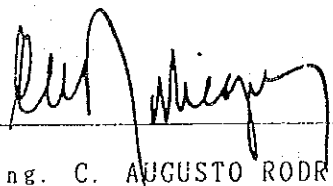


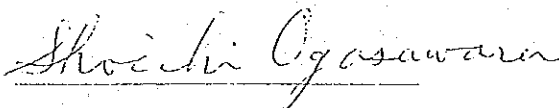
SCOPE OF WORK  
ON  
THE TECHNICAL COOPERATION  
FOR  
THE FEASIBILITY STUDY  
ON  
THE LIMON DEL YUNA AREA AGRICULTURAL DEVELOPMENT PROJECT  
IN  
THE DOMINICAN REPUBLIC

AGREED UPON BETWEEN  
INSTITUTO NACIONAL DE RECURSOS HIDRAULICOS  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY

SANTO DOMINGO, 25 AUGUST, 1993



Ing. C. AUGUSTO RODRIGUEZ G.  
Exéctive Director.  
Instituto Nacional de  
Recursos Hidraulicos



Mr. SHOICHI OGASAWARA  
Leader.  
Preparatory Study Team,  
Japan international  
Cooperation Agency

## I. INTRODUCTION

In response to the request of the Government of the Dominican Republic, the Government of Japan has decided to conduct the Feasibility Study on the Limon del Yuna Area Agricultural Development Project in the Dominican Republic (hereinafter referred to as 'the Study'), in accordance with the relevant laws and regulations in force in Japan.

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 concerned of the Government of Dominican Republic.

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 conduct a feasibility study on the Limon del Yuna area agricultural development project, and
2. to pursue transfer of technology to the Dominican counterpart personnel in the course of the Study.

## III. OUTLINE OF THE STUDY

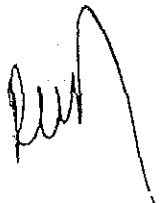
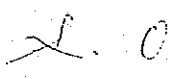
### 1. Study Area

The Study covers Limon del Yuna area, approximately 10,000ha, in Duarte Province (See location map attached as Appendix II).

### 2. Scope of the Study

The Study will cover the following items:

- (1) Collection, review and analysis of relevant existing data and information, and field survey, in terms of:
  - 1) natural conditions (topography, vegetation, meteorology, hydrology, geology, soil, etc.),
  - 2) social and economic conditions (population, household, employment, regional economy, farmers' economy, land tenure, rural and social infrastructure etc.).

- 3) agricultural conditions (land use, cropping pattern, agricultural yield/production, irrigation and drainage system, water management, agricultural facility and infrastructure, farming practices, processing, marketing, farmers' organizations, agricultural supporting services including extension and agricultural credit, etc.),
  - 4) environmental conditions (natural condition, social condition, etc.), and
  - 5) others.
- (2) Amendment of the existing map at the scale of 1/10,000 based upon the existing aerophotograph taken in 1984.
- (3) Execution of following surveys:
- 1) geological survey
  - 2) hydrological survey
  - 3) topographical survey
  - 4) soil survey
  - 5) farmers' household survey
  - 6) survey for the present situation of irrigation and drainage
  - 7) environmental survey
  - 8) others
- (4) Preparation of agricultural development plan of the Study area, including:
- 1) land use and cropping pattern plan
  - 2) farming practices development plan
  - 3) water resource development plan
  - 4) irrigation and drainage development plan
  - 5) post harvest and marketing system development plan
  - 6) farmers' organization and supporting service development plan
  - 7) preliminary design of main facilities
  - 8) project implementation schedule and organization
  - 9) operation and maintenance plan
  - 10) flood protection plan
  - 11) environmental conservation plan
- (5) Estimation of project cost and benefit
- (6) Project evaluation
- (7) Recommendations
- 
- 

#### IV. STUDY SCHEDULE

The Study will be carried out in accordance with the attached tentative work schedule. (Appendix I)

#### V. REPORTS

JICA shall prepare and submit the following reports to the Government of Dominican Republic, which consist of two versions:

- complete English version, and
- Spanish version with English appendixes.

(1) Inception Report

Five (5) copies in English and ten (10) copies in Spanish at the commencement of the Study.

(2) Progress Report (I)

Five (5) copies in English and ten (10) copies in Spanish at the end of the first part of the field work.

(3) Interim Report

Five (5) copies in English and ten (10) copies in Spanish at the end of first part of the home office work.

(4) Progress Report (II)

Five (5) copies in English and ten (10) copies in Spanish at the end of the second part of the field work.

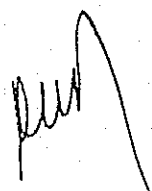
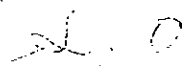
(5) Draft Final Report

Five (5) copies in English and twenty (20) copies in Spanish within one (1) month following the end of the second part of the home office work of the Study. The Government of Dominican Republic shall provide JICA with its comments within one (1) month after receipt of the Draft Final Report.

(6) Final Report

Thirty (30) copies in English and fifty (50) copies in Spanish within two (2) months after the receiving comments on the Draft Final Report.

#### VI. UNDERTAKING OF THE GOVERNMENT OF DOMINICAN REPUBLIC

- 
1. To facilitate smooth conduct of the Study, the Government of Dominican Republic 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 the Dominican Republic for the duration of their assignment therein and exempt them from foreign registration requirements and consular fees.
  - (3) to exempt the members of the Japanese study team from taxes, duties, fees and other charges on equipment, machinery and other materials brought into the Dominican Republic for the conduct of the Study.
  - (4) to exempt the members of the Japanese study 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 study team for their services in connection with the implementation of the Study.
  - (5) to provide necessary facilities to the Japanese study team for remittance as well as utilization of the funds introduced into the Dominican Republic from Japan in connection with the implementation of the Study.
  - (6) to secure permission for entry into private properties or restricted areas for the implementation of the Study.
  - (7) to secure permission for the Japanese study team to take all data and documents including photographs related to the Study out of the Dominican Republic to Japan, and
  - (8) to provide medical services as needed. Its expenses will be chargeable on members of the Japanese study team.
2. The Government of Dominican Republic shall bear claims, if any arises, against 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 members of the Japanese study team.
3. The Insutituto Nacional de Recursos Hidraulicos (hereinafter referred to as 'INDRHI') shall act as the counterpart agency to the Japanese study team and also as coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

4. INDRHI shall, at its own expense, provide the Japanese study team with the following in cooperation with other relevant organizations concerned:

- (1) available data and information related to the Study,
- (2) counterpart personnel,
- (3) suitable office space with necessary equipment (electricity, drinking water and telephone) near the Study area and in Santo Domingo
- (4) credentials or identification cards

#### VII. UNDERTAKING OF JICA

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

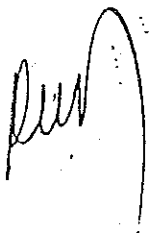
1. to dispatch, at its own expense, study teams to the Dominican Republic, and
2. to pursue technology transfer to the Dominican counterpart personnel in the course of the Study.

#### VIII. LANGUAGE

In case any divergence arises about interpretation of this Scope of Work, which is done in English and Spanish, the English text shall prevail.

#### IX. CONSULTATION

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

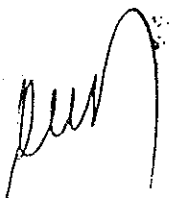
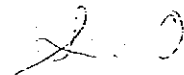


TENTATIVE SCHEDULE

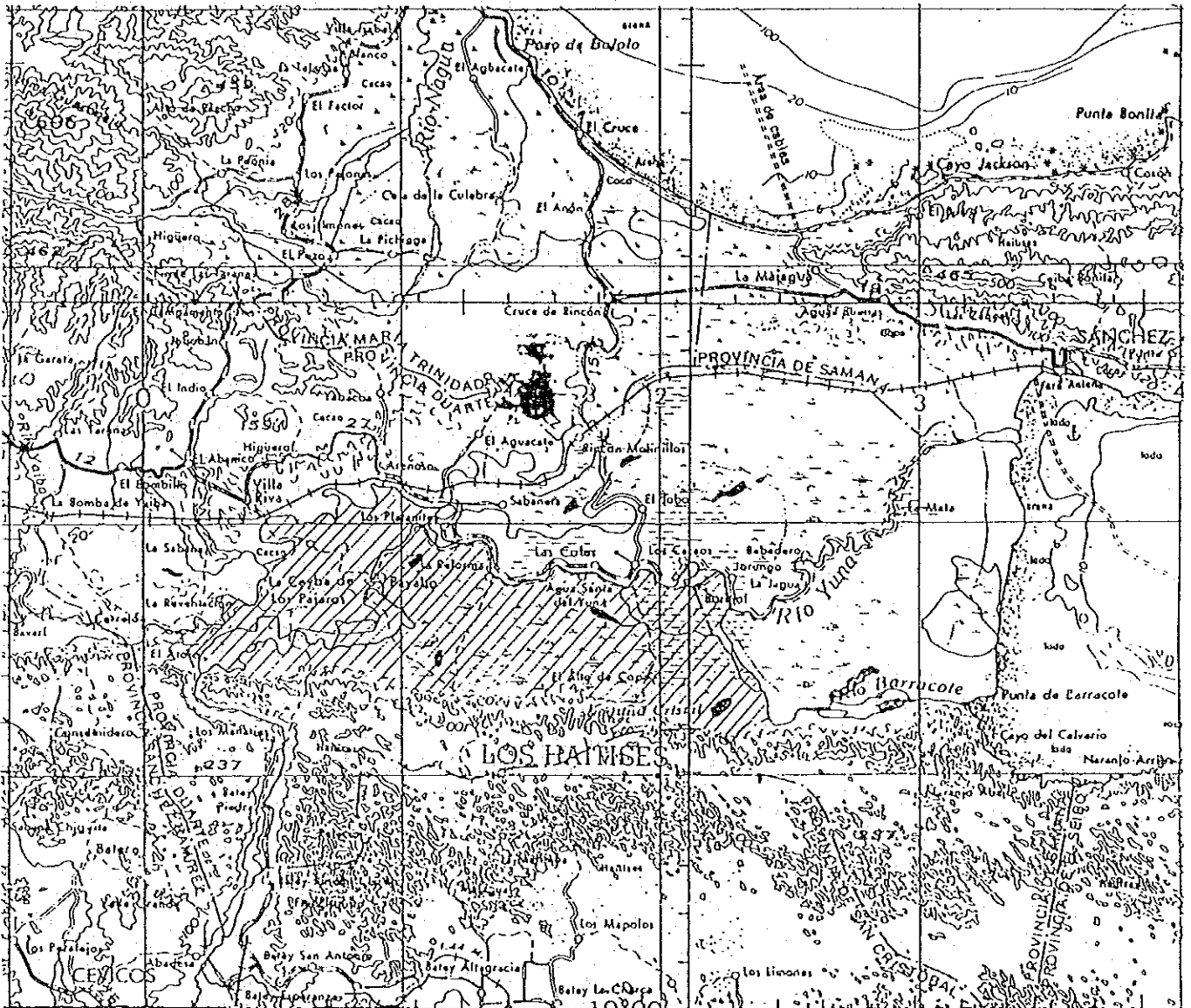
MONTH ITEM	MONTH IN ORDER																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
STUDY	<div style="display: flex; justify-content: space-between;"> <div style="width: 20%; border-bottom: 1px solid black;"></div> <div style="width: 40%; border-bottom: 1px solid black;"></div> <div style="width: 20%; border-bottom: 1px solid black;"></div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="width: 20%; border-bottom: 3px double black;"></div> <div style="width: 40%; border-bottom: 3px double black;"></div> </div>																
REPORTS	△ IC/R	△ P/R(I)	△ IT/R					△ P/R(II)			△ DF/R					△ F/R	


Remarks ——— : Field Work in the Dominican Republic  
 ═══════ : Home Office Work in Japan

IC/R: Inception Report      P/R(I): Progress Report(I)  
 IT/R: Interim Report      P/R(II): Progress Report(II)  
 DF/R: Draft Final Report    F/R : Final Report

STUDY AREA



 : Study Area

Scale: 1/250,000

L.O



MINUTES OF MEETING  
ON  
SCOPE OF WORK  
FOR  
THE FEASIBILITY STUDY  
ON  
THE LIMON DEL YUNA AREA AGRICULTURAL DEVELOPMENT PROJECT  
IN  
THE DOMINICAN REPUBLIC

The preparatory study team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA"), and headed by Mr. Shoichi Ogasawara, visited the Dominican Republic from August 9 to 28, 1993 for the purpose of discussing and confirming the Scope of Work for the Feasibility Study on the Limon del Yuna Area Agricultural Development Project in the Dominican Republic (hereinafter referred to as "the Study").

The Team had a series of discussions with the officials concerned of Instituto Nacional de Recursos Hidraulicos (hereinafter referred to as "INDRHI") and other organizations on the Scope of Work for the Study. The list of participants of the meeting is attached in the ANNEX.

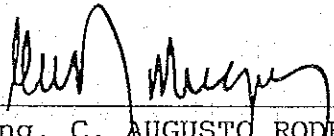
As a result of the discussions, the Team and INDRHI agreed on the Scope of Work for the Study.

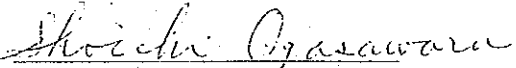
The following are the main issues discussed and agreed upon by both sides in relation to the Scope of Work for the Study.

