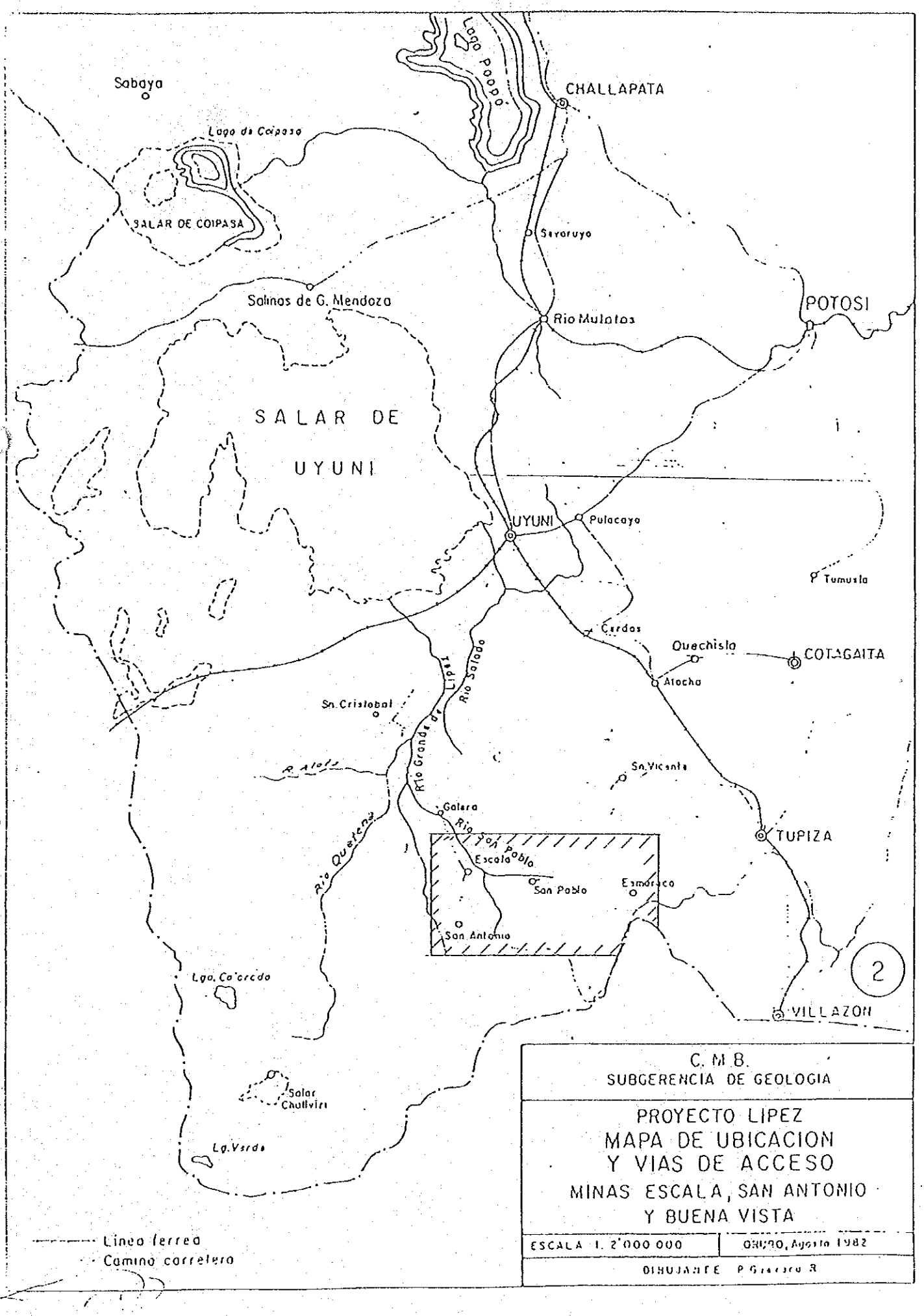
3. To pursue technology transfer to the Bolivian counterpart personnel in course of the Study.

## VII. CONSULTATION

JICA, MMAJ and COMIBOL shall consult with each other in respect of any matter that may arise from or in connection with the study.


Sabaya
Lago de Coipasa
SALAR DE COIPASA
Lago Poopo
CHALLAPATA
Sevaruyo
Salinas de G. Mendoza
Rio Mulatos
POTOSI
SALAR DE
UYUNI
UYUNI
Pulacayo
Tumusla
Cardos
Quechisla
COTAGAITA
Atocha
Rio Salado
Rio Grande de Lipez
Sn. Cristobal
Rio Alota
Rio Quetena
Sn. Vicente
Galera
Rio San Pablo
Escala
San Pablo
Esmoraca
San Antonio
TUPIZA
VILLAZON
Lgo. Colorado
Salar Chuliviri
Lg. Verde
Linea ferrea
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C. M. B.
SUBGERENCIA DE GEOLOGIA
PROYECTO LIPEZ
MAPA DE UBICACION
Y VIAS DE ACCESO
MINAS ESCALA, SAN ANTONIO
Y BUENA VISTA
ESCALA 1. 2'000 000
ORURO, Agosto 1982
DIBUJANTE P. Graneros R.

SCOPE OF WORK
FOR
THE MINERAL EXPLORATION
IN
PALMEIROPOLIS AREA
THE FEDERATIVE REPUBLIC OF BRAZIL

AGREED UPON BETWEEN
DEPARTAMENTO NACIONAL DA PRODUÇÃO MINERAL

AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY AND
THE METAL MINING AGENCY OF JAPAN

February 24, 1986

JOSE BELFORT DOS SANTOS BASTOS
Diretor-Geral do
Departamento Nacional da
Produção Mineral - DNPM

TAKESHI IZUMI
Leader of the Japanese
Survey Team, JICA and MMAJ

## I. INTRODUCTION

In response to the request of the Government of the Federative Rebublic of Brazil (hereinafter referred to as "Brazil"), the Government of Japan has decided to conduct mineral exploration in Palmeiropolis area (hereinafter referred to as "the Survey"), in accordance with Basic Agreement on Technical Cooperation between the Government of Japan and the Government of Brazil.

