ²)	9.9	6.4	13.2	5.5	6.2	9.5
Urban population (%)	82	26	41	58	58	74
Rural population (%)	18	74	59	42	42	26

Source: Coordenadoria de Estatística Estadual - CEE, IDESP, 1999

2.3.2 History of the Regional Development

The Study Area had its regional economy developed through the traditional exploitation of forest products such as natural rubber latex and castanha-do-Brasil, among others. From the 60's on, the agricultural sector is been rapidly developed, mainly associated to colonization projects. In the 70's, the exploitation activity started to be replaced by the exploitation of wood and by the cattle husbandry, both in large scale, also occurring the arrival of gold miners in Serra Pelada. As a consequence, the deforestation started to be noticed and has developed a faster pace with the construction of the Transamazônica highway.

Furthermore, the construction of the Carajás railway, in the second half of the 80's, speeded up even more the regional development, causing the increase of population. In the municipality of Parauabepas, neighboring Marabá at the south, the largest part of the mineral province of Carajás is located, considered the richest iron ore source in the world. In Marabá, a metallurgical pole was installed in order to process the ore coming from Carajás. In the Micro region of Marabá, a fast economic growth is expected for the near future.

2.3.3 Economic Conditions

The Study Area is potentially rich in strategic ore for the economic development of the State and of the Oriental Amazon. The exploitation of rubber, diamonds, castanha-do-brasil and wood already had their peak. The cattle husbandry was introduced in the region in a very expressive way, and today is considered the region's main economic activity, only competition in terms of importance with the mining activity.

Marabá has the Industrial District installed by the Industrial Development Company (CDI). With the implementation of the Grande Carajás Project by the Vale do Rio Doce Company (CVRD), the mining-metallurgical industry was included in the economic profile of the region. The industrial activity also includes the wood exploitation sector, civil construction and production of clay made tiles and bricks.

The Marabá municipality is an important point in the highway network. It is there where the highways Belém-Santana do Araguaia (PA-150), Transamazônica (BR-230) and Marabá-Dom Eliseu (BR-222) and the railway Carajás meet. The BR-230 in Dom Eliseu and the BR-222 in Imperatriz (MA) are respectively connected to the BR-010 (Belém-Brasília). As for the aerial mode, Marabá has an airport structure which allows landings and takeoffs of large size airplanes, connecting the municipality to Belém, Brasília and other cities.

2.3.4 Socioeconomic Conditions of the Municipalities

(1) Municipality of Marabá

Among the 5 municipalities of the Study Area, the Marabá one is the largest one. It has a surface of 15,200 km² and a population of approximately 150 thousand inhabitants (1996). The municipality center is the socioeconomic center of the Marabá micro region.

The municipality of Marabá extends from the central portion to the occidental portion of the micro region, occupying more than half of its total area. The municipality center is located at about 475 km to the south of Belém, being connected by the State highway PA-150 which has two river crossing points. Is at the Marabá center where the Transamazônica highway crosses the Carajás highway.

(2) Municipality of São João do Araguaia

The Municipality of São João do Araguaia has an area of approximately 1,300 km² and a population of approximately 8,100 inhabitants. The municipality center is located in an isolated location, far away about 25 km from the Transamazônica highway. The municipality, located in the confluence point of the Araguaia and Tocantins rivers has being used for several centuries as the entry port of the fluvial transportation among the region's areas. However, due to the decline of the fluvial transportation in the last few years, the quay is not being used anymore. The main economic activities of the municipality are agriculture and fishery.

(3) Municipality of São Domingos do Araguaia

The Municipality of São Domingos do Araguaia, located about 50km far to the east of the Marabá city, stretches along the Marabá-São Geraldo do Araguaia road. The road is paved until

the municipality of São Geraldo do Araguaia, approximately 50 km to the south, and serves for the traffic of loads between Marabá and Tocantins State. The municipality of São Domingos do Araguaia occupies a surface of approximately 1,400 km² and has a population of 18,000 inhabitants. The agriculture and animal husbandry are the main economic activities.

(4) Municipality of Brejo Grande do Araguaia

The municipality of Brejo Grande do Araguaia is located at the eastern portion of the Study Area, and the municipality center is located at a slightly distant point to the south of the Transamazônica highway, about 100 km far away from the center of Marabá municipality. In the past, the municipality used to have a larger area, but through annexations and dismemberment, it became a small territory municipality. Now it occupies a surface of approximately 1.200 km², with a population of approximately 6,500 inhabitants. The main economic activity is agriculture and animal husbandry. However, part of the population uses the buses which run on the Transamazônica highway to go working in the municipality of Marabá and surroundings.

