

Brazil--Carajas Iron Ore Project

Carajas Amerindian Sub-Project 1/

A. General

1. Under Brazilian law, Amerindians are entitled to assistance and protection aimed at ensuring their survival and gradual acculturation. 2/ It is part of this policy that the protection provided duly recognizes the cultural distinctness of the Amerindians and their need, given their existing economic system, for large areas of land. The most important parts of the legislation are: (i) the guarantees regarding Amerindian land rights, and (ii) the protection of native lands from squatters and other illegal trespass. A more complete description of Brazilian Amerindian policies and the Amerindian Sub-project (summarized below) is in the Project File.

2. All Amerindians areas in the Carajas Project vicinity receive FUNAI 3/ assistance but experience budgetary constraints and problems related to the recruitment, training, and retaining of staff, and to a lack of transport and communication equipment. The large area size of some reserves and the numerous outlying villages under the responsibility of individual Indian Posts make adequate coverage almost impossible. All Indian lands, a total of 2,203,588 ha, have been defined by decrees and portarias. However, most lack field-level demarcation and register in the "Servicio do Patrimonio da Uniao" (SPU). At present, illicit intrusions on the lands are becoming more frequent. Changes in the region's natural environment and away from more nomadic to sedentary ways of tribal life are causing health problems in connection with inadequate water supply, nutrition and the poor quality of health care. 4/

3. The objective of the Sub-project is to minimize immediate and longer-term adverse impacts of accelerated regional development on Amerindians in the area of influence of the Carajas Project. The Amerindian reserves within this area are shown in the following table.

1/ "Projeto Ferro Carajas, Apoio as Comunidades Indigenas, Janeiro 1982" prepared by FUNAI in January 1982 forms the basis for the Sub-project. (Project File).

2/ The indigenous population of Brazil has its status and rights defined in a body of legislation comprised of Article 198 of the Constitution of 1969, the Indian Statute of 1973 (Law No. 6,001), and a series of laws and decrees enacted between 1967 and 1980 which established and now govern FUNAI.

3/ FUNAI, the National Indian Foundation and a government agency, was created in 1967 and charged with the implementation of Amerindian policies and regulation of all contacts with Amerindians.

4/ Amerindians in the Carajas area belong to nine different tribes, who have traditionally lived fractured into small groups. The Carajas project area spans the vast region in a radius of 100 km from the approximately 800 km long Carajas railway line and comprises very distinct ecological zones. The culture, subsistence base, contact history and current degree of acculturation of its Amerindian groups vary considerably.



Amerindian Reserves in the Area of Influence of the Carajas Project

<u>Reserve</u>	<u>State</u>	<u>Amerindian Group</u>	<u>Population</u>	<u>Area Size (ha)</u>	<u>Area Status^{a/}</u>	<u>Municipality</u>	<u>Number of Villages</u>
1. Catete	Para (2a)	Xikrin/ Kayapo	247	439,150	Pending/ Edital	Maraba	1
2. Mae Maria	Para (2a)	Gaviao	162	62,000	Decree	Maraba	2 250
3. Parakano	Para (2a)	Parakano	123	270,000	Decree + Portaria	Tucuruí	2
4. Sororo	Para (2a)	Suruí	89	26,257	Decree + Portaria	Maraba	1
5. Alto Turiaçu	Maranhao (6a)	Urubu- Kaapor	312	530,524	Decree + Portaria	Moncao	3
6. Angico Torto	Maranhao (6a)	Guajajara (Tenetechara)	1,084	413,589	Decree + Portaria	Anarante	8
7. Araribola	Maranhao (6a)	Guajajara	569	? ^{b/}	-- ^{c/}	Anarante	4
8. Canudal	Maranhao (6a)	Guajajara	434	? ^{b/}	-- ^{c/}	Anarante	2
9. Caru	Maranhao (6a)	Guajajara and Guaja	118	170,000	Decree + Edital	Bom Jardim	5
10. Guaja		Guaja	29				1
11. Governador	Maranhao (6a)	Gaviao	308	41,643	Decree + Portaria	Carutapera & Moncao	1
12. Irikati	Maranhao (6a)	Krikati	297	136,000	Decree + Portaria	Montes Altos	1
13. Rio Pindare	Maranhao (6a)	Guajajara	316	13,425	Decree + Edital	Moncao & Bom Jardim	2
14. Apinaje	Goias (7a)	Apinaje	447	101,000	Decree + Portaria	Tocantinopolis	2
Total			<u>4,515</u>	<u>2,203,588</u>			<u>37</u>

Source: FUNAI

a/ All areas lack register with the "Serviço do Patrimônio da União".

b/ Unknown.

c/ Possibly included in Angico Torto Decree; data being verified.