Accordingly, The Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the conduct of technical cooperation programs of the Government of Japan, and the Metal Mining Agency of Japan (hereinafter referred to as "MMAJ"), the official agency for the conduct of technical cooperation for mineral exploration in joint operation with JICA, will undertake the Survey, in close cooperation with the authorities concerned of Brazil.

The present document sets forth the scope of work with regard to the Survey.

## II. OBJECTIVES OF THE SURVEY

The main objective of the Survey is to explore and to assess the mineral potential of the survey area.

## III. OUTLINE OF THE SURVEY

1. The Survey will be carried out within a period of three years commencing from 1986.
2. The region to be surveyed covers an area of approximately 2750 square kilometers as shown on the location map attached hereto, limited by the coordinates $13^{o}00'S/13^{o}40'S$ and $48^{o}10'W/48^{o}30'W$.

3. The Survey will be carried out by means of geological, geochemical and geophysical survey and drilling.

4. Processing and compilation of the data regarding the results of the Survey will be made in Japan and Brazil, with the participation of Brazilian counterparts.

5. At the end of each stage of the Survey, areas will be selected from the initial area for further detailed survey.

6. The detailed plan for the Survey will be discussed and determined by JICA, MMAJ and Departamento Nacional da Produção Mineral (hereinafter reffered to as "DNPM").

## IV. REPORTS

JICA and MMAJ shall prepare and submit annual and final reports (in English) to DNPM.

## V. UNDERTAKINGS OF THE BRAZILIAN SIDE

1. To facilitate the smooth conduct of the Survey, the Brazilian side shall take necessary measures:

   (1) to secure the safety of the Survey team.

   (2) to permit the members of the Japanese survey team to enter, leave and sojourn in Brazil for the duration of their assignment therein, and exempt them from alien registration requirements and consular fees.

   (3) to exempt the members of the Japanese survey team from taxes, duties and any other charges on equipment, machinery and other materials brought into Brazil for the conduct of the Survey.

   (4) to provide the necessary facilities to the Japanese survey team for unrestricted re-export of equipment and machinery brought into Brazil for the conduct of the Survey

(5) to exempt the members of the Japanese survey team from income tax and charges of any kind imposed on or in connection with any emolument or allowance paid to the members of the Japanese survey team for their services in connection with the conduct of the Survey.

(6) to provide necessary facilities to the Japanese survey team for remittance as well as utilization of the funds introduced into Brazil from Japan in connection with the conduct of the Survey.

(7) to secure permission for entry into the survey area for the conduct of the field survey.

(8) to secure permission for the Survey team to take all data, document and specimen including photographs related to the Survey out of Brazil to Japan.

(9) to provide medical services as needed. Its expenses will be chargeable on members of the Japanese survey team.

(10) to secure permission to use walkie talkies and other wireless telecommunications for the conduct of the field survey.

2. The Brazilian side shall bear claims, if any arises against the members of the Japanese survey team resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the conduct of the Survey, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Japanese survey team.

3. DNPM shall act as counterpart agency to the Japanese survey team and also coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth conduct of the Survey.

4. DNPM shall, at its own expense, provide the Japanese survey team with the followings, in cooperation with other relevant organizations:

(1) available data and information related to the Survey

(2) counterpart personnel including one geologist to work for the Survey as a head of the Brazilian counterpart personnel.

(3) suitable office space with the necessary equipment in Palmeiropolis area.

(4) adequate means of transportation for the Survey

(5) assistance in making arrangements for accomodation and other personnel such as liaison staff, local guides and laborers required for the Survey (Expenses to be borne by the Japanese Survey team)

(6) credentials or identification cards.