(5) Municipality of Palestina do Pará

The municipality of Palestina do Pará, located at the extreme eastern portion of the Study Area, is a new municipality installed in 1991 by dismembering the municipality of Brejo Grande do Araguaia. The municipal center is located about 5 km at the south from the Transamazônica highway. This municipality occupies approximately 1,000 km² and has a population of approximately 6,100 inhabitants. The municipal prefecture and other administrative organisms are not yet properly structured, thus the information and data concerning to the municipality are insufficient. The main economic activity is the animal husbandry. There are few areas cultivated for agriculture due to the topographic conditions where inclined relieves and rocky land prevail.

2.3.5 General Characterization of Settlements

The Study Area is characterized by the existence of several settlements, sheltering a large number of residents, fact that deeply influences the social, economic and environmental aspects of the region. Aiming at developing the settlement projects, an INCRA regional office was installed in Marabá, starting to control the settlement projects in the southern region of Pará State.

The colonization projects were started in the 60's when the Transamazônica highway was under construction. Afterwards, in the 70's, following the region's economic development, a program for settlers from outside of the region was introduced. The recent projects are oriented to fulfill the landless farmers' movements, mainly those related to the MST (Landless Farmers Movement).

The following table presents general information of the settlement projects in the Study Area, according to data and information supplied by INCRA.

Table 2.3-2 General Information of Settlement Projects (PAs)

Municipality	Number of PAs	Area of PAs	No. of Settled Families	Population Estimate in the PAs
Marabá	36	405,569 ha	8,348	33,392
São João do Araguaia	5	26,896 ha	854	3,416
São Domingos do Araguaia	9	49,567 ha	1,258	5,032
Brejo Grande do Araguaia	2	4,104 ha	179	716
Palestina do Pará	4	13,715 ha	334	1,336
Total	56	499,851 ha	10,973	43,892

Remark: Population was calculated with the estimate of 4 persons / family.

Source: INCRA, 1999

The concentration of settlements is extremely high in the municipality of Marabá. Each settlement as an average area of 8,900 ha, with an average of 196 families. The population estimate of the settlements, i.e approximately 44,000 inhabitants, represents around 23% of all the Marabá micro region population.

The general conditions of the settlements implemented in each municipality of the Study Area are presented as follows.

(1) Settlements of Marabá

The municipality of Marabá has the largest number of settlements, 36 PAs with a total area of 405,569 ha where 8,348 families live. Each family has an average area of 48.5 ha, and the population estimate in the settlements is of 33,400 inhabitants, considering a rate of 4 persons per family.

Considering that the total area of all the settlements together represents 27% of the municipality total area, one can deduce that the productive activity in the settlements has a great effect on Marabá municipality. The settlements in Marabá can be classified into two groups: those located close to the municipal center and to the Transamazônica highway; and those far away in the countryside, at the western portion of the municipality. In the first group, some plots are or were re-sold or are being used for a different objective than the original one due to the easy access. The municipal government plans, together with INCRA and EMATER, several programs to promote the stabilization of these residents' lives and of the agricultural technical assistance. On the other hand, the distant settlements still do not have sufficient infrastructure.

(2) Settlements of São João do Araguaia

The municipality of São João officially has 5 settlements, with a total area of 26,896 ha, where 854 families live. In average, each family occupies an area of approximately 31.5 ha. The population estimate in these settlements is of 3,400 inhabitants. Due to the proximity to the Marabá municipality urban area, several plots were re-sold or are destined to other use different from the originally fixed purpose.

(3) Settlements of São Domingos do Araguaia

The municipality of São Domingos do Araguaia has 9 settlements with a total area of 49,567 ha, where 1,258 families live. In average, each family occupies 39.4 ha and the total population

estimate in the settlements is of 5,000 inhabitants. The municipality is being the target of land invasions promoted by the MST, due the good geographic conditions. Settlements were already implemented in 60% of the invaded areas, though the remaining 40% is still in conflict.

(4) Settlements of Brejo Grande do Araguaia

The municipality of Brejo Grande do Araguaia only has 2 settlements with a total area of 4,104 ha, where 179 families live. Each family has in average 23 ha and the population estimate in these settlements is 700 inhabitants. One more settlement is in implementation stage. This municipality's settlements present a little better geographic conditions than those in Palestina do Pará, however the basic infrastructure is still insufficient.

(5) Settlements of Palestina do Pará

The municipality of Palestina do Pará has 4 settlements with a total area of 13,715 ha, where 334 families live. The population estimate is of 1,300 inhabitants. In these settlements, the life conditions are precarious due to the inexistence of basic infrastructure such as electric energy and water supply, besides a deficient social infrastructure such as the local roads.