4. The Sub-project will combine emergency and preventive action programs, in response to possible threats to the physical and cultural survival of the Amerindians posed by the construction of the railway line; by increases in spontaneous settlement, mining and other extractive activities; and in anticipation of future requirements to ensure viable and independent forms of subsistence for the Amerindians. The Sub-project reflects FUNAI's philosophy that the longer-term minimization of adverse impacts can be achieved through substantial social and economic assistance to (i) create self-sustaining living conditions inside the reserves now that would later compare favorably to alternative lifestyles of the outside world, and (ii) provide Amerindians with the education required to eventually deal on an equal basis with the surrounding society.

5. The Sub-project will fund investments, start-up staff, and operating costs to ensure forceful action programs in areas described below. In support of the Sub-project, CVPD will substantially supplement FUNAI's current budgetary allocations with US\$13.6 million in project funds over 1982-86 (Annex 7-1) as shown in the table below.

Carajas Amerindian Subproject--Total Project Cost^{a/}
(US\$ 000--and-1981 terms)

	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>Total</u>
<u>Para State/2nd Regional Delegacia</u>						
Maraba Ajudancia	158.6	253.8	111.4	113.1	118.7	755.6
Catoto	367.9	202.7	108.3	108.3	110.7	897.9
Mae Maria	349.3	68.8	61.2	54.1	55.2	588.6
Parakana	344.9	531.3	124.2	125.0	125.8	1,251.2
Socoro	323.7	235.8	44.9	46.1	47.9	698.4
Subtotal	<u>1,544.4</u>	<u>1,292.4</u>	<u>450.0</u>	<u>446.6</u>	<u>458.3</u>	<u>4,191.7</u>
<u>Maranhao State/6th Regional Delegacia</u>						
Alto Turiseu	164.8	318.3	140.0	195.2	115.2	933.5
Angico Torco	161.6	228.7	12.0	12.0	12.0	426.3
Arariboia	209.5	802.0	117.3	44.3	47.8	1,210.9
Cenudal	166.3	577.9	48.7	49.9	51.7	894.5
Caru	81.0	308.6	21.0	20.6	21.8	453.0
Guaja	785.1	370.8	310.2	310.5	311.3	2,087.9
Governador	74.2	96.8	1.6	-	-	172.6
Krikati	109.3	210.9	76.5	10.2	10.2	417.1
Rio Pindere	82.6	161.5	112.4	11.2	12.4	380.1
Subtotal	<u>2,010.6</u>	<u>3,141.5</u>	<u>853.7</u>	<u>659.9</u>	<u>368.4</u>	<u>7,254.1</u>
<u>Goias State/7th Regional Delegacia</u>						
Apinaje	361.7	391.3	117.0	29.1	29.0	928.1
Technical Reserve	261.9	239.9	239.9	239.9	239.9	1,221.5
Total	<u>4,178.6</u>	<u>5,065.1</u>	<u>1,660.6</u>	<u>1,375.5</u>	<u>1,375.6</u>	<u>13,595.4</u>

Source: FUNAI.

a/ For detailed cost breakdown refer to Apoio as Comunidades Indigenas (FUNAI: January 1982) in the Project File.

6. Amerindian Land Protection. This is the responsibility of FUNAI's "Departamento Geral do Patrimonio Indigena" (DGPI), whose activities are funded under FUNAI's regular budget. 1/ In conjunction with the Sub-project, DGPI would be obliged to carry out any measures necessary to protect Amerindian lands, such as (i) eviction of squatters and illegal trespassers from Indian lands; (ii) safeguards against trespass, i.e., field-level demarcations, clear marking of reserve borders and regular surveillance; (iii) redefinition, decree and demarcation of the lands of the Guaja and Parakana Indians; (iv) settlement of contested reserve borders and pending lawsuits; and (v) registration of all reserves with the SPU.