1. INDRHI shall, at its own expense, install the equipments and investigate water discharge at the proposed springs and Payabo river and rainfall at Los Haitises periodically before the Study, in case that JICA provides INDRHI with survey equipments for water discharge and rainfall.
2. INDRHI shall execute, at its own expense, soil survey and farmers' household survey in consultation with the Japanese study team.
3. INDRHI shall provide the Japanese study team with necessary drivers.

4. JICA will execute the initial environmental examination (IEE) in the first half of the Study. Based upon the result of IEE, JICA will decide in consultation with INDRHI, whether the environmental impact assessment(EIA) should be executed. If necessary, JICA will execute EIA in the latter half of the Study.
5. INDRHI requested that the following equipments necessary for the Study be procured by JICA and be donated to the INDRHI after the termination of the Study. The Team promised to convey its request to the Government of Japan.
  - vehicles
  - sets of survey equipment for soil
  - sets of survey equipment for water discharge and sedimentation
  - sets of survey equipment for climate
  - photocopy machines
  - personal computer sets
6. INDRHI requested the counterpart training in Japan. The team promised to convey its request to the Government of Japan.

SANTO DOMINGO, 25 August, 1993

  
Ing. C. AUGUSTO RODRIGUEZ G.  
*Executive Director*  
*Instituto Nacional de*  
*Recursos Hidraulicos*

  
Mr. SHOICHI OGASAWARA  
*Leader,*  
*Preparatory Study Team,*  
*Japan International*  
*Cooperation Agency*

## LIST OF PARTICIPANTS

## 1. Dominican Side

Jose Tiburcio	Director, Dept. of Planning INDRHI
Valentin Cordero	Director, Internacional Cooperation Office, INDRHI
Ignacio S. Guzman	Watershed Management Engineer, INDRHI
Clever Guaroa de la Cruz	Chief, Irrigation & Drainage Division, INDRHI
Carlos M. Cabral D.	Planning Irrigation Office, INDRHI
Gilberto Reynoso	Adviser, Irrigation & Drainage, INDRHI
Dario Rivas	Chief, Project Planning Division, Instituto Agrario Dominicano
Milton Morales	Assistance, Dept. of External Resources, Secretaria de Estado de Agricultura
Yutaka Iwasaki	JICA Expert, INDRHI

## 2. Japanese Side

## Preparatory Study Team

Shoichi Ogasawara	Leader
Hidehiko Hioki	Member
Jinuemon Tatsuta	Member
Takashi Yama	Member
Tsunehiro Sasaki	Member
Isao Dojun	Member
Setsuko Otaki	Member

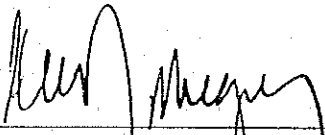
## JICA Dominican Office

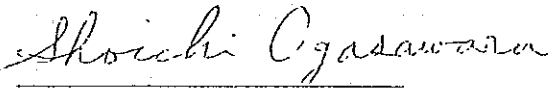
Nobukatsu Nakajima	Resident Representative
Nozomu Miyoshi	Staff
Yoshio Yanai	Local Staff
Fior Pichardo	Local Staff

S. O.

ALCANCES DE TRABAJOS  
PARA  
EL ESTUDIO DE FACTIBILIDAD  
DEL  
PROYECTO DE DESARROLLO AGRICOLA DEL AREA DE LIMON DEL YUNA  
EN  
LA REPUBLICA DOMINICANA  
ACUERDO SUSCRITO ENTRE:  
EL INSTITUTO NACIONAL DE RECURSOS HIDRAULICOS  
Y  
LA AGENCIA DE COOPERACION INTERNACIONAL DEL JAPON

SANTO DOMINGO, 25 DE AGOSTO, 1993

  
\_\_\_\_\_  
ING. C. AUGUSTO RODRIGUEZ G.  
Director Ejecutivo  
Instituto Nacional de  
Recursos Hidráulicos

  
\_\_\_\_\_  
Lic. SHOICHI OGASAWARA  
Jefe,  
Equipo de Estudio  
Preparatorio  
Agencia de Cooperación  
Internacional del Japón

## I. INTRODUCCIÓN

En respuesta a la solicitud del Gobierno de la República Dominicana, el Gobierno del Japón ha decidido realizar un estudio de factibilidad del Proyecto de Desarrollo Agrícola del Area de Limón del Yuna ( en lo adelante se denominara El Estudio ) de acuerdo a las leyes y reglamentos pertinentes vigentes en el Japón.

En consecuencia, la Agencia de Cooperación Internacional del Japón ( que en lo adelante se denominara JICA ), agencia oficial ejecutora de la implementación de los programas de cooperación técnica del Gobierno del Japón, realizara El Estudio en estrecha colaboración con las autoridades correspondientes del Gobierno de la República Dominicana.

El presente documento constituye el Alcance de Trabajos de El Estudio.

## II. OBJETIVOS DE EL ESTUDIO

Los objetivos de El Estudio son:

1. Conducir un estudio de factibilidad del Proyecto de Desarrollo Agrícola del Area de Limón del Yuna.
2. Implementar la transferencia de tecnología al personal dominicano de contrapartida en el curso de El Estudio.

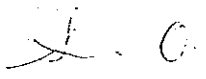

## III. ESQUEMA DE EL ESTUDIO

### 1. Area de El Estudio

El Estudio cubrirá el área de Limón del Yuna, aproximadamente 10,000 ha, en la provincia Duarte.  
(Ver el mapa de localización adjunto como Apéndice II)

### 2. Alcance de El Estudio

El Estudio cubrirá los ítemes siguientes:



- (1) Recopilación, revisión y análisis de datos e información relevantes existentes, y estudio en el sitio, en termino de:
  - 1) condiciones naturales ( topografía, vegetación, meteorología, hidrología, geología, suelo, etc.)
  - 2) condiciones socio-económicas ( población, familias, empleo, economía regional, economía de agricultores, tenencia de tierra, infraestructura rural y social, etc.)
  - 3) condiciones agrícolas ( uso de tierra, patrón de cultivo, rendimiento/producción agrícola, sistema de riego y drenaje, manejo de agua, facilidades e infraestructura agrícolas, administración de finca, procesamiento, mercadeo, organización de agricultores, servicios de apoyo agrícola incluyendo extensión y crédito agrícola, etc.),
  - 4) condiciones ambientales ( condición natural, condición social, etc.), y
  - 5) otros
- (2) Actualización del mapa existente (1/10,000) en base a las fotos aérea tomadas en 1984.
- (3) Ejecución de estudios siguientes
  - 1) estudio geológico
  - 2) estudio hidrológico
  - 3) estudio topográfico
  - 4) estudio de suelo
  - 5) estudio de familia agrícola
  - 6) estudio sobre la situación actual de riego y drenaje
  - 7) estudio ambiental
  - 8) otros

- (4) Preparación de desarrollo agrícola del área de El Estudio, incluyendo:
- 1) plan del uso de tierra y el patrón de cultivo
  - 2) plan de desarrollo de administración de finca
  - 3) plan de desarrollo de recursos hidráulicos
  - 4) plan de desarrollo de riego y drenaje
  - 5) plan de desarrollo del sistema de pos cosecha y de mercadeo
  - 6) plan de desarrollo de organización agrícola y servicio de apoyo
  - 7) diseño preliminar de facilidades principales
  - 8) itinerario de implementación del Proyecto y organización
  - 9) plan de operación y mantenimiento
  - 10) plan de protección contra inundación
  - 11) plan de conservación ambiental
- (5) Estimación de costo y beneficio del Proyecto
- (6) Evaluación del Proyecto
- (7) Recomendaciones

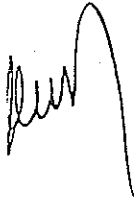
#### IV. CALENDARIO DE EL ESTUDIO

El Estudio se llevara a cabo de acuerdo con el calendario tentativo adjunto ( Apéndice I )


#### V. REPORTES

JICA preparara y someterá los siguientes reportes al Gobierno de la República Dominicana, los cuales serán en dos versiones:

- una versión completa en inglés
- una versión en español con los apéndices en inglés

 (1) Reporte Inicial

Cinco (5) copias en inglés y diez (10) copias en español al comienzo de El Estudio.



- (2) Reporte de Avance (I)  
Cinco (5) copias en inglés y diez (10) copias en español al final de la primera parte de los trabajos de campo.
- (3) Reporte Intermedio  
Cinco (5) copias en inglés y diez (10) copias en español al final de la primera parte de los trabajos en la oficina doméstica.
- (4) Reporte de Avance (II)  
Cinco (5) copias en inglés y diez (10) copias en español al final de la segunda parte de los trabajos de campo.
- (5) Borrador del Reporte Final  
Cinco (5) copias en inglés y veinte (20) copias en español dentro de un (1) mes, siguiendo el termino de la segunda parte de los trabajos de gabinete de El Estudio en Japon. El Gobierno de la República Dominicana debe proveer a JICA su comentario dentro de un mes después de la recepción del Borrador del Reporte Final.
- (6) Reporte Final  
Treinta (30) copias en inglés y cincuenta (50) copias en español dentro de dos (2) meses después de recibir el comentario sobre el Borrador del Reporte Final.

## VI. Obligaciones del Gobierno de la República Dominicana

1. Para facilitar la apropiada ejecución de El Estudio, El Gobierno de la República Dominicana tomara las medidas de lugar para:
  - (1) Garantizar la seguridad de los miembros de la Misión Japonesa.
  - (2) Permitir a los miembros de la Misión Japonesa entrar, salir y permanecer en la República durante el tiempo necesario para la realización de sus obligaciones; además gestionar la exención de los requerimientos de registro para extranjeros y el pago de las cuotas consulares.



- (3) Gestionar la exoneración a los Miembros de las Misiones Japonesas del pago de los impuestos, obligaciones y cualquier otra carga a los equipos, maquinarias y otros materiales traídos a la República Dominicana para la realización de El Estudio. Si las cargas arriba mencionadas son impuestas, esos gastos correrán por cuenta de la agencia contraparte dominicana.
- (4) Gestionar la exoneración a los Miembros de las Misiones Japonesas del pago del impuesto sobre la renta y el pago de cualquier otro impuesto sobre emolumentos u honorarios pagados a los Miembros de las Misiones Japonesas por los servicios prestados en la realización de El Estudio. Si las cargas arriba mencionadas son impuestas, esos gastos correrán por cuenta de la agencia contraparte dominicana.
- (5) Proveer las facilidades de lugar a los Miembros de las Misiones Japonesas para el envío, así como la utilización de fondos traídos a la República Dominicana para cubrir los gastos de la realización de El Estudio.
- (6) Asegurar los permisos y autorizaciones de lugar para transitar por las propiedades privadas o áreas restringidas necesarias para la realización de El Estudio.
- (7) Permitir a los Miembros de las Misiones Japonesas reunir informaciones y documentos, incluyendo fotografías relacionadas a El Estudio y llevarlos al Japón.
- (8) Facilitar los servicios médicos necesarios. Los gastos de dichos servicios serán cubiertos por los Miembros de las Misiones Japonesas.

2. El Gobierno Dominicano se hará responsable de las reclamaciones, si se presentará alguna, contra los miembros de las Misiones Japonesas que pudieren surgir como resultado del cumplimiento de sus deberes, durante o en relación con el mismo, salvo en el caso de que los dos Gobiernos se pongan de acuerdo en que tales reclamaciones se originan por faltas o

mala conducta intencional por parte de los Miembros de las Misiones Japonesas.

3. El Instituto Nacional de Recursos Hidráulicos ( que en lo adelante se denominara INDRHI ) actuara como agencia contraparte a los Miembros de las Misiones Japonesas y también como organismo coordinador entre otras organizaciones oficiales y no oficiales que tengan relación a la implementación de El Estudio.
4. El INDRHI proveerá por su propia cuenta a las Misiones Japonesas en colaboración con otras organizaciones, lo siguiente:
  - (1) Datos e informaciones disponibles relacionados a El Estudio.
  - (2) Personal contraparte.
  - (3) Una apropiada oficina equipada (electricidad, agua potable y teléfono), tanto en el sitio del Proyecto como en Santo Domingo.
  - (4) Credenciales o tarjetas de identificación.

#### VII. OBLIGACIONES DE JICA

Para la implementación de El Estudio, JICA tomara las siguientes medidas:

1. Enviar, a su propio costo, Misiones Japonesas de estudio a la República Dominicana.
2. Procurar la transferencia de tecnología al personal contraparte dominicano durante el curso de El Estudio.

#### VIII. LENGUAJE

En caso de que surja cualquier divergencia de interpretación del presente Alcance de Trabajos, el cual esta redactado tanto en inglés como en español, el texto en inglés prevalecerá.

#### IX. CONSULTACION

JICA y el INDRHI consultaran entre si con respecto a cualquier otro asunto que pudiere surgir en relación a El Estudio.



