SCOPE OF WORK

FOR

MASTER PLAN STUDY

ON

DEGRADED LAND RESTORATION IN THE STATE OF PARÁ
IN

THE FEDERATIVE REPUBLIC OF BRAZIL

AGREED UPON BETWEEN
GOVERNMENT OF THE STATE OF PARÁ,
BRAZILIAN COOPERATION AGENCY

AND

JAPAN INTERNATIONAL COOPERATION AGENCY

BELÉM, 9 DECEMBER 1999

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I. INTRODUCTION

In response to the request of the Government of Federative Republic of Brazil (hereinafter referred to as "the Government of Brazil"), the Government of Japan has decided to conduct the Master Plan Study on Degraded Land Restoration in the State of Para (hereinafter referred to as "the Study"), in accordance with the Basic Agreement on Technical Cooperation between the Government of Japan and the Government of Brazil, signed in Brasilia on September 22, 1970 (hereinafter referred to as "the Basic Agreement").

Accordingly, Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of the Government of Japan, Brazilian Cooperation Agency (hereinafter referred to as "ABC") and Executive Secretary of Science, Technology and Environment, the State of Pará (hereinafter referred to as "SECTAM"), the executing agency responsible for the implementation of the technical cooperation for the Study, will undertake the Study in close cooperation with the other Brazilian authorities concerned.

The present document sets forth the Scope of Work with regard to the Study.

II. OBJECTIVES OF THE STUDY

The objectives of the Study are;

- 1. To formulate a master plan on degraded land restoration, oriented to conserve natural forests, in the State of Para, which includes the following;
- (1) Indigenous forest restoration;
- (2) Tree plantation for forest products;
- (3) Agroforestry.
- 2. To carry out, in the course of the Study, technology transfer to the Brazilian counterpart personnel through on-the-job training.

III. STUDY AREA

The Study area shall cover administrative micro region of Marabá municipality with an area of 22,365 km2, which includes Brejo Grande do Araguaia, Marabá, Palestina do Para, São Domingos do Araguaia and São João de Araguaia.

IV. SCOPE OF THE STUDY

In order to achieve the objectives mentioned above, the Study shall cover the following items;

1. to collect and analyze the relevant existing data and information through field survey on the following; E.M.

(1) natural conditions including,
- topography;
- meteorology and hydrology;
- geology;
- soils;
- vegetation;
- tree species;
- others.
(2) socio-economic conditions including,
- population;
- labor;
- household income;
- industrial structure;
- education;
- health;
- others.
(3) market of forestal and agricultural products conditions including,
- marketable products;
- storage;
- processing;
- transportation;
- others.
(4) forestal and agricultural conditions including,
- policy;
- credit and extension;
- natural forest management;
- land use;
- land tenure;
- tree plantation, agroforestry, farming and pastoral practices;
- farmer's organization;
- others.

2. to extract degraded land analyzing LANDSAT-TM and RADARSAT image. F.M.

- 3. to prepare a degraded land map at scale of 1/100,000 for the study area.
- 4. to identify potentials, problems and constraints against the degraded land restoration in the study area.
- 5. to prepare a degraded land restoration plan map at scale of 1/100,000 for the study area.
- 6. to formulate the master plan of;
- (1) characterization of degraded land for restoration into some types;
- (2) land use methodology of each type;
- (3) degraded land restoration plan such as indigenous forest restoration, tree plantation for forest products and agroforestry;
- (4) selection of projects according to priority;
- (5) implementation schedule;
- (6) recommendations about policy to promote projects, including training, environmental education and credit.
- 7. to assess the master plan (technical, social, institutional, and of costs and benefits calculation).

V. STUDY SCHEDULE

The Study will be carried out in accordance with the attached tentative schedule (See ANNEX II).

VI. REPORTS

IICA shall prepare and submit the following reports to the Government of Brazil.

1. Inception Report

Thirty (30) copies in Portuguese at the commencement of the first field work

2. Progress Report

Thirty (30) copies in Portuguese at the end of the second field work.

3. Interim Report

Thirty (30) copies in Portuguese at the commencement of the third field work.

4. Draft Final Report

Thirty (30) copies in Portuguese at the forth field work. The Government of Brazil will provide its comments on the Draft Final Report to JICA within one (1) month after receipt of the Draft Final Report.

5. Final Report

Fifty (50) copies in Portuguese and ten (10) copies in English within two (2) months after receipt of comments on the Draft Final Report. $\mathcal{F}_{\mathcal{M}}$

In addition to the above reports, the followings are to be submitted to the Government of Brazil.