1/ Under the Bank-financed "Northwest Region Development Program's BR.364 Amerindian Protection Project, land activities are also funded out of FUNAI's regular budget.

7. At present, the definition and protection of Amerindian lands constitutes a major problem only in the cases of the unacculturated Guaja Indians who are being attracted into the Caru Reserve; the Parakana Indians who are currently being removed from their traditional lands, which will be flooded for the Tukurui power dam, to a new area which is still under definition and lacks reserve status; and the Xikrin-Kayapo Indians whose Catete Reserve is invaded by a large livestock and woodlogging enterprise.

8. Under the Sub-project itself, the protection and surveillance of Amerindian lands would be supported through:

- (a) funding minor demarcation works inside the Catete, Parakana, Sororo, Araribata, Governador and Alto Turiacu reserves (2% of total sub-project cost);
- (b) substantial increases in the transportation and communication facilities;
- (c) increases in FUNAI staff and the establishment of observation posts under the administration and Guaja "Protection" components; and
- (d) the acquisition of chain saws and other agricultural equipment which might be used to maintain reserve border markings, under the economic development component.

9. For the future, however, increasing pressure on Amerindian lands remains a matter of great concern. For the effective protection of Amerindian lands, preventive action and early detection are essential.

10. Health. Expenditures for health, water supply, and (to a lesser extent) housing and other social infrastructure works account for the largest single share (28%) of total Sub-project cost. The Sub-project will:

- (a) improve FUNAI's mobile health services, to provide better immunization, curative and emergency services and dental care. A new Mobile Health Unit (Equipe Volante de Saude, EVS) will be staffed and equipped at the Maraba "Ajudancia", and the operations of the existing Mobile Health Unit in Sao Luis will be substantially upgraded by better equipment and operating funds;
- (b) establish "Casas do Indio" in Maraba and Sao Luis, to accommodate Amerindians in need of prolonged treatment together with caretaking family members;
- (c) fund FUNAI contracts with local hospitals in Maraba and Sao Luis for health services to Amerindians;
- (d) upgrade health services at all 14 Indian Posts and their outlying villages according to need, by the construction of

infirmaries, the contracting of health attendants, special budgetary allocations for drugs not supplied under the government's "CEME" system, and by training courses extended to paramedical staff; and

- (c) provide potable water and upgrade hygiene and housing conditions in large communities.

11. FUNAI Administration. The presence of knowledgeable and motivated FUNAI staff at the Indian Posts is indispensable to protecting and assisting Amerindian communities, and to the early detection and correction of problems. In order to retain staff at isolated Indian Posts, it is necessary to provide them with the means essential to the effective execution of their work and with simple but acceptable living quarters. Both aspects are addressed under the Sub-project: transport, communication and housing facilities will be upgraded and field-level staff will be increased (24.5% of total Sub-project cost).

12. Economic Development Projects. These projects (23% of total Sub-project cost), together with accompanying investments in physical infrastructure and vehicles, are part of the long-term strategy to assist the Amerindians in adding modern cultivation practices to their traditional subsistence activities, and in becoming economically independent. With modern agricultural techniques, the large tracts of reserve lands would allow the Amerindians to become self-sufficient in food production and to produce enough marketable excess to finance the purchase of certain goods they have come to depend on (e.g., firearms for hunting, metal tools, salt, sugar, kerosene, etc.). These economic development projects will be carefully adapted to each community's needs, cultural characteristics and environmental conditions, and, in the cases of larger production schemes, to market conditions, and provide equipment, inputs and technical assistance for agriculture, livestock, fruit and other food production projects, or support to extractive activities (e.g., Brazil and Babacu nut collection and processing), etc.

13. Education. The Sub-project will finance the construction and staffing of additional schools in outlying villages and the development of bilingual teaching programs (9.5% of total Sub-project cost).