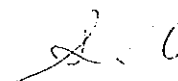
*L. C.*

### CALENDARIO TENTATIVO

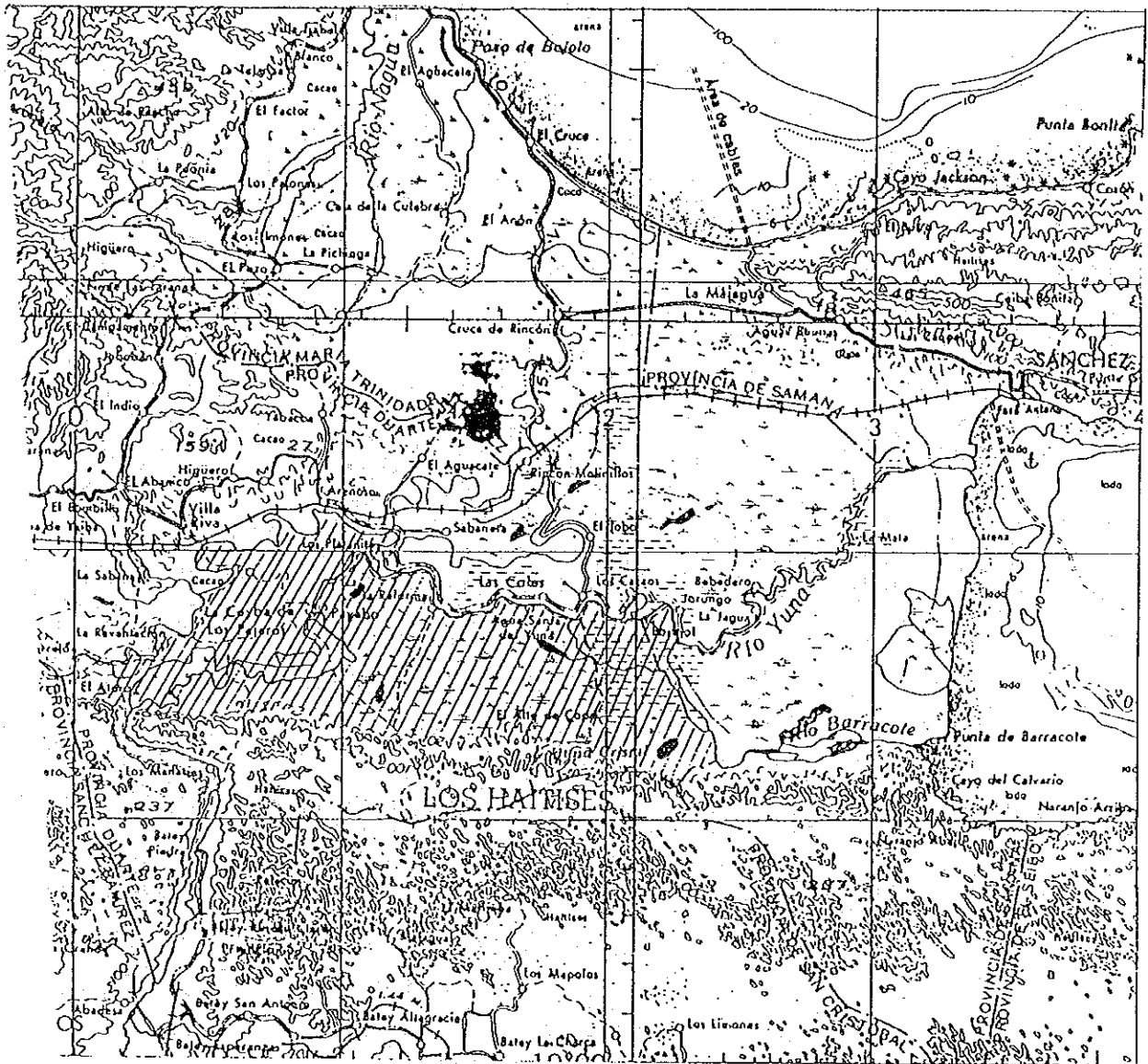
MES ITEM	MES EN ORDEN																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
ESTUDIO	————							————										——
REPORTES	△	△	△				△				△				△			
	IC/R	P/R(I)	IT/R				P/R(II)				DF/R			F/R				


NOTAS      ——— : TRABAJO DE CAMPO EN LA REPUBLICA DOMINICANA  
             ===== : TRABAJO DE GABINETE EN JAPON

IC/R: REPORTE INICIAL                      P/R(I) : REPORTE DE AVANCE(I)  
 IT/R: REPORTE INTERMEDIO                P/R(II): REPORTE DE AVANCE(II)  
 DF/R: BORRADOR REPORTE FINAL        F/R    : REPORTE FINAL

AREA DE ESTUDIO



 : Area de Estudio

ESCALA: 1/250.000

L. O.

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MINUTA DE DISCUSIONES  
SOBRE  
ALCANCE DE TRABAJO  
PARA  
EL ESTUDIO DE FACTIBILIDAD  
DEL  
PROYECTO DE DESARROLLO AGRICOLA DEL AREA DE LIMON DEL YUNA  
EN  
LA REPUBLICA DOMINICANA

El equipo de estudio preparatorio ( en lo adelante se referirá como " El Equipo ") organizado por la Agencia de Cooperación Internacional del Japón y encabezado por el Sr. Shoichi Ogasawara, visito la República Dominicana desde el 9 hasta el 28 de agosto con el fin de discutir y confirmar el Alcance de Trabajo para el Estudio de Factibilidad del Proyecto de Desarrollo Agrícola del Area de Limón del Yuna en la República Dominicana ( en lo adelante se referirá como " el Estudio " ).

El Equipo mantuvo una serie de discusiones con los funcionarios pertenecientes al Instituto Nacional de Recursos Hidráulicos ( en lo adelante se referirá como " INDRHI ") y otras organizaciones sobre el Alcance de Trabajo para el Estudio. La lista de participantes de las reuniones es adjuntada en el Anexo.

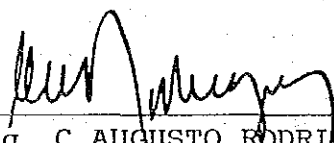
Como el resultado de las discusiones, el Equipo y el INDRHI acordaron el Alcance de Trabajo para el Estudio.

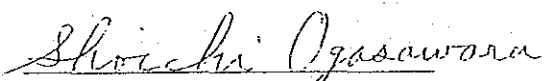
Los siguientes son los principales items discutidos y acordados por ambas partes en relación con el Alcance de Trabajo para el Estudio.

1. El INDRHI debe instalar, a su propio costo, los equipos e investigar periódicamente la descarga de agua en los manantiales propuestas y en el río Payabo, y la precipitación en los Haitises antes del Estudio, en caso que JICA provea al INDRHI de los equipos de estudio para la descarga de agua y precipitación.
2. El INDRHI debe llevar a cabo, a su propio costo, el estudio de suelo y de familias agrícolas consultando al equipo japonés de estudio.

3. El INDRHI debe facilitar al equipo japonés de estudio conductores de vehículos.
4. JICA llevara a cabo el estudio inicial ambiental (IEE) en la primera mitad del Estudio. En base al resultado de IEE, JICA decidirá en coordinacion con el INDRHI si se debe realizar o no la evaluación del impacto ambiental (EIA). Si es necesario, JICA ejecutara EIA en la segunda mitad del Estudio.
5. El INDRHI solicito que los equipos siguientes necesarios para el Estudio sean provistos por JICA y sean donados a INDRHI después del cumplimiento del Estudio. La Misión comprometió transmitir su solicitud al Gobierno de Japón.
  - vehículos
  - juegos de equipo para el estudio de nivel de agua
  - juegos de equipo para el estudio meteorológico
  - fotocopiadoras
  - juegos de equipo de computadora personal
  - equipos para estudio de suelos
6. El INDRHI solicito el entrenamiento de contrapartes. La Misión se comprometió transmitir la solicitud al Gobierno de Japón.

SANTO DOMINGO, 25 de Agosto, 1993

  
Ing. C. AUGUSTO RODRIGUEZ G.  
Director Ejecutivo,  
Instituto Nacional de  
Recursos Hidráulicos

  
Lic. SHOICHI OGASAWARA  
Jefe,  
Equipo de Estudio  
Preparatorio, Agencia  
de Cooperación Inter-  
nacional del Japón

## LISTA DE PARTICIPANTES

## 1. Lado Dominicano

José Tiburcio	Enc. Depto. Planificación INDRHI
Valentín Cordero	Enc. Oficina de Cooperación Internacional, INDRHI
Ignacio.S.Guzmán	Ing. Manejo de Cuencas, INDRHI
Clever Guaroa de la Cruz	Enc. División Riego y Drenaje, INDRHI
Carlos M. Cabral D.	Oficina Planificadora de Riego, INDRHI
Gilberto Reynoso	Asesor, Riego y Drenaje, INDRHI
Dario Rivas	Enc. Div. Planes Proyectos, Instituto Agrario Dominicano
Milton Morales	Asistente, Depto. de Recursos Externos Secretaria de Estado de Agricultura
Yutaka Iwasaki	Experto de JICA, INDRHI

## 2. Lado Japonés

## Equipo de Estudio Preparatorio

Shoichi Ogasawara	Jefe
Hidehiko Hioki	Miembro
Jinuemon Tatsuta	Miembro
Takashi Yama	Miembro
Tsunehiro Sasaki	Miembro
Isao Dojun	Miembro
Setsuko Otaki	Miembro

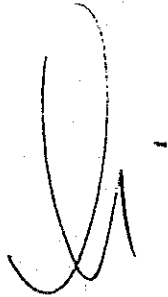
## Oficina de JICA en República Dominicana.

Nobukatsu Nakajima	Representante Residente
Nozomu Miyoshi	Personal
Yoshiro Yanai	Personal Local
Fior Pichardo	Personal Local

SCOPE OF WORK  
FOR  
THE FEASIBILITY STUDY  
ON  
THE IRRIGATION PROJECT  
IN  
RUGINESTI-PUFESTI-PANCIU DISTRICT VRANCEA

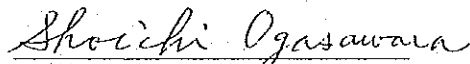
AGREED UPON BETWEEN  
MINISTRY OF AGRICULTURE AND FOOD OF ROMANIA  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY

Bucuresti, 15, December, 1993



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MR. VASILE BERBECI  
SECRETARY OF STATE  
MINISTRY OF AGRICULTURE  
AND FOOD  
DEPT. OF LAND RECLAMATION



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MR. SHOICHI OGASAWARA  
LEADER  
PREPARATORY STUDY TEAM  
JAPAN INTERNATIONAL  
COOPERATION AGENCY



## I. Introduction

In response to the request of the Government of Romania, the Government of Japan has decided to conduct the Feasibility Study on The Irrigation Project in Ruginesti-Pufesti-Panciu District Vrancea (hereinafter referred to as "the Study"), in accordance with the relevant laws and regulations in force in Japan.

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

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 conduct a Feasibility Study on the Irrigation Project in Ruginesti-Pufesti-Panciu District Vrancea.
2. to carry out technology transfer to the counterpart personnel of the Government of Romania in the course of the Study.

## III. Study Area

The total study area covers about 47,000 ha (agricultural area about 38,000 ha) located in the boundary of Ruginesti-Pufesti-Panciu project in the District Vrancea.

## IV. Scope of the Study

In order to achieve the above objectives, the Study will consist of two (2) phases and the following items.

### 1. Phase I

#### 1.1. Collection and review of existing data and information and field survey on the following items:

- (1) natural condition (topography, meteorology, hydrology, soil, water quality, water resources, etc.);
- (2) social condition (population, regional socio-economy, social infrastructure, regional development plan etc.);

- (3) agriculture (land use, land tenure, land conservation, cultivation technique, cropping pattern, production, agricultural machinery, etc);
- (4) agro economy (farmers economy, agricultural credit, processing, marketing system, etc);
- (5) agricultural infrastructures (irrigation and drainage system, farm road and rural water supply, etc);
- (6) agricultural supporting system (farmers' organizations, supporting organizations, extension service organizations, etc); and
- (7) environmental condition (natural condition, social condition, etc).

1.2. Review of the existing development plans and projects in the Study Area.

1.3. Identification and evaluation of the development potentials of irrigation and land conservation and constraints based on the results of the above survey.

## 2. Phase II

2.1. Field survey for collection of supplementary data and information of the Study areas.

2.2. Formulation of the Irrigation and agricultural development plan of the Study areas by considering the following components:

- (1) Irrigation and Drainage;
- (2) Land conservation;
- (3) Cropping pattern;
- (4) Land use;
- (5) Rural infrastructure;
- (6) Marketing system; and
- (7) Farmers' organization and supporting service.

2.3. Preparation of environmental conservation plan.

2.4. Preparation of a preliminary design of the main facilities.

2.5. Preparation of an operation and maintenance plan of the facilities.

2.6. Preparation of the project implementation plan.

2.7. Estimation of the project costs and benefits.

2.8. Evaluation of the project.

2.9. Recommendation.

#### V. Study Schedule

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

#### VI. Report

JICA shall prepare and submit the following reports in English to Romania.

1. Inception Report  
Ten (10) copies at the commencement of the Phase I field work.
2. Progress Report (1)  
Ten (10) copies at the end of the Phase I field work.
3. Interim Report  
Ten (10) copies at the commencement of the Phase II field work.
4. Progress Report (2)  
Ten (10) copies at the end of the Phase II field work.
5. Draft Final Report  
Ten (10) copies at the end of the Phase II home office work. The Romania side will provide its comments on the Draft Final Report to JICA within one (1) month after receiving the Draft Final Report.
6. Final Report  
Thirty (30) copies within two (2) months after the receipt of comments on the Draft Final Report.