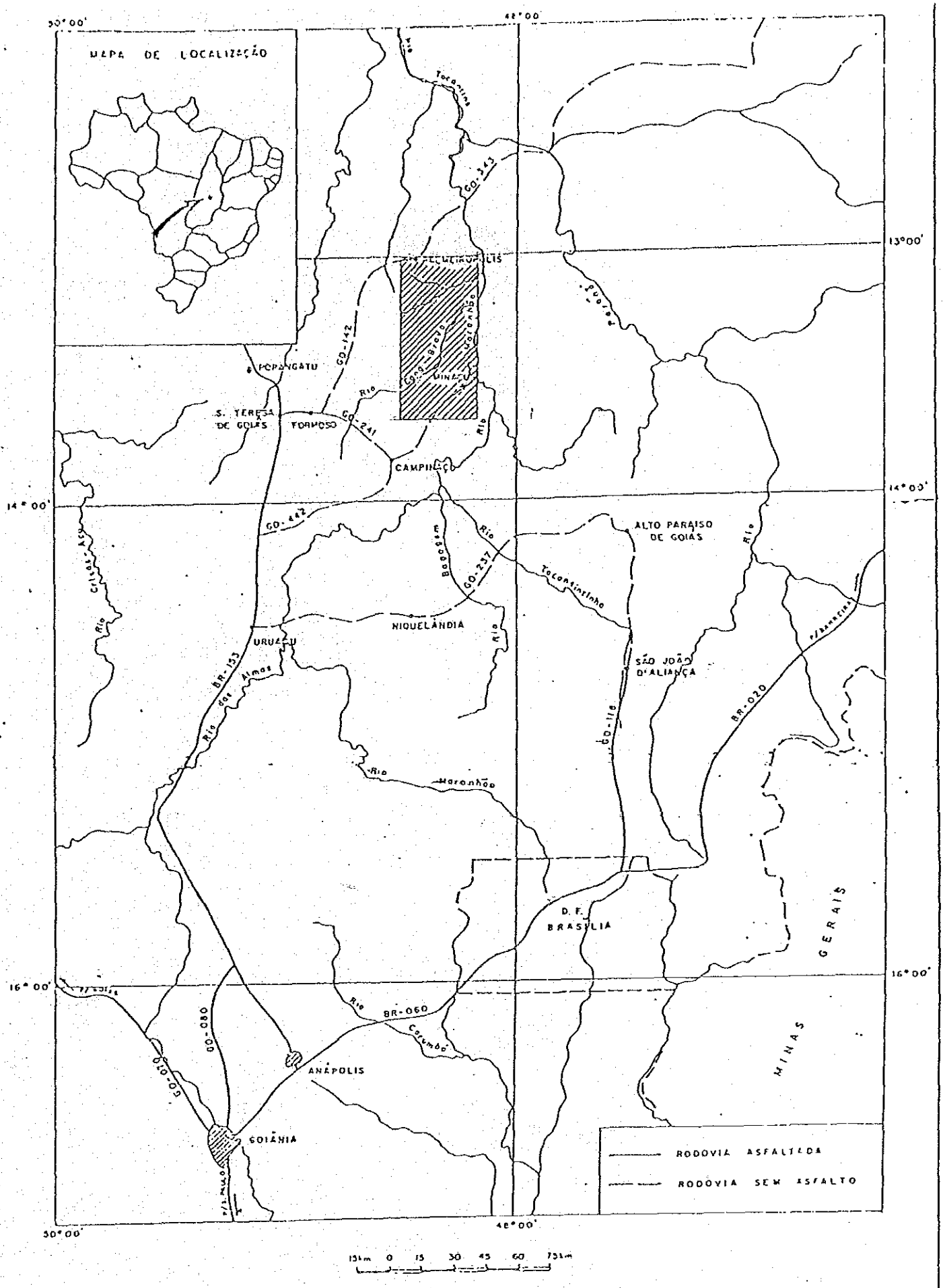
## VI. UNDERTAKINGS OF THE JAPANESE SIDE

For the conduct of the Survey, the Japanese side shall take the following measures:

1. to dispatch, at its own expense, the survey team to Brazil.
2. to donate the equipment and the machinery for the Survey at the request of DNPM.
3. to give consideration to accept one or more members of the counterpart personnel for analysis and discussion which will be conducted in Japan.
4. to pursue technology transfer to the Brazilian counterpart personnel in the course of the Survey.

## VII. CONSULTATION

JICA, MMAJ and DNPM shall consult with each other in respect of any matter that may arise from or in connection with the Survey.




MAPA DE LOCALIZAÇÃO DO PROJETO

FIG. 01

SCOPE OF WORK
FOR
THE MINERAL EXPLORATION
IN
PALMEIROPOLIS AREA
THE FEDERATIVE REPUBLIC OF BRAZIL

AGREED UPON BETWEEN
DEPARTAMENTO NACIONAL DA PRODUÇÃO MINERAL

AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY AND
THE METAL MINING AGENCY OR JAPAN

February 24, 1986

JOSÉ BELFORT DOS SANTOS BASTOS
Diretor-Geral do
Departamento Nacional da
Produção Mineral - DNPM

TAKESHI IZUMI
Leader of the Japanese
Survey Team, JICA and MMAJ

## I. INTRODUÇÃO

Em resposta à solicitação do Governo da República Federativa do Brasil (a seguir mencionado "Brasil"), o Governo do Japão decidiu desenvolver a pesquisa mineral na área de Palmeiropólis (adiante reportado como PROJETO), em concordância com o Acordo Básico de Cooperação Técnica entre os Governos do Japão e do Brasil.

Consequentemente, a Japan International Cooperation Agency (a seguir reportada como "JICA"), a agência responsável pela condução dos programas de cooperação técnica do Governo do Japão, e a Metal Mining Agency of Japan (adiante mencionada como "MMAJ"), a agência oficial para a condução de Cooperação técnica em pesquisa mineral, em operação conjunta com a JICA, executarão o PROJETO, em estrita cooperação com as autoridades relacionadas no Brasil.

O presente documento apresenta a seguir o escopo de trabalho com referência ao Projeto.

## II. OBJETIVO DO PROJETO

O objetivo principal do Projeto é pesquisar e avaliar o potencial mineral da área acima mencionada.

## III. ESBOÇO DO PROJETO

1. O Projeto será realizado dentro de um período de três anos, iniciando-se em 1986.
2. A região a ser pesquisada cobre uma área de aproximadamente 2750 quilômetros quadrados conforme o mapa de locação anexada a este documento, limitada pelas coordenadas 13°00'S/13°40'S e 48°10'W/48°30'W.
3. O estudo abrangerá levantamentos geológicos, geofísicos, geoquímicos e sondagem.
4. O processamento e compilação dos dados concernentes a resultados do Projeto serão realizados no Japão e no Brasil, com a participação da contraparte brasileira.
5. Ao final de cada etapa do Projeto, áreas serão selecionadas para uma pesquisa detalhada posteriormente.
6. O detalhamento das áreas será discutido e definido pela JICA, MMAJ e "DNPM").

IV. RELATÓRIOS

JICA e MMAJ prepararão e submeterão os relatórios anuais e final (em inglês) ao DNPM.