2.3.6 Conditions of Social Infrastructure

As for the Study Area infrastructure, the municipality of Marabá presents remarkably better conditions than the other 4 municipalities, which in general present insufficient conditions. However, even in Marabá, only the urban center and the outskirts are partially well structured. The infrastructure conditions get worse in direction to the west of the municipality, and in the extreme western portion almost nothing is structured. Also, in the other 4 municipalities, in general the infrastructure conditions get worse proportionally to the distance from the urban center of Marabá. Thus, at the extreme eastern portion of the municipality of Palestina do Pará, the conditions are the worst.

In general, all the 5 municipalities have electric energy and water supply infrastructure, except sewerage system, with relatively satisfactory conditions in the urban areas. However, in the rural areas the conditions are precarious, including the conditions of local roads. Educational facilities also present good conditions in urban areas while they are precarious in the rural areas.

2.4 Land Use and Land ownership Conditions

2.4.1 Land Use Conditions

(1) Land Use

In the Study Area, the agricultural activity areas are 890 thousand ha, occupying 45% of the Marabá micro region total area. These areas are especially concentrated in the municipalities of Brejo Grande do Araguaia (89%) and São Domingos do Araguaia (81%). On the other hand, these areas are few in the occidental portion of the municipality of Marabá. This distribution illustrates the fact that the oriental portion of the micro region has the smaller proportion of remaining forest and the occidental portion, the largest.

Table 2.4-1 Land Use for Agricultural Activity

Item / Municipality	Marabá	São João do Araguaia	São Domingos do Araguaia	Brejo Grande do Araguaia	Palestina do Pará	Marabá Micro region
Area (ha)	1,515,800	127,500	136,500	118,500	98,800	1,997,100
Agricultural Area (ha) (%)	535,375 (35)	93,591 (73)	110,827 (81)	105,266 (89)	54,407 (55)	889,466 (45)

Source: IBGE (Base de Informações Municipais, 1997)

(2) Land Use for Agricultural Purposes and Modality of Production

In the Study Area, the pasture land occupies the largest area, representing approximately 51% of the total area. In second, the exploited natural forests occupy approximately 39%. These proportions are quite different in the case of the whole Pará State, respectively 24% and 53%. The areas for perennial and annual crops occupy only 2.4% of the total.

The utilized areas are in average considerably small, despite being located in the Amazon region with its abundant territorial resources.

Perennial crops :	1.9 ha	Pastures :	134.7 ha
Annual crops :	5.6 ha	Natural forest :	104.0 ha
Natural pastures:	52.9 ha	Reforestation :	23.6 ha

In terms of number of rural producers by production modality, the higher number is of cattle raisers, followed by annual crops planters and farmers engaged in natural resources exploitation, with a small difference between these two modalities. On the other hand, the areas utilized by the cattle raisers are 20 times larger than those used for perennial and annual crops.

2.4.2 Land ownership Conditions

(1) History

At the initial stage of the colonization projects, started in the second half of the 50's, the land were divided into plots of 3,000 to 250,000 ha each. With the demographic increase occurred in the 70's, the plots became smaller with 50 to 200 ha each. During the construction of the Transamazônica highway, the settlers were settled in plots with 100 ha each along the road. In the 80's, invasions and occupations of latifundia started to be carried out by the Landless Farmers Movement, calling the attention of the Brazilian society for this social problem.

The land ownership issue is today a critical subject in terms of social and political aspects. The activities of invasion and occupation of land carried out by the landless farmers, occurring in Pará State (including in the Study Area) as well as in other States, do not only cause damages to the regional public safety and economic development, but also cause deforestation and degradation of areas subject to these activities.

(2) Possession and Control of Land

In Brazil, since the colonial period, through the recent military dictatorship period, until the present democratized Brazil, the huge area of unknown ownership and/or non exploited area

was never the object of a proper systematic control. People also did not use to give due attention nor preoccupy with the regularization of their properties, due to the low value of land. There are though until now several different systems and legislation concerning to the land ownership issue.

In general, the properties are classified into two groups: the public and the private areas. The public areas are under the jurisdiction of the following organisms:

- a. INCRA: Settlements areas and federal areas in general.
- b. ITERPA: State areas in Pará.
- c. FUNAI: Indigenous reservations (under federal jurisdiction).
- d. Municipal governments: municipal areas.
- e. Special federal and state agencies: national parks, ecological reservations and national forests, etc.

Except the areas clearly defined as being under the jurisdiction of these organisms, it is difficult to identify the land ownership, thus this land becomes an easy target of invasion and occupation or conflicts. When a conflict for land or the request for a land title registration occur, an official investigation is started. However, even in the areas with title, there are divergences among the concerning organisms as for the definition of the plots' limits, leading to situations of double title registration of certain parts and/or omission of other parts in the area's ownership title.