- 6. Map (15 sets of original and digital data)
- 1) Degraded land map at scale of 1/100,000 for the study area
- 2) Degraded land restoration map at scale of 1/100,000 for the study area

VII. UNDERTAKING OF BRAZILIAN SIDE

- 1. The Government of Federative Republic of Brazil shall accord privileges, immunities and other benefits to the Japanese study team (hereinafter referred to as "the Team") in accordance with the Basic Agreement;
- (1) to secure the safety of the Team,
- (2) to permit the members of the Team to enter, leave and stay in the Federative Republic of Brazil for the duration of their assignment therein, and exempt them from foreign registration requirements and consular fees,
- (3) to exempt the members of the Team from taxes, duties and other charges on equipment, machinery and other materials brought into the Federative Republic of Brazil for the conduct of the Study,
- (4) to exempt the members of the Team from income tax and other charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Team for their services in connection with the implementation of the Study,
- (5) to provide necessary facilities to the Team for the remittance as well as utilization of the funds introduced into the Federative Republic of Brazil from Japan in connection with the implementation of the Study,
- (6) to secure permission for entry into relevant areas for the implementation of the Study,
- (7) to secure permission for the Team to take all data and documents out of the Federative Republic of Brazil to Japan, in accordance with laws and regulations in force in Brazil, for analysis during the implementation of the Study, and
- (8) to provide medical services as needed. Its expense will be chargeable on the members of the Team.
- 2. The Brazilian side shall bear claims, if any arises, against the members of the Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Team.
- 3. SECTAM shall act as the counterpart agency to the Team and also act as coordinating body in relation with other governmental and non-governmental organizations concerned for smooth implementation of the Study. $\mathcal{E}.\mathcal{M}$.

- 4. SECTAM shall, at it's own expenses, provide the Team with the following, in cooperation with other relevant organizations concerned;
- (1) available data and information related to the Study,
- (2) full time counterpart personnel, technical supporting staff, clerical staff, etc.
- (3) suitable office spaces with necessary equipment and furniture in Maraba,
- (4) appropriate number of vehicles with drivers, and
- (5) credentials or identification cards.

VIII. UNDERTAKING OF JAPANESE SIDE

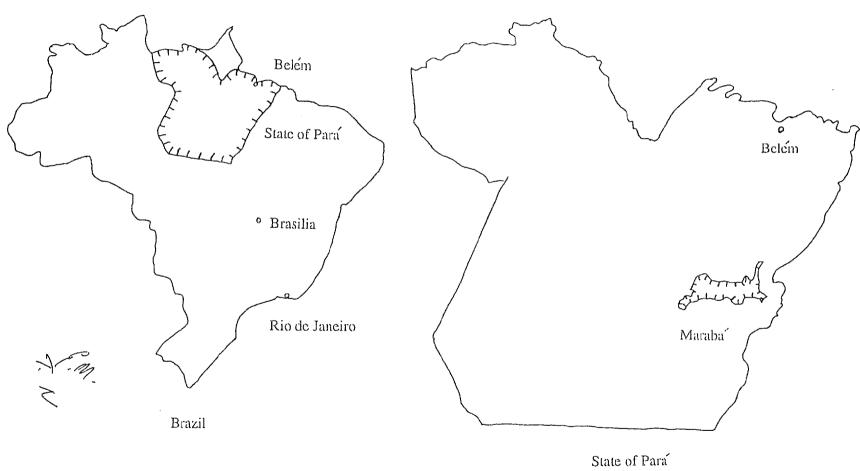
For the implementation of the Study, the Japanese side shall take the following measures;

- (1) to dispatch, at its own expense, the Team to the Federative Republic of Brazil, and
- (2) to pursue technology transfer to the Brazilian counterpart personnel in the course of the Study.

IX. CONSULTATION

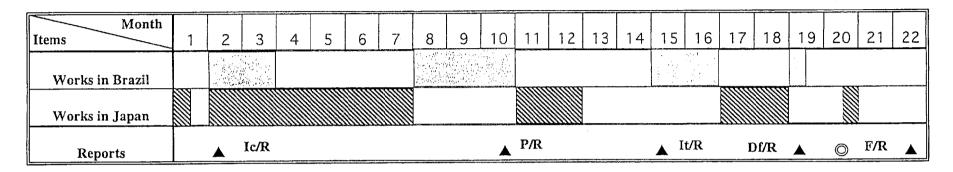
JICA, ABC and SECTAM shall consult with each other in respect of any matter that may arise from or in connection with the Study. ρ_M .

ANNEX I



ANNEX II

TENTATIVE WORK SCHEDULE



(Remarks)

Inception Report Ic/R

Progress Report P/R

Interim Report It/R

Draft Final Report Df/R

Final Report F/R

Comments of Df/R by Brazilian side \bigcirc

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