V. RESPONSABILIDADES DO LADO BRASILEIRO

1. Para facilitar a execução do Projeto, o lado brasileiro tomará as medidas necessárias para:
   (1) garantir a segurança da equipe do Projeto.
   (2) permitir aos membros da equipe de trabalho japonesa entrar, sair e permanecer no Brasil pelo período de execução do Projeto aqui exposto, isentando-os de exigências para registro de estrangeiros e de emolumentos consulares.
   (3) isentar os membros da equipe japonesa de taxas, impostos e quaisquer outros ônus sobre equipamento, maquinário e outros materiais trazidos ao Brasil para a execução do Projeto.
   (4) fornecer as facilidades necessárias para a equipe japonesa quando da reexportação do equipamento e maquinário trazidos ao Brasil para realização do Projeto.
   (5) isentar os membros da equipe japonesa de imposto de renda e despesas de qualquer espécie fixada ou em conexão com qualquer salário ou auxílio pagos aos membros da equipe japonesa por seus serviços ligados à execução do Projeto.
   (6) fornecer as facilidades necessárias à equipe japonesa para a remessa de valor bem como dos fundos trazidos do Japão ao Brasil referentes à execução do Projeto.
   (7) Assegurar permissão para entrada na área do Projeto para realização do trabalho de campo.
   (8) garantir autorização para que a equipe do Projeto leve todos os dados, documentos e amostras, incluindo fotografias necessárias ao Projeto, do Brasil para o Japão.
   (9) fornecer assistência médica quando necessária. As despesas serão debitadas aos membros da equipe de trabalho japonesa.
   (10) Assegurar autorização para usar "walkie talkies" e outros meios de comunicação sem fio na execução do trabalho de campo.

2. O lado brasileiro responderá às reclamações contra os membros da equipe japonesa no decurso da realização do Projeto e em decorrência do cumprimento de seus deveres na execução do Projeto, exceto quando tais reclamações provierem de negligência ou má conduta intencional por parte dos membros da equipe.

3. O DNPM atuará como agência de contrapartida da equipe de trabalho japonesa e também como orgão coordenador com outras organizações governamentais ou privadas visando à boa condução do Projeto.

4. O DNPM fornecerá, às suas próprias expensas, à equipe japonesa, em cooperação com outras organizações pertinentes, o seguinte:
   (1) dados disponíveis e informações relativas ao Projeto.
   (2) pessoal da contrapartida incluindo um geólogo para trabalhar para o Projeto como chefe de pessoal da contraparte brasileira.
   (3) escritório com espaço adequado para o equipamento necessário na área de Palmeirópolis.
   (4) meios adequados para transporte durante a execução do Projeto.
   (5) assistência na organização para acomodação e alocação de outras pessoas tal como pessoal de staff, guias locais e trabalhadores necessários para o Projeto (despesas a serem alocadas à equipe japonesa).
   (6) credenciais ou cartões de identificação.

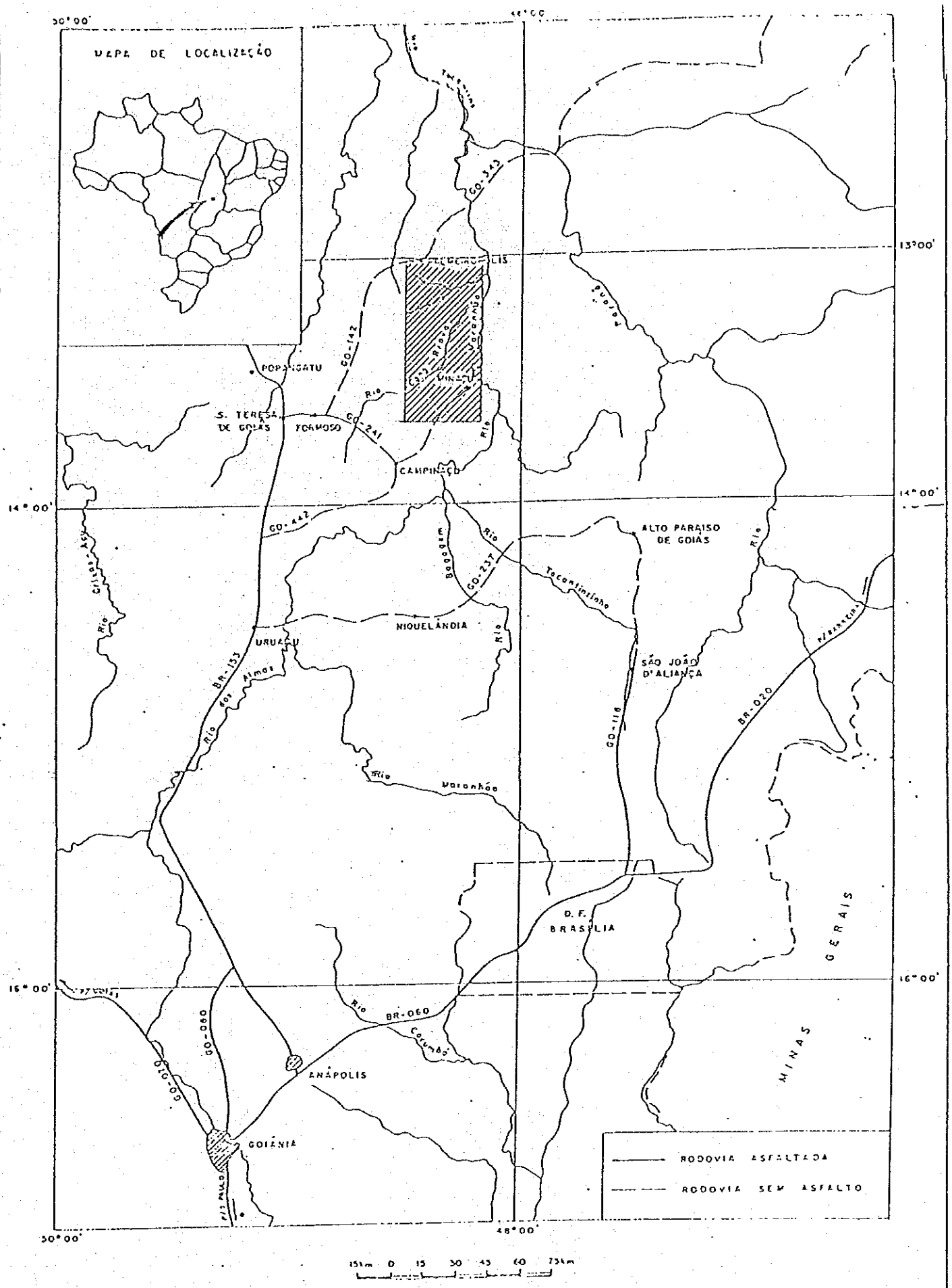
## VI. RESPONSABILIDADES DO LADO JAPONÊS