14. Guaja Indian Protection. This protection is a major immediate effort sponsored under the Sub-project (13% of total Sub-project cost). The Guaja Indians live in very small bands in and around the Caru and the Alto Turiacu reserves. For their subsistence, they depend mostly on hunting and gathering. They are estimated to have a total remaining population of 40-60 individuals, not all of whom are yet in contact with the civilized world. Health hazards, through common contagious diseases, contractable in uncontrolled contact with non-Indian populations, may threaten their survival. FUNAI will therefore seek to contact and immunize the unknown Guaja bands, whose movements have been reported by residents of the area, and to improve the situation of the 26 Guaja Indians who were already contacted and attracted into the Caru reserve in 1981. The latter, first contact with the Guaja has had unfortunate preliminary results: the 26 Guaja are now grouped in small

settlements along the southern border of the Caru reserve, immediately opposite a major railway construction camp and next to a densely populated small town area, while their contacts and health situation go uncontrolled by FUNAI agents. FUNAI has begun to implement an emergency program, which will be funded under the Sub-project, consisting of:

- (a) the creation of a mobile team to assist the Guajas presently in the vicinity of the railway project;
- (b) designation of a "sertanista" (expert in the attraction of new tribes), who could coordinate the entire Guaja protection initiative;
- (c) establishment and staffing of five temporary watchposts for purposes of attracting the uncontacted bands; and
- (d) creation of a new, permanent Indian Post for the Guaja, in the very interior of the Caru reserve.

15 Sub-project implementation would involve an annual iterative planning, implementation, monitoring and evaluation process. The Sub-project was prepared with the active participation of the Amerindian communities and of local FUNAI staff, but will require substantial fine tuning on the basis of further anthropological studies, an analysis of potential changes in the external environment, and--with regard to economic and infrastructure investment projects--further technical analysis and careful evaluations of first results. Priorities in implementation--the protection of the physical survival of Amerindians and of Amerindian lands--must be pursued consistently and will be acceptable grounds for adjustments of the Sub-project as needed. The Bank will receive semi-annual reports on Sub-project implementation and will be able to comment on annual plans prior to their approval. In addition, Bank staff will be entitled to supervise Sub-project implementation in the field, always accompanied by a FUNAI agent.

than fines, ultra-fines and bluedust in the south; (ii) Carajas sinter feed will be more humid (shipped wetter) than Itabira products; and (iii) the prevailing winds at Sao Luis are from port to sea unlike Tubarao where winds blow from the ore port towards the city. With respect to marine pollution, especially with regard to flushing of oil holds by cargo ships, CVRD is undertaking a three-year port study including a baseline marine study to determine the optimum pollution prevention system. Due to the importance of this and other pollution studies CVRD is planning, CVRD has agreed to prepare not later than December 31, 1982, and thereafter carry out, according to a timetable satisfactory to the Bank, a pollution control program satisfactory to the Bank, and to exchange views with the Bank on the adequacy and progress of all environmental, ecological and pollution control actions undertaken by CVRD with regard to the execution and operation of the Project.

2. Amerindian Protection

5.53 An estimated 4,535 Amerindians live in the area of influence of the Carajas Project, i.e., in a radius of about 100 km from the mine and railway. FUNAI, the government agency charged since 1967 with the implementation of Amerindian policies and regulation of all contacts with Amerindians, maintains 14 reserves and associated Indian Posts within the area, with a total of 37 villages. FUNAI's second, sixth and seventh Regional Delegacia, respectively, are responsible for the Indian posts in the Carajas area. With the exception of one group (the Guaja Indians), all Amerindian groups are in permanent or intermittent contact with the surrounding society, and some are in advanced stages of acculturation.

5.54 Four reserves are most immediately affected by the Project: the Xikrin-Kayapo (247 in population), in the vicinity of the mining complex; and the Mae Maria (162 population), Caru (118 population) and Pindare (316 population) reserves in the vicinity of the railway. In addition, about 40-50 Guaja Indians live in the vicinity of the Carajas railway close to and within the Caru reserve. There is no resettlement of Amerindians required as a result of the Project.