VII. Undertakings of the Government of Romania.

1. To facilitate the smooth conduct of the Study, the Government of Romania 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 Romania for the duration of their assignment therein, and exempt them from visa fees;
- (3) to exempt the members of the Japanese study team from taxes, duties, fees and any other charges on equipment, machinery and other materials to be brought into and out of Romania for the conduct of the Study;
- (4) to exempt the members of the Japanese study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese study team for their services in connection with the implementation of the Study, if necessary;
- (5) to provide necessary facilities to the Japanese study team for the remittance as well as the utilization of the funds introduced into Romania from Japan in connection with the implementation of the Study, if necessary;
- (6) to secure permission for entry into private properties or restricted areas for the implementation of the Study;
- (7) to secure permission for the Japanese study team to take all data and documents (including photographs and maps) related to the Study out of Romania to Japan by the Japanese study team; and
- (8) to provide medical services as needed. Its expenses will be chargeable on the members of the Japanese study team.

2. The Government of Romania shall bear claims, if any arises, against 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. Ministry of Agriculture and Food shall act as a counterpart agency to the Japanese study team and also as coordinating body in relation with other Romanian organizations concerned for the smooth implementation of the Study.
4. Ministry of Agriculture and Food shall act as the implementing agency. It shall undertake, at its own expense, to provide the Japanese study team with the following, in cooperation with other organizations concerned;
  - (1) available data and information related to the Study;
  - (2) additional survey related to the study, if necessary;
  - (3) counterpart personnel;
  - (4) suitable office space with necessary equipment and furniture;
  - (5) 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 study team to the Romania,
- (2) to pursue technology transfer to the counterpart personnel of the Government of Romania in the course of the Study. R

#### IX. Consultation

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

TENTATIVE SCHEDULE

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Item																			
WORK IN ROMANIA		▬▬▬				▬▬▬▬▬						▬▬	○						
WORK IN JAPAN	□			▬▬▬▬					▬▬▬▬▬					▬▬▬▬					
REPORTS	△		△		△			△			△					△			
	IC/R		PR(I)		IT/R			PR(II)			DF/R					F/R			

Remarks IC/R : Inception Report PR(II) : Progress Report II  
 PR(I) : Progress Report I DF/R : Draft Final Report  
 IT/R : Interim Report F/R : Final Report  
 ○ : Comments on DF/R by Romania side

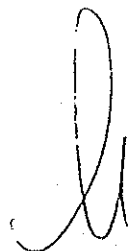
▬▬▬ : Field Work

▬▬▬ : Home Office Work

4.0

MINUTES OF MEETING  
FOR  
SCOPE OF WORK  
FOR  
THE FEASIBILITY STUDY  
ON  
THE IRRIGATION PROJECT  
IN  
RUGINESTI-PUFESTI-PANCIU DISTRICT VRANCEA  
AGREED UPON BETWEEN  
MINISTRY OF AGRICULTURE AND FOOD OF ROMANIA  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY

Bucuresti, 15, December, 1993



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MR. VASILE BERBECI  
SECRETARY OF STATE  
MINISTRY OF AGRICULTURE  
AND FOOD  
DEPT. OF LAND RECLAMATION



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MR. SHOICHI OGASAWARA  
LEADER  
PREPARATORY STUDY TEAM  
JAPAN INTERNATIONAL  
COOPERATION AGENCY

In response to the request of the Government of the Romania, the Government of Japan decided to dispatch through Japan International Cooperation Agency (hereinafter referred to as "JICA"), which is responsible for the implementation of technical cooperation programmes of the Government of Japan, the preparatory study team (hereinafter referred to as "the Team"), headed by Mr. Shoichi OGASAWARA to the Romania from December 8th to 16th, 1993 so as to discuss and exchange views on the study with Ministry of Agriculture and Food and officials concerned of the Government of Romania for the implementation of the study.

Ministry of Agriculture and Food and the Team mutually agreed to the Scope of Work on the Feasibility Study on the Irrigation Project of Ruginesti-Pufesti-Panciu District Vrancea (hereinafter referred to as "the Study"). The list of participants of the meeting is attached in ANNEX.

The following minutes were prepared to confirm the main issues discussed and matters agreed upon by both sides in connection.

1. The Team requested the Romanian side to assign the qualified and necessary number of counterpart experts for the study at its own expences and the Romanian side accepted its request.
2. The Team suggested that the Steering Committee for the Project should be organized by the concerned Ministries and Agencies. The Romanian side agreed to the idea and promised to organize the Committee.
3. The Romanian side and the Team confirmed that topographic map at the scale of 1/5,000 for the study should be prepared before commencement of the study by the Romanian side.
4. The Romanian side shall provide the Japanese study team with suitable office space with necessary equipment and furniture in Bucuresti and the study site.
5. The Romanian side shall carry out the Environmental Impact Assessment according to the Romanian laws and regulations. The Japanese study team shall provide Romanian side with basic data and information on environmental issues in the course of the study.
6. The Romanian side requested that the Romanian counterpart personnel take advantage of training in Japan related to the Study to promote an effective technology transfer. The Team promised to convey this request to the Government of Japan.



7. The Romanian side requested that the appropriate number of vehicles for the study should be arranged by JICA. The Team promised to convey the request to the Government of Japan.
8. The Romanian side requested that the equipment and machinery which would be used for smooth implementation of the Study to be transferred to the Romanian side at the end of the study. The Team promised to convey the request to the Government of Japan.
9. The Romanian side requested that the automatic control system of pumping station should be taken into consideration particularly in the course of the study. The Team promised to convey the request to the Government of Japan.
10. The Romanian side requested that reduction of the Tentative Schedule should be taken into consideration by the Japanese side. The Team promised to convey the request to the Government of Japan.

List of Participants of the Meeting

## \* Romanian side

## Ministry of Agriculture and Food

## Dept. of Land Reclamation

Mr. VASILE BERBECI

Secretary of State

Dr. LIVIU BUHOICIU

Counselor of Minister

Mr. PETRE MOROIANU

Senior Adviser

Mr. LIVIU CREANGA

Senior Adviser

ISPIF<sub>SA</sub>

Mr. VIRGIL NEACSU

General Director

Mr. MIHAI GROSU

Deputy Director

Dr. NICOLAE C POPESCU

Chief of Dept. of Soil Erosion

Mr. COMAN CORNELIU

Counselor

Mr. SIMIONESCU IANCU

Project Manager

## \* Japanese side

## Preparatory Study Team

Mr. SHOICHI OGASAWARA

Leader

Mr. AKIHIKO KUBOTA

Member

Mr. KAZUHIKO NIKI

Member

Mr. TOSHIRO YAMASHITA

Member

Mr. EIJI TAKEMORI

Member

林業水産開発調査案件

(S/W & M/M)

SCOPE OF WORK  
FOR  
THE DEVELOPMENT STUDY ON LAND REHABILITATION  
OF SEMI ARID ZONE  
IN EAST NUSA TENGGARA

AGREED UPON BETWEEN

MINISTRY OF FORESTRY

AND

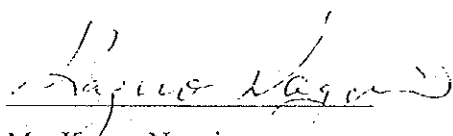
THE JAPAN INTERNATIONAL COOPERATION AGENCY

Jakarta, September 28, 1993

47

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Mr. Soebagyo Hadisepoetro  
Secretary of the Directorate  
General of Reforestation and  
Land Rehabilitation,  
Ministry of Forestry

  
Mr. Kazuo Nagai  
Leader,  
Preparatory Study Team,  
Japan International  
Cooperation Agency

## I. INTRODUCTION

In response to the request of the Government of the Republic of Indonesia, the Government of Japan decided to conduct The Development Study on Land Rehabilitation of Semi Arid Zone in East Nusa Tenggara (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

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 concerned the government of the Republic of Indonesia.

*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 land rehabilitation plan of Oesao and Oebelo sub-watersheds including social forestry plans, and
- 2) to carry out technology transfer in the course of the Study to the counterpart personnel of the Government of the Republic of Indonesia.

The intended purposes of above are to address environmental degradation, and at the same time to improve the living standard of rural people in semi-arid zone in East Nusa Tenggara.

## III. STUDY AREA

The study area covers Oesao and Oebelo sub-watersheds in East Nusa Tenggara (see appendix 1).

## IV. OUTLINE OF THE STUDY

In order to achieve the objectives mentioned above, the Study will cover the following work: (The study consists of the following three (3) phases).

### Work in phase I

1. Preparation of topographic maps in the Study area (scale 1/10,000 contour intervals 5 m) using aerial photographs taken by BAKOSURTANAL in 1991 at the scale of 1/25,000.

### Work in phase II

1. Collection and analysis of the data and information, through the field survey on the following :
  - (1) Field survey and reconnaissance
    - a) Natural condition
    - b) Social-economic condition
    - c) Forestry condition
    - d) Land use condition
  - (2) Land classification survey
    - a) Land-use and vegetation
    - b) Forest type
    - c) Soil
2. Preparation of maps in the Study area, which are as follows :
  - a) Land use and vegetation maps (scale 1/10,000)
  - b) Soil maps (scale 1/10,000)

### Work in phase III

1. Formulation of the master plan consisting of the followings:
  - a) Land use classification
  - b) Afforestation plan
  - c) Social forestry plan
  - d) Erosion control plan
  - e) Forest infrastructure plan
  - f) Brief estimation of project cost
  - g) Initial environmental examination
  - h) Study findings and recommendations
2. Preparation of the land rehabilitation plan maps (scale 1/10,000)

## V. WORK SCHEDULE

The Study shall be carried out in accordance with the attached tentative work schedule (see appendix 2).

## VI. REPORTS

JICA shall prepare and submit the following reports in English to the Government of the Republic of Indonesia.

1. Inception Report  
Thirty (30) copies at the commencement of the Study.
2. Progress Report  
Thirty (30) copies at the beginning of Phase II of the study.
3. Interim Report  
Thirty (30) copies at the beginning of Phase III of the study.
4. Draft Final Report.  
Thirty (30) copies at approximately three (3) months before submission of the Final Report. The Government of the Republic of Indonesia will provide JICA with its comments on the Draft Final Report within one (1) month after the reception of the Draft Final Report.
5. Final Report  
Fifty (50) copies, JICA will prepare the Final Report within two (2) months after the reception of the comments of the Government of Indonesia on the Draft Final Report.

In addition to the above reports, one set each of following will be submitted to the Government of the Republic of Indonesia with relevant reports.

- a) Topographic maps (scale 1/10,000 1 set)
- b) Soil maps (scale 1/10,000 1 set)
- c) Land-use vegetation maps (scale 1/10,000 1 set)
- d) Land rehabilitation plan maps (scale 1/10,000 1 set)

## VII. UNDERTAKING OF THE GOVERNMENT OF THE REPUBLIC OF INDONESIA

1. To facilitate smooth conduct of the Study, the Government of the Republic of Indonesia 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 Indonesia for the duration of their assignment therein, and exempt them from foreign 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 material brought into Indonesia for the conduct of the Study,

- (4) to exempt the member of the Japanese study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese study team for their services in connection with the implementation of the Study,
  - (5) to provide necessary facilities to the Japanese study team for remittance as well as utilization of the funds introduced into Indonesia from Japan in connection with the implementation of the Study,
  - (6) to secure permission for entry into private properties or restricted areas for the conduct of the Study,
  - (7) to secure permission for the Japanese study team to take all data and documents (including maps and permitted photographs) related to the Study out of Indonesia to Japan,
  - (8) to provide medical services as needed. Its expenses will be chargeable to members of the Japanese study team.
2. The Government of the Republic of Indonesia shall bear claims, if any arises against 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. Ministry of Forestry (hereinafter referred to as "MOF") shall act as counterpart agency to the Japanese study team and also as coordinating body in relation with other governmental and non-governmental organization concerned for the smooth implementation of the Study.
  4. MOF shall, at its own expense, provide the Japanese study team with the following, in cooperation with other organization concerned:
    - (1) available data and information related to the Study
    - (2) counterpart personnel
    - (3) suitable office space with necessary equipment in Jakarta and Kupang
    - (4) credentials or identification cards.