Para a realização do Projeto, o lado japonês tomará as seguintes medidas:

1. enviar, às suas expensas, a equipe de trabalho para o Brasil.
2. doar o equipamento e o maquinário para o Projeto a pedido do DNPM.
3. aceitar um ou mais membros da contrapartida de pessoal para análises e discussões a serem conduzidas no Japão.
4. possibilitar transferência de tecnologia para o pessoal de contrapartida brasileira no decurso do Projeto.

## VII. CONSULTAS

JICA, MMAJ e DNPM consultar-se-ão a respeito de qualquer assunto que possa surgir relativo ao Projeto.




MAPA DE LOCALIZAÇÃO DO PROJETO

FIG. 01

SCOPE OF WORK

FOR

FEASIBILITY STUDY

ON

TOLOLO PAMPA PLAIN GROUND WATER USED

AGRICULTURAL DEVELOPMENT PROJECT

IN

THE ATACAMA REGION

OF

THE REPUBLIC OF CHILE

AGREED UPON BETWEEN THE ATACAMA REGION GOVERNMENT

AND

THE JAPAN INTERNATIONAL COOPERATION AGENCY

INTENDENCIA DE ATACAMA
COPIAPO
CHILE

須田康夫

SR. GABRIEL ALLIENDE FIGUEROA
TENIENTE CORONEL
INTENDENTE REGIONAL
REGION DE ATACAMA
REPUBLICA DE CHILE

MR. YASUO SUDA
LEADER OF THE JAPANESE
PRELIMINARY STUDY TEAM
THE JAPAN INTERNATIONAL
COOPERATION AGENCY

## I. INTRODUCTION

In response to the request of the Government of the Republic of Chile (hereinafter referred to as Chile), the Government of Japan has decided to conduct a Feasibility Study on a Ground Water Used Agricultural Development Project in the Adjacent Area to Tololo Pampa Plain in the Atacama Region (hereinafter referred to as the Study) in accordance with the Agreement on Technical Cooperation between the Government of Japan and the Government of Chile.

Accordingly, the 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 will undertake the Study in close cooperation with the authorities of Chile.

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

## II. OBJECTIVES OF THE STUDY

The objectives of the Study are:

1. to investigate and assess the resources of ground water and land for agricultural development in the adjacent area to Tololo Pampa Plain.

2. to formulate an agricultural development project by exploiting the ground water resources, and

3. to verify technical soundness and economic feasibility of the agricultural development project.

須

## III. STUDY AREA

The Study area will be approximately 33,000 hectares of semi-arid area located about 30 kilometers north of the city of Vallenar which lies among coastal mountains on the west, Pan American Highway on the east, Llano Punta de Diaz on the north,

and Llano Tololo Pampa on the south.

## IV. SCOPE OF THE STUDY

In order to achieve the objectives mentioned above, the Study consists of two phases.

In the first phase, the possibilities of ground water and land resources development will be studied in order to formulate a basic plan for agricultural development in the Study area.

In the second phase, a feasibility study on ground water used agricultural development project will be carried out on basis of the results of the first phase study.

1. First Phase:

1.1 To collect and review available data and information relevant to the Study on the following items:

1. Topography
2. Meteorology and hydrology
3. Geology, hydro-geology and ground water
4. Soils and vegetation
5. Land use and land tenure
6. Irrigation
7. Agriculture and agro-economy
8. Existing regional development plans
9. Socio-economy
10. Others

1.2 To investigate and assess the following items:

1. Meterology
2. Available ground water resources and their development possibilities by field reconnaisance, electric sounding survey, test boring, pumping test and ground water quality analysis.

須

3. Soils
4. Land use and potential agricultural area
5. Existing and potential irrigation area
6. Present situation on agriculture

1.3 To formulate a basic plan for ground water used agricultural development.

2. Second Phase:

On the basis of the results of the first phase study, a feasibility study on ground water used agricultural development of the area with potential ground water and land resources will be carried out.

2.1 To supplement data and information collected during first phase study and to review them.

2.2 To survey and investigate the following items:

1. Topography
2. Meteorology
3. Geology, hydro-geology and ground water
4. Soils and land capability
5. Farming, practices and cropping patterns
6. Agricultural institution
7. Farm economy
8. Irrigation
9. Availability, quantity and cost of construction materials.

2.3. To conduct analysis on the following items and to formulate an optimum agricultural development plan:

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1. Hydro-geology and ground water
2. Land classification and land use plan
3. Suitable crops, cropping patterns and farming practices.

4. Estimation of yield
5. Water requirement and irrigation method
6. Preliminary design and construction, methods of irrigation and drainage facilities, farm road, farm reclamation, farm settlement and others
7. Implementation schedule of the project
8. Costs and benefits of the project
9. Economic and financial analysis
10 Sensitivity test of economic viability
11 Disbursement schedule of the project cost

V. REPORTS

JICA shall prepare and submit the following reports in Spanish to the Atacama Regional Government.