5.55 In anticipation of an accelerated economic development as a consequence of the Carajas Project, FUNAI has proposed a Carajas Amerindian Sub-project to upgrade its services to the Carajas area. It is the Sub-project's objective to minimize potential adverse impacts by undertaking preventive measures and by creating more viable conditions within the Amerindian reserves. The Sub-project which is shown in Annex 5-4, stresses measures to: (i) protect Amerindian lands; (ii) provide health care; (iii) provide overall FUNAI assistance in staff, communications, and transport at the Indian Posts; (iv) provide technical assistance and the funding for economic development projects, and (v) provide education. It further proposes measures to strengthen the outreach operations of FUNAI's second Regional Delegacia's "Ajudancia" in Maraba/Para and of its sixth Regional Delegacia in Sao Luis/Maranhao. In its first year, the Sub-project will concentrate in particular on the four reserves which are already being affected by the Carajas mining and railroad construction works--Catete, Mae Maria, Caru and Pindare.

5.56 The Carajas Amerindian Sub-project--at a total cost over 1982-86 of US\$13.6 million--will be incremental to FUNAI's regular current budget and will be financed by CVRD. CVRD and FUNAI have signed a "convenio" satisfactory to the Bank, regarding the funding and execution of the Sub-project. In addition to provisions under the Sub-project, FUNAI will also carry out any further special measures necessary to provide protection and assistance in

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compliance with the Indian Statute, and in particular with respect to the protection of Amerindian lands. Inter alia, such measures will comprise (i) the eviction of squatters and illegal trespassers from Indian lands; (ii) safeguards against trespass, i.e., field-level demarcations, clear marking of reserve borders and regular surveillance; (iii) the redefinition, decree and demarcation of the lands of the Guaja and Parakana Indians; (iv) the settlement of cases of contested reserve borders and pending lawsuits; and (v) the register of all reserves with the Servico do Patrimonio da Uniao (SPU).

5.57 CVRD has agreed to take all necessary action to assist FUNAI to carry out the Carajas Amerindian Sub-project. The Bank has received assurances with regard to the Government and CVRD's intention to enable Bank staff to have reasonable access (accompanied at all times by FUNAI personnel) to the indigenous Amerindian population in the Carajas Project Area and to any information which the Bank may reasonably require with regard to the execution of the Sub-project and to any further measures being taken for the protection of the interests of such population. Agreement has been reached with the Government to put into effect in a timely manner the actions included in the Sub-project and to take all further measures necessary for protecting the interests of the Amerindian population in the Carajas Project area. The Government has ensured that FUNAI will furnish to the Bank periodic reports on the status of the Amerindian population living in the Carajas Project area, and that the Bank will have the opportunity to comment on FUNAI's program for the Amerindian population in the Project area annually.

E. Employment and Training

1. Direct Employment

5.58 The total labor force requirement of the Project for different production levels (15, 25 and 35 million tpy) is shown in table below:

Carajas Project: Labor Force Requirements

<u>Category</u>	<u>15 million tpy</u>	<u>25 million tpy</u>	<u>35 million tpy</u>
Higher Technical and Managerial Staff	170	180	214
Intermediate Technical and Manager Staff	761	928	1,135
Qualified/Specialized Staff	1,241	1,551	1,948
Semi-qualified Clerks	946	1,191	1,393
Non-Qualified Staff/Manual Labor	<u>625</u>	<u>757</u>	<u>877</u>
Total	<u>3,743</u>	<u>4,607</u>	<u>5,567</u>

CVRD will transfer to the Project, from its southern operations, a maximum of 15% of the required labor force, or about 835 persons. Those transferred will be predominantly in the categories of skilled levels and above, constituting about one fourth of these levels. The balance will mainly be recruited from the states of Para and Maranhao. The proposed recruitment and training programs are considered sufficient to prepare new employees to ensure a smooth start-up of the operation and to be able to reach 35 million tpy during the third year of operation. In addition, the transferred personnel will be given refresher courses as required. The proposed training program, outlined below, should be considered a maximum effort and, depending on the level of education and past training of transferred and recruited personnel, could possibly be reduced.