#### VIII. UNDERTAKING OF JICA

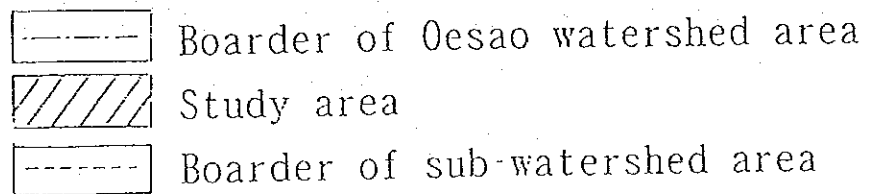
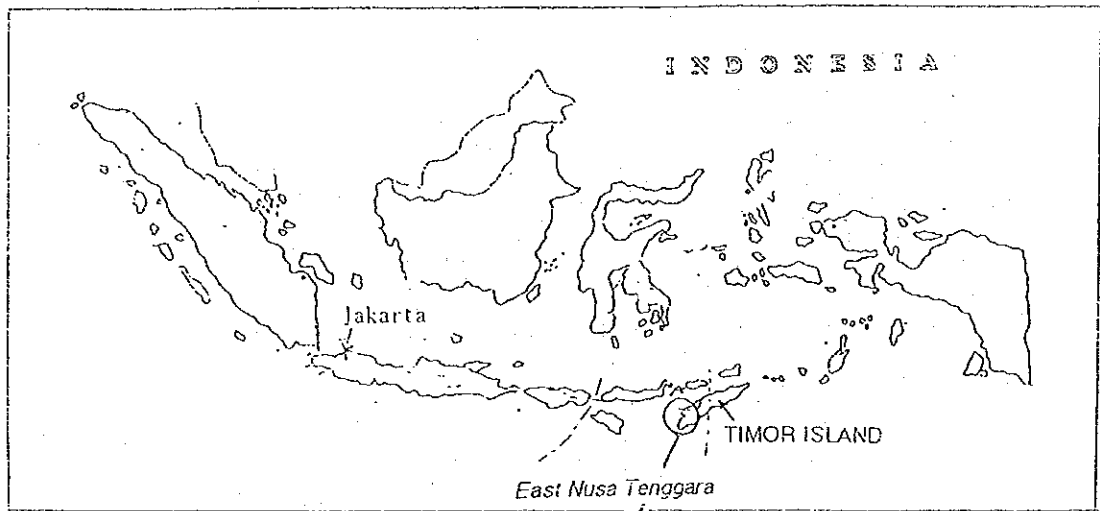
For the implementation of the Study, JICA shall take the following measures:

- (1) to dispatch, at its own expenses, study teams to Indonesia
- (2) to pursue technology transfer to the Indonesian counterpart personnel in the course of the Study.

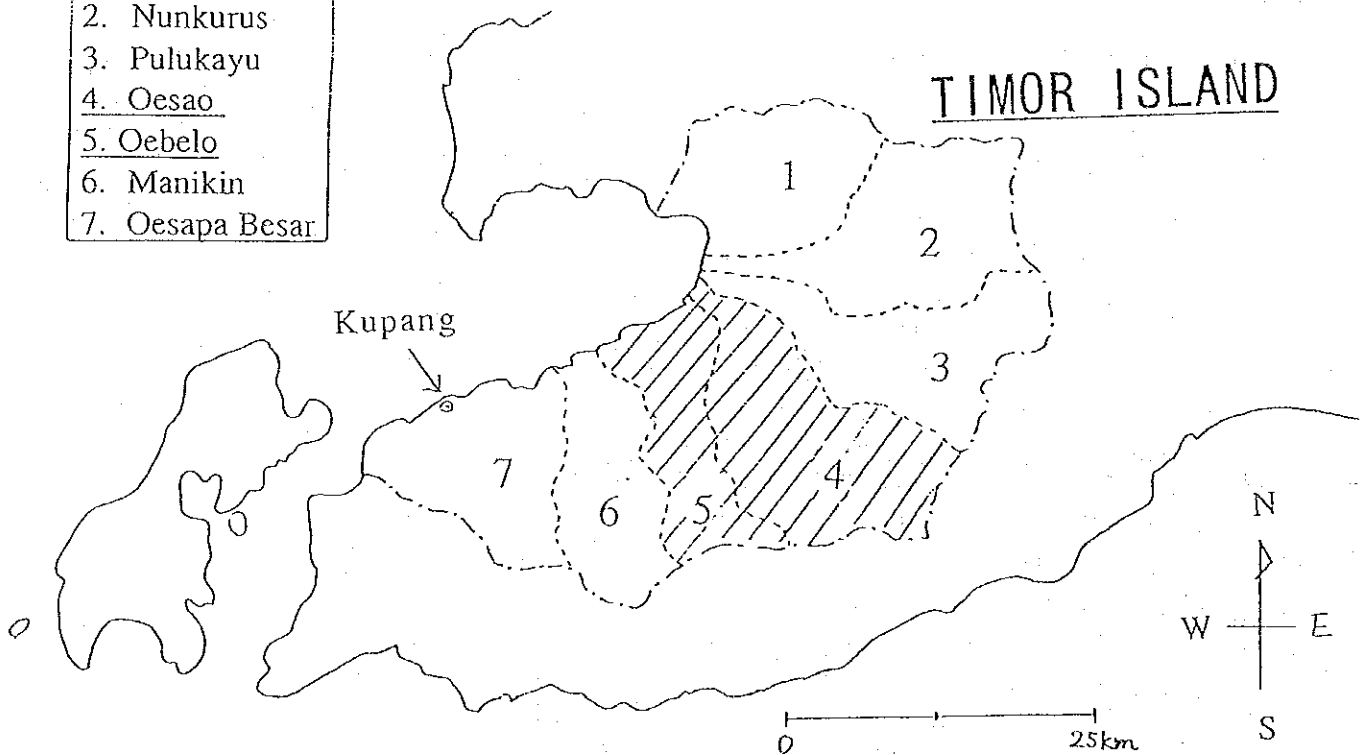
- IX. JICA and MOF shall consult with each other in respect of any matter that may arise from or in connection with the Study.



# MAP OF THE STUDY AREA



- 1. Noelbeno
- 2. Nunkurus
- 3. Pulukayu
- 4. Oesao
- 5. Oebelo
- 6. Manikin
- 7. Oesapa Besar





MINUTES OF MEETING  
OF  
SCOPE OF WORK  
THE DEVELOPMENT STUDY ON LAND REHABILITATION  
OF SEMI ARID ZONE  
IN EAST NUSA TENGGARA

The preparatory study team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA"), and headed by Mr. Kazuo Nagai, visited the Republic of Indonesia from September 19, 1993 to September 30 for the purpose of discussing and confirming the Scope of Work for The Development Study on Land Rehabilitation of Semi Arid Zone in East Nusa Tenggara (hereinafter referred to as "the Study").

The Team had a series of discussion with the officials concerned of the Ministry of Forestry (hereinafter referred to as "MOF") on the Scope of Work for the Study. The list of participants in a series of meetings is attached in the Annex 1 and 2.

As a result of the discussions, MOF and the Team agreed on the Scope of Work for the Study.

The following are the main issues discussed and agreed upon by both sides in relation to Scope of Work for the Study.

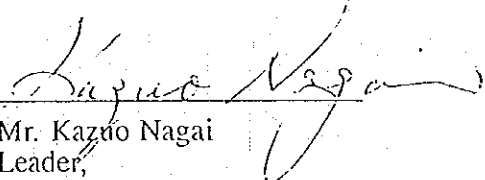
1. Both sides agreed to emphasize the socio-economic study due to the importance of the project for improvement of the living standard of the rural people.
2. MOF requested that the following equipments necessary for the Study be procured by JICA and be donated to MOF after the termination of the Study.  
The Team promised to convey its request to the Government of Japan.
  - a) Four-wheel drive vehicle(s)
  - b) Transceiver(s)
  - c) Personal computer(s)
  - d) Photocopy machine
  - e) Other necessary equipments.
3. MOF requested the counterpart training in Japan. The Team promised to convey its request to the Government of Japan.
4. JICA confirmed MOF to arrange necessary procedure about using aerial photographs of the Study area (taken by BAKOSURTANAL, 1991, scale 1/25,000).
5. MOF requested JICA to open a seminar on the result of the Study at the end of the Study period in Jakarta and Kupang.

Jakarta, September 28, 1993

47  

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Mr. Soebagyo Hadisepoetro  
Secretary of the Directorate  
General of Reforestation and  
Land Rehabilitation,  
Ministry of Forestry

---

Mr. Kazuo Nagai  
Leader,  
Preparatory Study Team,  
Japan International  
Cooperation Agency

## LIST OF PARTICIPANTS

Subject : Discussion of Scope of Work  
 Date and Time : September 20, 1993  
 Place : Ministry of Forestry, Jakarta

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No.	Name	Position
1.	Husodo Sudarisman	Director of Planning
2.	Asep Suwarna	Head Foreign Cooperation Section
3.	Slamet S. Wastra	Head Reforestation Section
4.	Harry Santoso	Head Watershed Management Section
5.	Komar	Staff of DG RLR
6.	Sulistyo	Head Bilateral Cooperation Section
7.	Yudi Sutrisno	Staff of DG RLR
8.	Sismaryadi	Social Forestry
9.	Ruspandi	Head Environmental Regreening Section
10.	Soebagjo Hadisepoetro	Secretary of DG RLR
11.	Kazuo Nagai	Leader of Mission, JICA Preparatory Study Team
12.	Akio Kagawa	Coordinator, JICA Preparatory Study Team
13.	Norihiko Shiraishi	Social Forestry, JICA Preparatory Study Team
14.	Mitsuo Takahashi	Watershed Management/Silviculture, JICA Preparatory Study Team
15.	Mitsutoshi Ide	Embassy of Japan
16.	Kenichi Shishido	JICA Indonesia Office
17.	Satoru Shimazaki	JICA Expert, Ministry of Forestry

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## LIST OF PARTICIPANTS

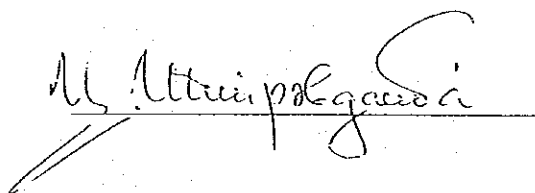
Subject : Discussion of Scope of Work  
 Date and Time : September 25, 1993  
 Place : KANWIL Kupang

No.	Name	Position	Institution
1.	Toga Siallagan	Head of Regional Forestry Depart.	Regional Forestry Depart. NTT
2.	Soetino Wibowo	Head of Programme Division Regional Forestry Department.	Regional Forestry Depart. NTT
3.	Eddy Suropto	Forest Exploitation and Utilization	Regional Forestry Depart. NTT
4.	Noviar	Planning Officer	Sub Center of Land Rehabilitation and Soil Conservation.
5.	Endang S.	Planning Officer	Sub Center of Land Rehabilitation and Soil Conservation.
6.	Djokojuwono	Head of Branch SBRLKT Kupang District	Sub Center of RLKT
7.	Suhadijono	Staff Sub BRLKT	Sub BRLKT
8.	Aloysius Abu	Staff Kanwil Kehutanan	Kanwil Kehutanan NTT
9.	Darsono	Staff Dinas Kehutanan	Dinas Kehutanan NTT
10.	Alfan Hana	Staff Sub Balai KSDA NTT	Center of Natural Resource
11.	Sutarjo S.	Kepala Balai	BPK
12.	Bazar S	Kepala Sub DIPHUT	Sub DIPHUT
13.	Komar	Staff DG RLR	Ministry of Forestry
14.	Bambang Uripno	Forestry Training Center	Kupang
15.	Yudi Sutrisno	Staff of Foreign Cooperation Section	Ministry of Forestry
16.	Iianto Bodiman	Head of Forestry Service of East Nusa Tenggara.	
17.	Kazuo Nagai	Leader of Mission	JICA Preparatory Study Team
18.	Akio Kagawa	Coordinator	JICA Preparatory Study Team
19.	Norihiko Shiraishi	Social Forestry	JICA Preparatory Study Team
20.	Mitsuo Takahashi	Watershed Management/Silviculture	JICA Preparatory Study Team
21.	Satoru Shimazaki	JICA Expert	Ministry of Forestry

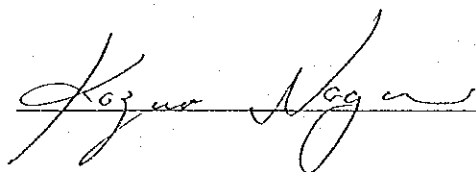
SCOPE OF WORK  
FOR  
THE FOREST RESOURCES MANAGEMENT STUDY  
IN SELENGE AIMAK  
MONGOLIA

AGREED UPON BETWEEN  
THE GOVERNMENT OF MONGOLIA  
AND  
THE JAPAN INTERNATIONAL COOPERATION AGENCY

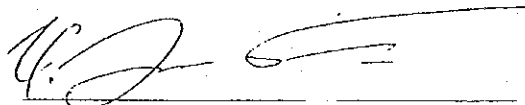
ULAANBAATAR, 20, JANUARY , 1994



MR. TSERENDULAMYN SHIREVDAMBA  
VICE MINISTER,  
MINISTRY OF  
NATURE AND ENVIRONMENT  
MONGOLIA



MR. KAZUO NAGAI  
LEADER,  
PREPARATORY STUDY TEAM  
JAPAN INTERNATIONAL  
COOPERATION AGENCY  
JAPAN



MR. CH. ENEBISH  
DIRECTOR OF DEPARTMENT  
MINISTRY OF  
TRADE AND INDUSTRY  
MONGOLIA

## 1. INTRODUCTION

In response to the request of the Government of Mongolia, the Government of Japan has decided to conduct the Forest Resources Management Study in Selenge Aimak, Mongolia (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

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 concerned of the Government of Mongolia.

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

## 2. OBJECTIVES OF THE STUDY

The objectives of the Study are :

- (1) to assess the forest condition in Selenge Aimak so as to prepare guide-lines for the formulation of a forest management plan and to formulate a model forest management plan,
- (2) to carry out technology transfer in the course of the Study to the counterpart personnel of the Government of Mongolia,  
and thus contribute to the strengthening of forest management capability, sustainable forest management and environmental conservation in Mongolia.