1. First Phase
   1. Plan of Operation 30 copies at the beginning of the field survey
   2. Field Report 30 copies at the end of the field survey
   3. Progress Report 30 copies at the end of the first phase study
2. Second Phase
   1. Interim Report 30 copies at the end of the field survey
   2. Draft Final Report: 30 copies at the end of home office work in Japan
   3. Final Report 50 copies within two months after receiving comments

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The Atacama Regional Government will, if any, present comments on the Draft Final Report to the Japanese Study Team within a month after receiving the Report.

## VI. STUDY SCHEDULE

The Study will be carried out in accordance with the tentative schedule attached in Annex.

## VII. UNDERTAKINGS OF THE GOVERNMENT OF CHILE

The Government of Chile shall accord privileges, immunities and other benefits to the Japanese Study Team in accordance with the Agreement on Technical Cooperation between the Government of Japan and the Government of Chile.

1. To facilitate the smooth conduct of the Study, the Government of Chile shall take necessary measures.

   1) To secure the safety of the Japanese Study team.

   2) To permit the members of the Japanese Study Team to enter, leave and sojourn in Chile for the duration of their assignment therein, and exempt them from alien registration requirements and consular fees.

   3) To exempt the members of the Japanese Study Team from taxes, duties and other charges on equipment, machinery and other materials brought into Chile for the implementation of the Study.

   4) To exempt the members of the Japanese Study Team from income tax and other charges of any kind imposed on or in connection with any emolument or allowance paid to the members of the Japanese Study Team for their services in connection with the implementation of the Study.

   5) To provide medical services as needed. Its expenses will be chargeable on the member of the Japanese Study Team.

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6) To secure permission for the Japanese Study Team to take all data and documents (including photographs) related to the Study out of Chile to Japan.

7) To secure permission for the entry into private properties or restricted areas for the implementation of the Study.

2. The Government of Chile shall bear claims, if any arises againts the members of the Japanese Study 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 Japanese Study Team.

3. The Atacama Regional Government shall act as counterpart agency to the Japanese Study Team and also coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

4. The Atacama Regional Government shall, at its own expense, provide the Japanese Study Team with the following in cooperation with other relevant organizations:

1) available data and information related to the Study

2) Counterpart personnel

須

3) suitable office space with necessary equipment in Vallenar.

4) credentials or identification cards .

VIII. UNDERTAKING OF JICA

For the implementation of the Study, JICA shall take the following measures.

1. to send, at its own expense, study teams to Chile.

2. to pursue technology transfer to the Chilean counterpart personnel in the course of the Study.

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IX. JICA and the Atacama Regional Government will each other in respect of matter that may arise from, or in connection with the Study.

## TENTATIVE WORK SCHEDULE

| Item \ Phase / Month | First Phase | | | | | | | | | | Second Phase | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| Field work in Chile | | | | | | | | | | | | | | | | | | | | | | |
| Home office work in Japan | | | | | | | | | | | | | | | | | | | | | | |
| Reports | △P.O | | | | | △F.R | | | | △P.R | | | | | | △I.R | | | △D.F.R | | | △Fin.R |

P.O; Plan of Operation F.R; Field Report P.R; Progress Report I.R; Interim Report

D.F.R; Draft Final Report Fin.R; Final Report

須

*SCOPE OF WORK*

*FOR*

*THE MASTER PLAN STUDY*

*ON*

*THE QUINDIO BASIN INTEGRATED*

*AGRICULTURAL DEVELOPMENT PROJECT*

*BETWEEN*

*JAPAN INTERNATIONAL COOPRATION AGENCY*

*AND*

*CORPORACION AUTONOMA REGIONAL DEL QUINDIO*

*Bogota*
*28 de July , 1986*

*Julián Serna Giraldo*
*Director General*
*Corporación Autónoma*
*Regional del Quindío (CRQ)*

小泉恵二

*Keiji KOIZUMI*
*Leader of the Preliminary*
*Survey Team,*
*Japan International*
*Cooperation Agency (JICA )*

Ligia Rodríguez Salazar
*División Of International*
*Technical Cooperation*
*Departamento Nacional de*
*Planeación (DNP)*

## I. INTRODUCTION

In response to the request of the Government of the Republic of Colombia, the Government of Japan decided to conduct the Master Plan Study on the Quindio Basin Integrated Agricultural Development Project (hereinafter referred to as "the Study"), in accordance with the Agreement on Technical Cooperation between the Government of Japan and the Government of the Republic of Colombia, signed on 22 December, 1976 (hereinafter referred to as "the Agreement").

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programme of the Government of Japan, will undertake the Study in close cooperation with the authorities of the Republic of Colombia.

The present document sets forth the Scope of Work for the Study.

## II. OBJECTIVE OF THE STUDY

To formulate the Master Plan for the integrated agricultural development in Quindio Basin.

## III. STUDY AREA

The study area is whole Quindio province, covering about 200.000 ha. in gross

## IV. SCOPE OF THE STUDY

The activities to be undertaken by the Japanese Study Team will be broadly divided into the following three categories;

WORK I :

*Diagnosis of the study area by means of remote sensig technique.*



JSG K.K.

WORK II :

Data collection, field investigation and formulation of the basic concept for the integrated agricultural development.

WORK III :

Formulation of the Master Plan and preparation of the Master Plan report

Major work items of each work categoryare :

1. WORK I ( remote sensing )

The remote sensing work will be carried out mainly in Japan and supplementary survey will be conducted in Colombia Accordingly the land-system-map will be prepared.