(3) Obtainment, Registration and Purchase/Sale of Land

The land ownership is controlled by the Republic Attorney General Office. The title of private ownership is given at the moment of the registration carried out in the real estates registration office. The records can be accessed upon a duly formulated request, however it is extremely difficult to have a clear view of the actual land ownership situation.

INCRA and ITERPA have the right to sell or transfer the public areas under their jurisdiction for users through development projects or a series of title request procedures, in order to promote development actions. The user who acquired the land can obtain the corresponding title, under certain conditions, through its registration in the real estates registration office. ITERPA has the competence to grant for free up to 100 ha after the confirmation of whether the area belongs to the State. When the area has 100 to 2,500 ha, it can also be sold although there aren't records of such cases.

According to INCRA regulations, the plot assigned to a settler (with 25ha to 100 ha, in average 40ha) becomes the settler property when the whole payment is carried out and the juridical procedures are fulfilled, and only if the plot is being used for the agricultural activity established in contract. The payment term varies between 1 to 12 years counting from the issue date of the provisional title. The legal property title becomes in force upon the registration in the real estates registration office.

There are though some settlers that opt for not staying on the land, re-selling their plots. Through this, the latifundia are again formed since several plots end up being purchased by a sole person.

(4) Land Ownership

The Agricultural Census of 1996 shows that most of the rural producers in the Study Area have their own property. There are also some farmers who cultivate in rented land, work in partnership with the land owner or simply occupy the land. The table below shows the general situation of the land with title in the Study Area, according to information informally supplied by INCRA.

Table 2.4-2 Areas with Title in the Study Area (%)

Producer Scale / Municipality	Marabá	São João do Araguaia	São Domingos do Araguaia	Brejo Grande do Araguaia	Palestina do Pará
Large-scale Producer (500 to 3,000 ha)	60	10	10	25	60
Medium-scale Producer (100 to 500 ha)	10	15	5	15	15
Small-scale Producer (Less than 100 ha)	30	75	85	60	25

Source: INCRA (unofficial information)

2.5 Socioeconomic Characteristics of the Study Area

The micro region of Marabá, which is the Study Area, is located at the southeastern portion of Pará State, bordering the Tocantins State to the east through the Araguaia river. The Marabá urban center is the socioeconomic center of the micro region, and the Transamazônica and PA-150 (Belém-Santana do Araguaia) highways and the Carajás railway cross this center. This region is being directly influenced by the Carajás Project which focus on the mining in Carajás. The Marabá urban area functions as the Carajás development center and, at the same time, as the center of cargo flow of agricultural related products in the region.

The micro region development was always related to the land ownership issue. The period starting in the 70's, when the essential development started, can be divided into three phases: the land concession (70's), land conflicts (80's), and conversion to familiar agriculture (from the 90's till now).

The Study Area presents the following socioeconomic characterization:

- a. Existence of several social problems: great influence of the Carajás Project; a strong demographic growth; several occurrences of invasion and occupation by the landless farmers; several occurrences of land conflict.
- b. Most of the population are migrants coming from other regions, without knowledge about the local natural conditions and the traditional production systems. This includes from the large-scale land owners coming from the south of Brazil (cattle raisers) till the settlers and occupants coming from the northeast of Brazil.
- c. The region has been developed since long ago and now has the larger degraded area in the Amazon region.

- d. The deforestation continues in a fast pace for the exploitation of wood, expansion of pasture land and implementation of new settlements.
- e. From the 5 municipalities of the micro region, Marabá is the one with the largest territory, population and outstanding socioeconomic aspects, exerting great influence in the whole region. On the other hand, the other 4 municipalities are far from having the Marabá conditions.
- f. Since the construction of the Transamazônica highway, countless colonization and settlement projects were or are being implemented in the whole micro region.
- g. Many times the settlers go away when having a personal problem or due to production problems. In rural areas, the job opportunities are limited creating a large contingent of potential unemployed people.
- h. In general, the infrastructure and social conditions are precarious, in terms of roads, water supply, sanitation, electric energy, storage and transports. Particularly, in the municipality of Palestina do Pará located at the extreme eastern portion of the micro region, the conditions are extremely precarious, and this being considered the poorest municipality.
- i. There is a large number of cases of endemic diseases such as malaria in the whole micro region, especially in the municipality of Palestina do Pará and in the settlements.
- j. There are some relatively favorable localities in regard to transports, served by the Transamazônica highway, Carajás railway and by the waterway system Araguaia-Tocantins.