## 3. STUDY AREA

- (1) The Study Area covers all areas of Selenge Aimak - approximately 4.28 million hectors. (APPENDIX-1)
- (2) The Intensive Area within the Study Area is approximately 160,000 hectors. (APPENDIX-1)
- (3) In the course of the Study, Model Area(s) will be selected within the Intensive Area. The total area of the Model Area(s) will be approximately 30,000 hectors.

## 4. OUTLINE OF THE STUDY

The Study will consist of the following three phases. Work plans in each phase are as follows.

### 4-1 Work in Phase 1

- (1) Collection of data and information on the Study Area.
  - a. Natural conditions
  - b. Socio-economic conditions
  - c. Forest conditions
- (2) An investigation of the Landsat Data in order to survey land cover conditions in the Study area.
- (3) Aerial photographing (1/25,000) of the Intensive Area
- (4) Collection of data and field survey of the Intensive Area.
  - a. Natural conditions
  - b. Socio-economic conditions
  - c. Forest Type and vegetation
  - d. Existing forestry conditions
- (5) Formulation of guide lines of the forest management plan
  - a. Standard of forest classification

AC. 111

- b. Standard of forest operation
  - c. Forest management unit and system
  - d. Process of formulation of the forest management plan
- (6) Preparation of maps
- a. Land cover map of the Study Area
  - b. Topographic map of the Intensive area using SPOT data
  - c. Land use and vegetation map of the Intensive Area
  - d. Topographic map of the Model Area

#### 4-2 Work in phase 2

- (1) Forest resources survey of the Model area(s)
- a. Forest type and vegetation
  - b. Natural regeneration
  - c. Volume
  - d. Soil
  - e. other
- (2) Formulation of forest management plans for the Model area(s)
- a. Forest classification
  - b. Forest management unit and system
  - c. Logging
  - d. Afforestation
  - e. Forest Protection
  - f. Forest roads
  - g. other
- (3) Preparation of the maps and books of the Model Area(s)
- a. Forest type map
  - b. Soil map
  - c. Forest management plan map
  - d. Forest inventory book

#### 4-3 Work in phase 3

- (1) Field survey for verification of the forest management plan for Model Area

#### 4-4 Others

- (1) Holding a seminar on the result of the Study at the end of phase 3

#### 5. Work schedule

The study shall be carried out in accordance with the attached tentative work schedule.  
(APPENDIX -2)

#### 6 Reports

JICA shall prepare the following reports in English for the Government of Mongolia.  
(APPENDIX -2)

- (1) Inception Report:  
twenty (20) copies at the beginning of phase 1 field work.
- (2) Progress Report:  
twenty (20) copies at the end of phase 1 study.
- (3) Interim Report:  
twenty (20) copies at the end of phase 2 study.



- (4) Draft Final Report :  
 twenty (20) copies at the end of phase 3 study. The Government of Mongolia will provide JICA with its comments on the Draft Final Report within one (1) month after receipt of the Draft Final Report.
- (5) Final Report :  
 fifty (50) copies within two (2) months after receipt of the comments from the Government of Mongolia on the Draft Final Report.
- (6) Maps and others
- a. Study Area  
 Land cover map (scale ; 1/250,000 1 set)
  - b. Intensive Area  
 Topographic map (scale ; 1/50,000 1 set)  
 Negative films (scale ; 1/25,000 1 set) and Contact prints (scale ; 1/25,000 1 set)  
 Land use and vegetation map (scale ; 1/50,000 1 set)
  - c. Model Area  
 Topographic map (scale ; 1/25,000 1 set)  
 Forest type map (scale ; 1/25,000 1 set)  
 Soil map (scale ; 1/25,000 1 set)  
 Forest management plan map (scale ; 1/25,000 1 set)  
 Forest inventory books ( 1 set )

#### 7. UNDERTAKING OF THE GOVERNMENT OF MONGOLIA

- (1) To facilitate the smooth conduct of the Study, the Government of Mongolia shall take necessary measures ;
- a. to secure the safety of the Japanese study team,
  - b. to permit the members of the Japanese study team to enter, leave and sojourn in Mongolia for the duration of the their assignment therein, and exempt them from foreign registration requirements and fees,
  - c. to exempt the members of the Japanese study team from taxes, duties and other charges on equipment, machinery and other materials brought into Mongolia for the conduct of the Study,
  - d. to exempt the members of the Japanese study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese study team for their services in connection with the implementation of the Study.
  - e. to provide necessary facilities to the Japanese study team for the remittance as well as utilization of the funds introduced into Mongolia from Japan in connection with the implementation of the Study,
  - f. to secure permission for entry into private properties or restricted areas for the conduct of the Study.
  - g. to secure permission for the Japanese study team to take all data and documents (including aerial photographs and their positive films) related to the Study out of Mongolia to Japan,
  - h. to provide medical services as needed, whose expenses will be charged on members of the Japanese study team,
  - i. to secure clearance for the use of communication facilities including transceivers,
  - j. to secure permission for felling the trees and collecting the plants necessary for the implementation of the Study.

- (2) The Government of Mongolia shall bear claims, if any arise against 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 Ministry of Nature and the Environment shall act as a counterpart agency to the Japanese study team and also as the coordinating body in relations with other governmental and non-governmental organizations concerned with the smooth implementation of the Study. Research Institute for forestry and wildlife, Ministry of Nature and Environment has all responsibilities for the implementation of the Study.
- (4) The Ministry of Nature and the Environment shall, at its own expense, provide the Japanese study team with the following, in cooperation with other organizations concerned:
  - a. available data, maps and information related to the Study,
  - b. counterpart personnel,
  - c. suitable office space with necessary equipment in Ulaanbaatar and Sukhbaatar,
  - d. credentials or identification cards,

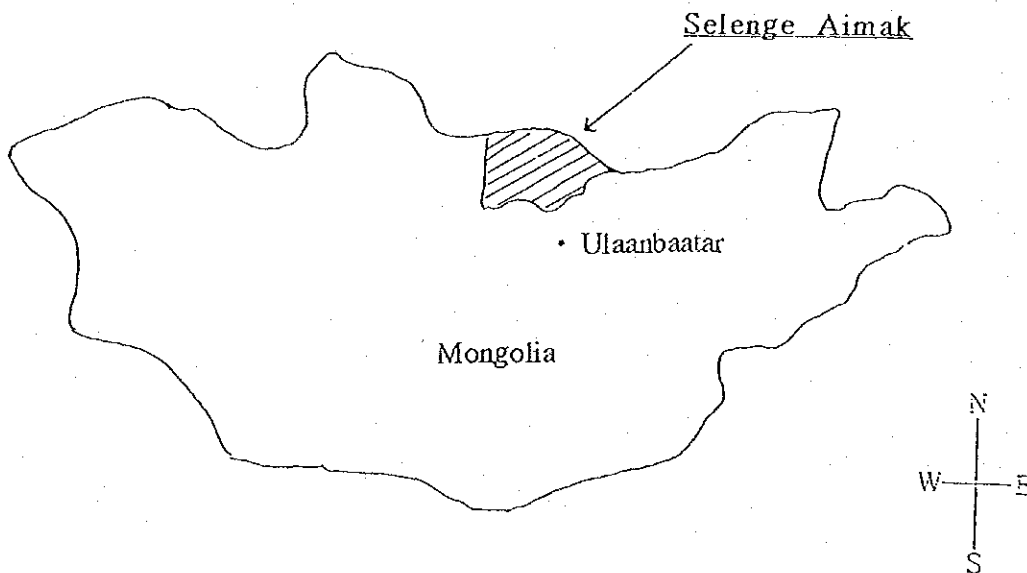
#### 8. UNDERTAKING OF JICA

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

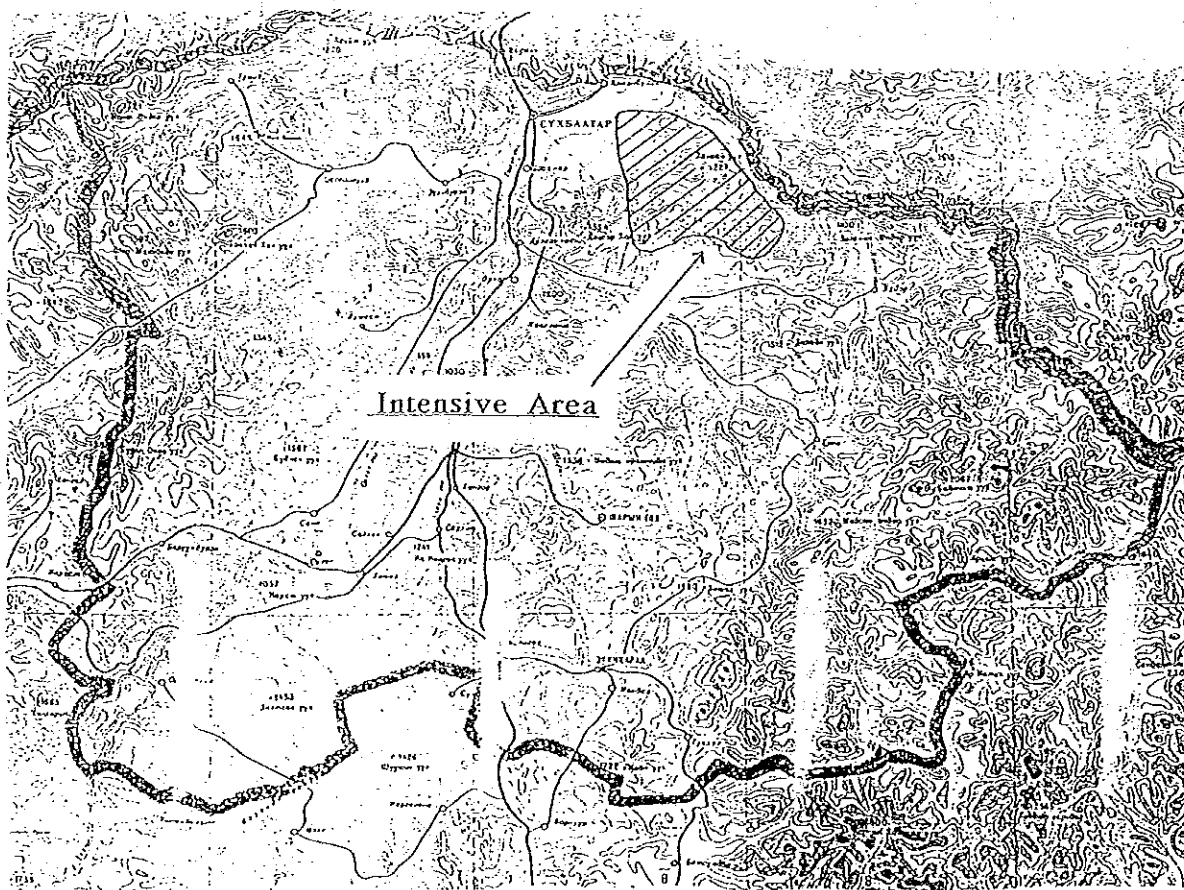
- (1) To dispatch, at its own expense, the study teams to the Mongolia,
- (2) To pursue technology transfer to the Mongolia counterpart personnel in the course of the study.

#### 9. OTHERS

- (1) JICA and the Ministry of Nature and the Environment shall consult with each other on any matter that may arise from or in connection with the Study.

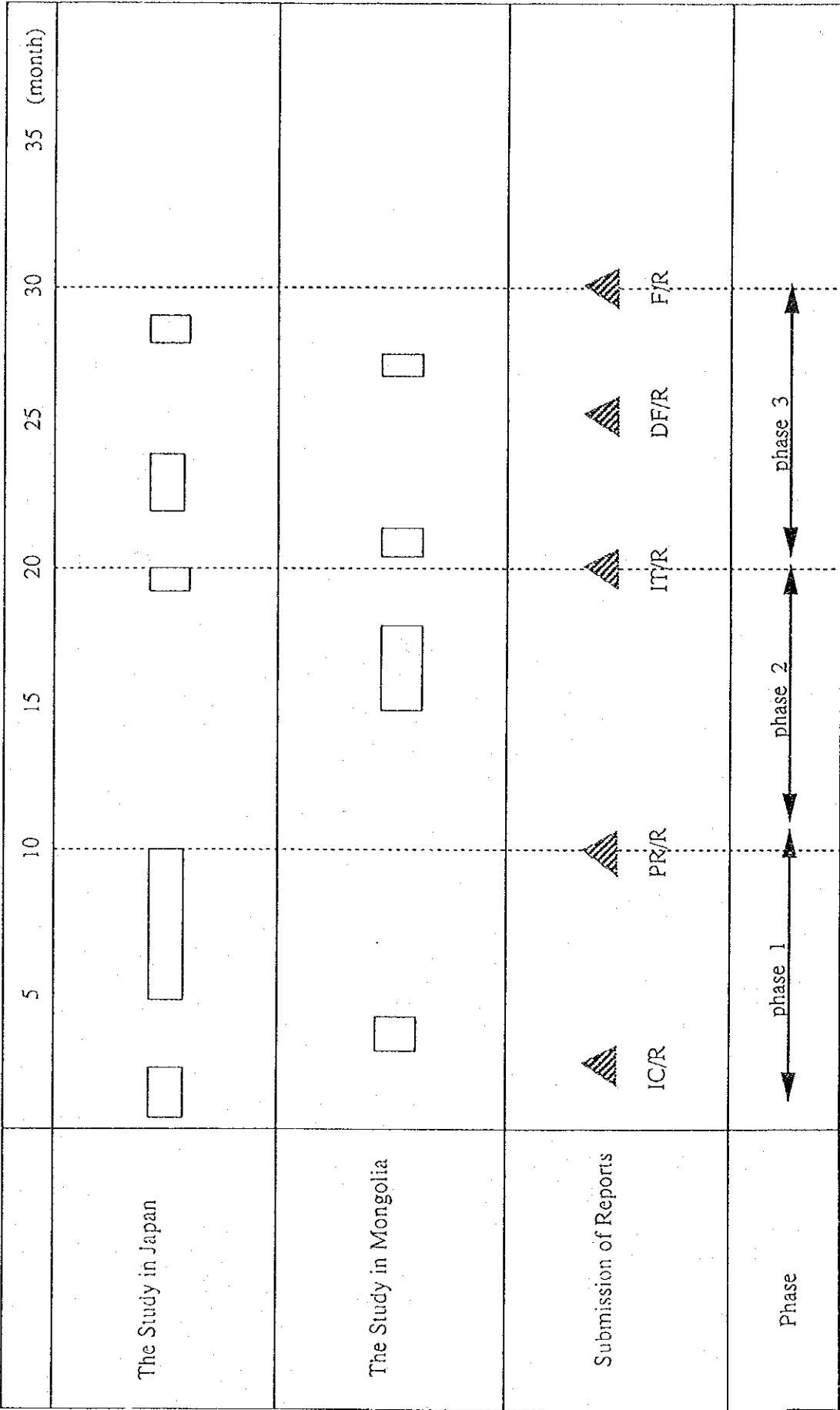


Site for the Study Area and the Intensive Area



15.11.11

( APPENDIX -2.) Tentative Work Schedule of the Study



Note : IC/R ; Inception Report PR/R ; Progress Report DF/R ; Draft Final Report F/R ; Final Report