2. WORK II ( Field work )

(1) To collect and review of the relevant existing data and information including the following items.

a. Meteorology and hydrology
b. Topography
c. Geology and hydrogeology
d. Soil
e. Irrigation and drainage
f. Residual water
g. Water quality
h. Agriculture
i. Agro-regional economy and institution
j. Others

(2) To carry out field survey in the project area including the following items.

a. Hydrological survey
b. Topographic survey
c. Geological and hydrogeological survey
d. Soil survey
e. Small scale dam, irrigation and drainage facilities survey
f. Residual water survey

ER JSG K.K.

g. Water quality survey
h. Land conservation survey
i. Agronomic survey
j. Agro-economic survey
k. Regional economic and institutional survey
l. Construction materials and cost survey

3. Work III ( home office work )

(1) To determine a definite layout of the integrated agricultural development taking into consideration the following components.

a. Land use plan
b. Agricultural promotion and development plan
c. Disaster prevention and land conservation plan
d. Water quality improvement plan
e. Rural infrastructure plan

(2) To identify high priority projects
(3) To make evaluation of the said projects
(4) To prepare the implementation schedule of the said projects

## V. WORK SCHEDULE

The tentative work schedule is shown in the Annex I .

## VI. REPORTS

JICA shall prepare and submit the following reports to the Government of the Republic of Colombia.

1. Inception Report
   Twenty (20) copies in English at the commencement of the Work I
2. Land Cover Map
   twenty (20) copies at the commencement of the Work II
3. Land Use Map
   Twenty (20) copies at the end of the Phase I Study

JSG K.K.

4. Plan of Operation

Twenty (20) copies in English at the commencement of the Phase II Study.

5. Interim Report

Twenty (20) copies in English at the end of the Work II.

6. Draft Final Report

Forty (40) copies in English and twenty (20) copies of its summary in Spanish within one (1) month after the home office work.

The Government of the Republic of Colombia shall provide JICA with its comments on the Draft Final Report to JICA office in Bogota within one (1) month after the receipt of the Draft Final Report.

7. Final Report

Fifty (50) copies in English and twenty (20) copies of its summary in Spanish within two (2) months after the receipt of the Colombian Government's comments on Draft Final Report.

## VII. UNDERTAKINGS OF THE GOVERNMENT OF COLOMBIA

1. To facilitate smooth conduct of the Study, the Government of Colombia shall accord to the Japanese Study Team and its members such privileges and immunities as provided for in V.2(b),VI (excluding 2(c)), VII and IX of the Agreement.

2. Corporación Autónoma Regional del Quindío (hereinafter referred to as "CRQ") shall act as the counterpart agency to the Japanese Study Team and also as the coordinating body in relation to other governmental and non-governmental organizations for the smooth conduct of the Study.

3. CRQ shall take necessary measures in cooperation with other relevant organizations :

   (1) To secure the safety of the Japanese Study Team.
   (2) To secure permission for entry into private properties or restricted areas for the conduct of the Study.
   (3) To secure permission for the Japanses Study Team to take all data and documents (including photographs) related to the Study out of Colombia to Japan.

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4. CRQ shall, at its own expense, provide the Japanese Study Team with the folowing in cooperation with other relevant organizations;

(1) Available data and information related to the Study.
(2) Additional survey related to the Study if necessary.
(3) Counterpart personel.
(4) Suitable office space with necessary equipments in Quindio.
(5) Appropriate number of vehicles with drivers in the project area.
(6) Credentials or identification cards.

VIII. UNDERTAKINGS OF JICA

For the implementation of the Study, JICA shall take the following measures:

1. To dispatch, at its own expense, the Japanese Study Team to Colombia.
2. To pursue technology transfer to Colombian counterparts in the course of the Study.
3. To provide the equipments necessary for the field work.

IX. JICA and CRQ shall consult with each other in respect of any matter that may arise from or in connection with the Study.

X. Present Scope of Work is made both in English and Spanish.

If the discrepancy of interpretation arises between both languages, the English expression shall be employed.

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Appendix

## Tentative Schedule

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Work I in Japan | ■ | ■ | ■ | ■ | | ■ | ■ | | | | | | | | | | | | |
| Work I in Colombia | ■ | | | | ■ | ■ | | | | | | | | | | | | | |
| Work II in Colombia | | | | | ■ | ■ | ■ | | ■ | ■ | ■ | ■ | | | | | | | |
| Work III in Japan | | | | | | | | | | | | | ■ | ■ | ■ | | | | |
| | Phase I | | | | | | | | Phase II | | | | | | | | | | |
| Reports | △ Inception Report | | | | △ Land Cover Map | | △ Land Use Map | | △ Plan of Operation | | | △ Interim Report | | | △ Draf Final Report | | | △ Final Report | |

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*ALCANCE DE TRABAJO*

*PARA*

*EL ESTUDIO DEL PLAN MAESTRO*

*SOBRE*

*EL PROYECTO DE DESARROLLO AGRICOLA INTEGRADO*

*DE LA*

*CUENCA DEL QUINDIO*

*ACORDADO ENTRE*

*LA AGENCIA DE COOPERACION INTERNACIONAL DEL JAPON*

*Y*

*LA CORPORACION AUTONOMA REGIONAL DEL QUINDIO*

*Bogotá*
*Julio 28 de 1986*

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## I. INTRODUCCION

En respuesta a la solicitud del Gobierno de la República de Colombia, el Gobierno del Japón decidió llevar a cabo el Estudio del PLan Maestro sobre el Proyecto de Desarrollo Agrícola Integrado de la Cuenca del Quindío (que en adelante se denominará "El Estudio"), de conformidad con el Acuerdo sobre Cooperación Técnica entre el Gobierno del Japón y el Gobierno de la República de Colombia, firmado el 22 de diciembre de 1976 (que en adelante se denominará "El Acuerdo").

En consecuencia, la Agencia de Cooperación Internacional del Japón, (que en adelante se denominará "JICA"), agencia oficial responsable de la implementación de los programas de cooperación técnica del Gobierno del Japón, llevará a cabo el estudio en estrecha cooperación con las Autoridades de la República de Colombia.

El presente documento establece el alcance del trabajo para el Estudio.

## II. OBJETIVO DEL ESTUDIO

Formulación del PLan Maestro para el desarrollo agrícola integrado en la Cuenca del Quindío.

## III. AREA DE ESTUDIO

El área de estudio es la totalidad del Departamento del Quindío, cubriendo cerca de 200.000 hectáreas en total.

## IV. ALCANCE DEL ESTUDIO

Las actividades a ser llevadas a cabo por el Equipo de Estudio Japonés, serán divididas, en términos generales, en las tres categorías siguientes:

Trabajo I
Diagnóstico del área de Estudio por medio de técnicas de sensores remotos.

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Trabajo II

Recolección de datos, investigación de campo y formulación del concepto básico para el desarrollo agrícola integrado.

Trabajo III

Formulación del Plan Maestro y preparación del informe de dicho plan.

Los principales items de trabajo de cada una de las categorías anteriores son:

1. Trabajo I (Sensores remotos)
   El trabajo de sensores remotos será llevado a cabo principalmente en el Japón y el estudio suplementario será llevado a cabo en Colombia.

   De tal forma que el mapa de sistemas de tierras será preparado.

2. Trabajo II (Trabajo de campo)
   (1) Reunir y revisar los datos y las informaciones apropiadas existentes, incluyendo los siguientes renglones:
      a. Meteorología e hidrología
      b. Topografía
      c. Geología e Hidrogeología
      d. Suelos
      e. Instalaciones de riego, drenaje y presa en pequeña escala
      f. Aguas residuales
      g. Calidad de Aguas
      h. Agricultura
      i. Economía agro-regional e institucional
      j. Otros

   (2) LLevar a cabo los estudios de campo en el área del proyecto, incluyendo los siguientes renglones.

      a. Estudio Hidrológico
      b. Estudio Topográfico

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c. Estudio geológico e hidrogeológico
d. Estudio de suelos
e. Estudio de instalaciones de riego, drenaje y presa en pequeña escala
f. Estudio de aguas residuales
g. Estudio de calidad de aguas
h. Estudio de conservación de tierras
i. Estudio agronómico
j. Estudio agro-económico
k. Estudio Regional económico e institucional
l. Estudio de materiales de construcción y costos

3. Trabajo III (Trabajo de oficina en Japón)

(1) Determinación de un bosquejo definitivo del desarrollo agrícola integrado teniendo en cuenta los siguientes componentes:

a. PLan de uso de tierras
b. Plan de fomento y desarrollo agrícola
c. PLan de prevención de desastres y conservación de tierras
d. PLan de mejoramiento de calidad de aguas
e. Plan de infraestructura rural

(2) Identificación de los proyectos de alta prioridad.

(3) Evaluación de los proyectos así identificados.

(4) Elaboración del programa e implementación de los proyectos arriba mencionados.

## V. PROGRAMA DE TRABAJO

El programa tentativo de trabajo se ilustra en el anexo I



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## VI INFORMES

JICA preparará y presentará los siguientes informes al Gobierno de la República de Colombia.

1. Informe Inicial
   Veinte (20) copias en inglés al comienzo del trabajo I

2. Mapa a Base de Satélite
   Veinte (20) copias al comienzo del trabajo II

3. Mapa de Uso de Tierras
   Veinte (20) copias al final del estudio de la fase I

4. Plan de Operación
   Veinte (20) copias en inglés al comienzo del estudio de la fase II

5. Informe Intermedio
   Veinte (20) copias en inglés al final del trabajo II

6. Borrador del informe Final
   Cuarenta (40) copias en inglés y veinte (20 ) copias de su resumen en español dentro del mes siguiente al trabajo III llevado a cabo en Japón.

   El Gobierno de la República de Colombia entregará a JICA, en su oficina de Bogotá, sus observaciones sobre el borrador del informe final, dentro del mes siguiente al recibo de dicho informe.

7. Informe final
   Cincuenta (50) copias en inglés y veinte (20) copias de su resumen en español dentro de los dos (2) meses siguientes al recibo de las observaciones del Gobierno de Colombia sobre el borrador del Informe Final.

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## VII. COMPROMISOS DEL GOBIERNO DE COLOMBIA

1. Para facilitar la conducción del estudio, el Gobierno de Colombia concederá al Equipo de Estudio Japonés y a sus miembros tales privilegios e inmunidades como se estipulán en el Artículo V.2(b), en el Artículo VI (excluyendo 2(c)), en el Artículo VII y en el Artículo IX de Acuerdo.
2. La Corporación Autónoma Regional del Quindío (que en adelante se denominará "CRQ") actuará como entidad contraparte del Equipo de Estudio Japonés y también como coordinadora en relación con las otras organizaciones gubernamentales y no gubernamentales pertinentes, para la fácil ejecución del Estudio.

3. CRQ tomará las medidas necesarias en cooperación con otras organizaciones pertinentes, para:

   (1) Procurar la seguridad del Equipo de Estudio Japonés
   (2) Procurar permisos para la entrada a propiedades privadas o áreas restringidas para efectuar el Estudio.
   (3) Procurar el permiso para que el Equipo de Estudio Japonés pueda sacar de Colombia y llevar al Japón todos los datos y documentos (incluyendo fotografías), relacionadas con el Estudio.

4. CRQ en cooperación con las otras organizaciones pertinentes, proveerá, a sus expensas, al Equipo de Estudio Japonés, lo siguiente:

   (1) Información y datos disponibles en relación con el Estudio
   (2) Estudios adicionales en relación con el Estudio, si fuere necesario.



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