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MINUTES OF MEETING  
OF  
SCOPE OF WORK  
FOR  
THE FOREST RESOURCES MANAGEMENT STUDY  
IN SELENGE AIMAK,  
MONGOLIA

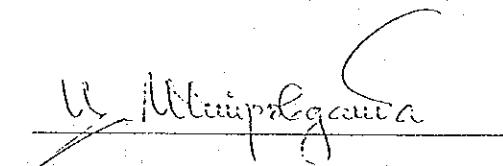
The preparatory study team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA"), and headed by Mr. Kazuo Nagai, visited Mongolia from January 12, 1994 to January 21 for the purpose of discussing and confirming the Scope of Work for The Forest Management Study in Selenge Aimak, Mongolia (hereinafter referred to as "the Study").

The Team had a series of discussions with the officials concerned of the Ministry of Nature and Environment (hereinafter referred to as "MNE") on the Scope of Work for the Study. The list of participants in a series of meetings is attached in the ANNEX-2.

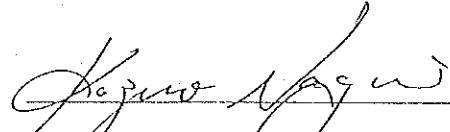
As the result of discussions, MNE and the Team agreed on the Scope of Work for the Study.

The main issues discussed and agreed upon by both sides in relation to Scope of Work for the Study are shown in the ANNEX-1 as attached hereto.

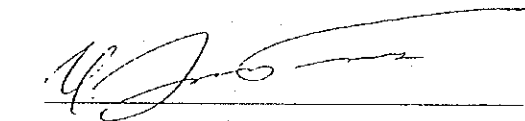
Ulaanbaatar, January 20, 1994



MR. TSERENDULAMYN SHIREVDAMBA  
VICE MINISTER  
MINISTRY OF  
NATURE AND ENVIRONMENT  
MONGOLIA



MR. KAZUO NAGAI  
LEADER,  
PREPARATION STUDY TEAM  
JAPAN INTERNATIONAL  
COOPERATION AGENCY  
JAPAN



MR. CH. ENEBISH  
DIRECTOR OF DEPARTMENT  
MINISTRY OF  
TRADE AND INDUSTRY  
MONGOLIA

ANNEX-1

The following are the main issues discussed and agreed upon by both sides in relation to the Scope of Work for the Study.

1. Both sides confirmed that the Study aims to formulate the forest management plan which contribute to the conservation of the both natural and socio-economic environment itself, and there is no important matters on the environmental considerations for the implementation of the Study.
2. MNE requested the counterpart training in Japan, and the person who would be dispatched should be related to the Study. The Team promised to convey its request to the Government of Japan.
3. MNE requested that the following equipments necessary for the Study be procured by JICA and be donated to MNE after the termination of the Study.  
The Team promised to convey its request to the Government of Japan.
  - a) Four-wheel drive vehicle(s)
  - b) Transceiver(s)
  - c) dynamo(s)
  - d) Personal computer(s)
  - e) Photocopy machine(s)
  - f) Planimeter(s)
  - g) Other necessary equipments. (Mirror stereoscopes, Diameter gauges, Increment borers, Dendrometers, Pocket cameras, Camping goods, etc.)
4. MNE requested JICA to open a seminar on the result of the Study at the end of the Study period at Ulaanbaatar.
5. MNE promised to offer suitable office space with necessary equipment in Ulaanbaatar and Suhkbaatar.
6. The Mongolian side promised the Team to secure necessary permissions from the authorities concerned for taking aerial photographs related to the Study.
7. MNE requested JICA to formulate the volume table of pinus siberica which is located outside of the Intensive Area, but very important in Selenge Aimak on the forest management. The Team promised to convey its request to the Government of Japan.
8. MNE requested JICA to provide opportunity to counterpart personnel for joint studying on processing of maps and compiling data in Japan in addition to the ordinaly counterpart training in Japan. The Team explained its difficulty to accept the request under the technical cooperation scheme, but promised to convey the request to the Government of Japan that there was the request from MNE.

M. Ail.



ANNEX-2

LIST OF PARTICIPANTS

Subject : Discussion of Scope of Work  
Date and Time: From January 13 to January 18, 1994  
Place : Ministry of Nature and Environment, Ministry of Trade and Industry,  
State Administration of Geodesy and Cartography

No.	Name	Position
1.	D. Enkhsaikhan	Chairman of Forest and hunting state service, MNE
2.	O. Bolor	Chief Expedition Forest, Research Institute for forestry and wildlife
3.	L. Nasanbuyan	Assistant of Director, Ministry of Trade and Industry
4.	B. Bayasgalan	Department of Industrial Policy, Ministry of Trade and Industry
5.	Z. Sanzhaazhamts	President, State Administration of Geodesy and Cartography
6.	K. Nagai	Leader of Mission, JICA Preparatory Study Team
7.	N. Asakawa	Coodinator, JICA Preparatory Study Team
8.	S. Hukuda	Forest management / Environment, JICA Preparatory Study Team
9.	R. Suzuki	Forest study, JICA Preparatory Study Team
10.	K. Kagawa	First secretary, Embassy of Japan

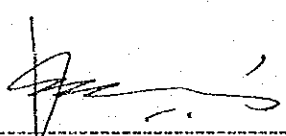
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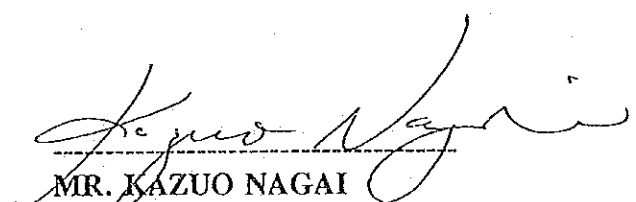
SCOPE OF WORK  
FOR  
THE MASTER PLAN STUDY ON FOREST PLANTATION  
DEVELOPMENT IN NORTHERN SABAH  
IN  
MALAYSIA

AGREED UPON  
BY  
THE ECONOMIC PLANNING UNIT  
PRIME MINISTER'S DEPARTMENT  
ON BEHALF OF  
THE GOVERNMENT OF MALAYSIA  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY

KUALA LUMPUR, OCTOBER 15, 1992



-----  
MR. KASSIM BIN SARBANI  
DIRECTOR,  
AGRICULTURE SECTION,  
ECONOMIC PLANNING UNIT,  
PRIME MINISTER'S DEPARTMENT,  
MALAYSIA.



-----  
MR. KAZUO NAGAI  
LEADER,  
PREPARATORY STUDY TEAM,  
JAPAN INTERNATIONAL  
COOPERATION AGENCY.



## I. INTRODUCTION

In response to the request from the Government of Malaysia, the Government of Japan has decided to conduct the Master Plan Study on Forest Plantation Development in Northern Sabah (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

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

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

## II. OBJECTIVE OF THE STUDY

The objective of the Study is to formulate a master plan for forest plantation development in Northern Sabah with the aim of increasing the forest resources base and improving the socio-economic situation of the people in the area on a sustainable basis.

## III. STUDY AREA

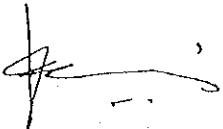
The Study area covers the SAFODA project land and other potential areas for forest development in Northern Sabah (See Appendix I).

## IV. OUTLINE OF THE STUDY

In order to achieve the objective mentioned above, the Study will cover the following works:

- (1) Aerial photography (scale 1/25,000) of the Study area excluding the Bengkoka forest plantation area, forest reserves, army area and state parks.
- (2) Collection of the existing data and information, and field survey on the following items:
  - (a) National policy and plan on forestry, environment and regional development,
  - (b) Natural conditions and socio-economic situation of the Study area,
  - (c) Present conditions of land use, vegetation, soil and others of the Study area,
  - (d) Inventory of the existing forests resources of the Study area excluding forest reserves, and
  - (e) Other information on forestry such as infrastructure, labor availability, market potential, research and extension, forest technology.
- (3) Preparation of maps and others excluding the Bengkoka forest plantation area, forest reserves, army area and state parks, as follows:
  - (a) Forest base map of the Study area (1/50,000) which will be traced from the existing topographic map (1/50,000).
  - (b) Land use/vegetation map status quo drawn on the forest base map (1/50,000).

- (c) Implementation map of the Master Plan drawn on the land use/vegetation map (1/50,000).
  - (d) Forest inventory books of the Study area excluding forest reserve.
- (4) Formulation of the Master Plan to the year 2020 for forest plantation development consisting of the followings:
- (a) Classification of the Study area,
  - (b) Forest resources survey,
  - (c) Planting and logging plan,
  - (d) Forestry infrastructure plan,
  - (e) Market identification,
  - (f) Brief estimation of the cost-benefit analysis and financial plan,
  - (g) Initial environmental examination (IEE), and
  - (h) Study findings and recommendations.
- (5) Holding a seminar on the results of the Study at the end of the Study period in Sabah.



## V. WORK SCHEDULE


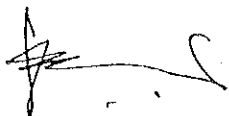
The study will be carried out in accordance with the attached tentative schedule (see APPENDIX II).

## VI. REPORTS

JICA will prepare and submit the following reports in English to the Government of Malaysia:

- (1) Inception Report  
Twenty (20) copies at the beginning of the Study in Malaysia.
- (2) Progress Report I  
Twenty (20) copies within six (6) months after the beginning of the Study.
- (3) Progress Report II  
Twenty (20) copies within twelve (12) months after the beginning of the Study.
- (4) Interim Report  
Twenty (20) copies within eighteen (18) months after the beginning of the Study.
- (5) Draft Final Report  
Twenty (20) copies within twenty one (21) months after the beginning of the Study. The Government of Malaysia will provide JICA with comments within one (1) month after receiving the report.

- (a) Inform the members of the Study team any existing risk in the Study area and to take any measures deemed necessary to secure the safety of the Study team,
- (b) Ensure the necessary entry permits for the Study team to conduct field surveys in Malaysia and exempt them from consular fees,
- (c) Exempt the members of the Study team from taxes and duties, as normally accorded under the provision of Malaysian General Circular No. 1 of 1979, on equipment, machinery and other materials brought into and out of Malaysia for the conduct of the Study,
- (d) Exempt the non-Malaysian members of the Study team from Malaysian income tax on their official emoluments in respects of their period of assignment in Malaysia in connection with the conduct of the Study, but the Government of Malaysia shall retain the right to take such emoluments into account for the purpose of assessing the amount to be applied to income from other sources,
- (e) Provide necessary facilities to the Study team for the remittance as well as the utilization of funds introduced into Malaysia from Japan in connection with the implementation of the Study,
- (f) Secure permission for entry into private properties or restricted areas for the implementation of the Study,
- (g) Secure permission for felling trees and collecting plants necessary for the implementation of the Study,



- (d) Credentials or identification cards, and
- (e) Vehicles with drivers and other supporting services necessary for the implementation of the Study.

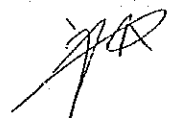
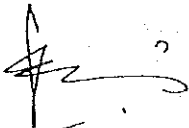
#### VIII. UNDERTAKING OF JICA

For the implementation of the Study, JICA will take necessary measures to:

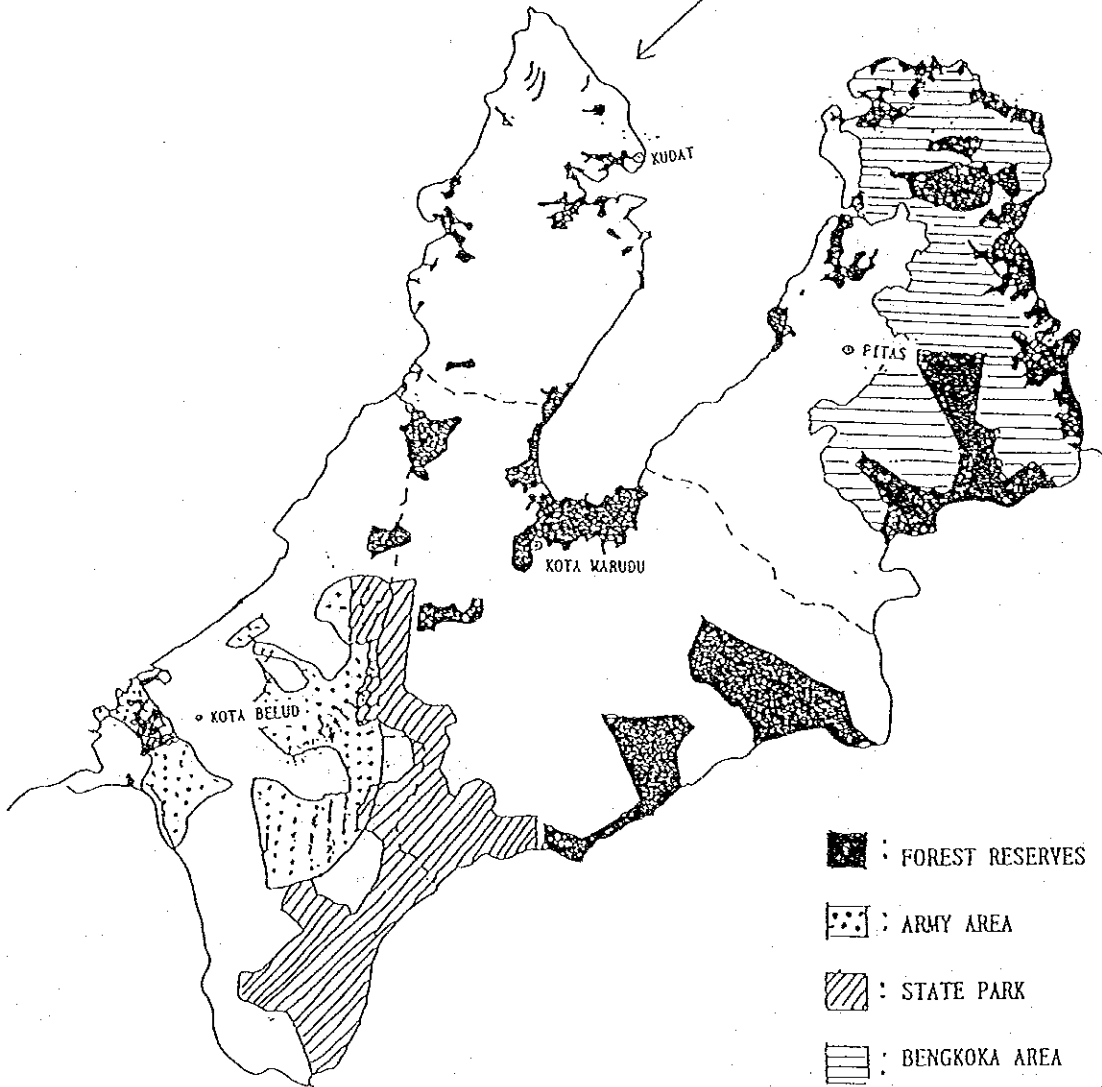
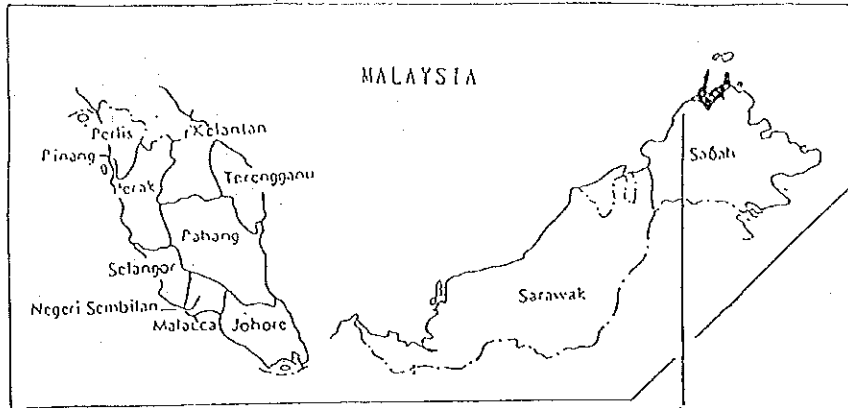
- (1) Dispatch, at its own expense, study teams to Malaysia, and
- (2) Pursue technology transfer to the Malaysian counterpart personnel in the course of the Study.





#### IX. CONSULTATION

JICA, the Economic Planning Unit (EPU) and SAFODA will consult with each other in respect of any matter that may arise from or in connection with the Study.



APPENDIX I



	: FOREST RESERVES	55,000 Ha
	: ARMY AREA	33,000 Ha
	: STATE PARK	37,000 Ha
	: BENGKOKA AREA	50,000 Ha
	OTHERS	365,000 Ha
	<b>TOTAL</b>	<b>540,000 Ha</b>

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APPENDIX II

TENTATIVE SCHEDULE

==== HOME WORK IN JAPAN  
 ■■■■ FIELD WORK IN MALAYSIA

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
HOME WORK																								
IN JAPAN																								
.....																								
FIELD WORK																								
IN MALAYSIA																								
REPORT		IC/R				PR/R I				PR/R II							IT/R				DF/R		F/R	



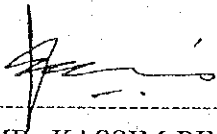
MINUTES OF MEETING  
ON  
THE SCOPE OF WORK  
FOR  
THE MASTER PLAN STUDY ON FOREST PLANTATION DEVELOPMENT  
IN  
NORTHERN SABAH IN MALAYSIA

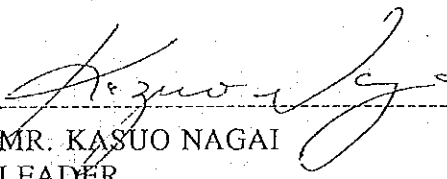
In response to the request of the Government of Malaysia, the Government of Japan decided to conduct the Master Plan Study on Forest Plantation Development in Northern Sabah (hereinafter referred to as "the Study") and the Japan International Cooperation Agency (hereinafter referred to as "JICA"), dispatched the Preparatory Study Team (hereinafter referred to as "the Team") headed by Mr. Kazuo Nagai, Director of Forestry and Fisheries Development Study Division, Agriculture, Forestry and Fisheries Development Study Department, JICA.

The Team and officials concerned of the Government of Malaysia, headed by Mr. Kassim bin Sarbani, Director of Agriculture Section, Economic Planning Unit (EPU), Prime Minister's Department had a series of discussions and exchanged their views on the Scope of Work (hereinafter referred to as "the S/W") for the Study. Consequently, both sides agreed on the S/W on October 15, 1992.

Both sides confirmed that the matters mentioned in Annex I are the results of the discussions.

KUALA LUMPUR, OCTOBER 15, 1992

  
-----  
MR. KASSIM BIN SARBANI  
DIRECTOR,  
AGRICULTURE SECTION,  
ECONOMIC PLANNING UNIT,  
PRIME MINISTER'S DEPARTMENT,  
on behalf of  
THE GOVERNMENT OF MALAYSIA.

  
-----  
MR. KAZUO NAGAI  
LEADER,  
PREPARATORY STUDY TEAM,  
on behalf of  
JAPAN INTERNATIONAL  
COOPERATION AGENCY.

## ANNEX I

### 1. The Study Area

The Study area will be classified and divided into a few divisions according to the socio-economic and natural conditions in the course of the Study. The Bengkoka forest plantation area (hereinafter referred to as "the Bengkoka area"), where the feasibility study of the plantation has already been undertaken by SAFODA, would be one of the divisions. The result of the feasibility study of the Bengkoka area can be integrated into the Study.

### 2. Plantation Species

Acacia Mangium is the only species afforested in the Northern Sabah at present. However, based on the concept of sustainable management in the Master Plan, species other than the Acacia Mangium could be planted.

### 3. Forestry Infrastructural Plan

Coverage of the Master Plan of infrastructure is forestry related activities that represent from afforestation to logging. The Master Plan could advise the other necessary infrastructural matter so that the overall development of the area flow smoothly.

### 4. Aerial Photographs

Aerial photographs to be taken is approximately 365,000 ha. The Technical Committee will decide the exact boundary of the area to be taken by aerial photography.



## 5. Home Work in Japan

Based on the results of the field work, home work in Japan will be carried out to provide following maps and others:

- 1) Land use/vegetation map (1/50,000)
- 2) Implementation map of the Master Plan (1/50,000)
- 3) Forestry inventory book

## 6. Transfer of Technology

The Government of Malaysia will assign necessary number of counterpart personnel throughout the Study so that the transfer of technology can be conducted smoothly. The modus operandi of the transfer of technology should be discussed in detail by the Technical Committee.

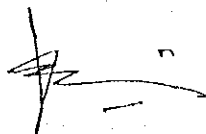
## 7. Counterpart Training in Japan

The Team agreed to consider favourably the request of Malaysian side to accept Malaysian counterpart(s) for training.

## 8. Equipments

Malaysian side also requested the procurement of the following equipments for the smooth conduct of the Study, and the Team promised to convey the request to the Government of Japan:

- 1) Four-wheel drive vehicle(s)
- 2) Transceiver(s)
- 3) Personal computer(s)
- 4) Mapping equipment(s)
- 5) Photocopy machine(s)



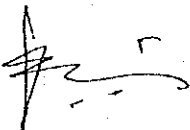
## 9. Technical Committee

A Technical Committee will be established based on the following Terms of Reference:

- 1) to study and vet the technical inputs of the Study,
- 2) to coordinate the inputs on technical aspects from the various departments/agencies in the Study,
- 3) to provide guidelines/advice to the Team, and
- 4) to monitor and ensure the effective transfer of technology by the Team to the Malaysian counterparts.

The Technical Committee shall comprise the following members:

- Chairman : SAFODA
- Members :
- 1) Federal Development Department,
  - 2) Office of Natural Resources,  
Chief Minister's Department, Sabah,
  - 3) State Development Department, Sabah,
  - 4) Ministry of Agriculture and Fisheries, Sabah,
  - 5) State Forestry Department, Sabah,
  - 6) Land and Survey Department, Sabah,
  - 7) Consulate of Japan in Kota Kinabalu,
  - 8) JICA Study Team, and
  - 9) JICA Malaysia Office.
- Secretariat : SAFODA



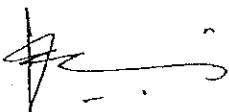

Other members will be co-opted when deemed necessary.

10. **Other Matters**

The Study will be carried out fully utilizing applicable experience and findings from Sabah Re-afforestation Technical Development and Training Project.

11. **Participants**

List of participants in a series of discussions is attached as in Appendix I.

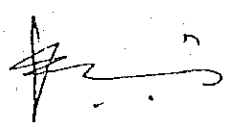


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Members of the Malaysian Delegation

1. Mr. Kassim bin Sarbani,  
Director, Agriculture Section,  
Economic Planning Unit (EPU),  
Prime Minister's Department.
2. Mr. Syed Jamal bin Syed Jaafar,  
Deputy Director,  
Federal Development Department, Sabah.
3. Mr. Jihek bin Hj. Basanu,  
Federal Development Department, Sabah.
4. Mrs. Aimi Lee Abdullah,  
Assistant Secretary,  
Ministry of Primary Industries.
5. Mrs. Monica Yee,  
State Development Department, Sabah.
6. Mr. Blaise Yapp,  
General Manager, SAFODA.
7. Mr. Francis G. Otigil,  
Controller of Plantation, SAFODA.
8. Mr. Mohd Fadzil bin Akram,  
Principal Assistant Director,  
Agriculture Section,  
Economic Planning Unit (EPU).
9. Mr. Alias bin Simin,  
Assistant Director,  
Agriculture Section,  
Economic Planning Unit (EPU).




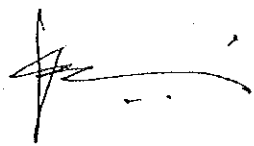
## Members of the Japanese Delegation

### Mission:

1. Mr. Kazuo Nagai,  
Director,  
Forestry and Fisheries Development Study Division,  
Agriculture, Forestry and Fisheries Development  
Study Department,  
JICA.
2. Mr. Eisho Sato,  
Counselor for Research Planning,  
Research and Extension Division,  
Forestry Agency.
3. Mr. Naoya Ikeda,  
Section Chief,  
Forestry Infrastructure Division,  
Forestry Agency.
4. Mr. Isao Miyagi,  
Senior Technical Officer,  
International Cooperation Division,  
Ministry of Agriculture, Forestry and Fisheries (M.A.F.F.).
5. Mr. Shoichiro Inoue,  
Consulting Engineer,  
CRC Research Inc.
6. Mr. Akira Matsuda,  
Junior Expert,  
Forestry and Fisheries Development Study Division,  
JICA.

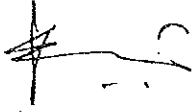

### Embassy of Japan:

1. Mr. Hidenao Sawayama,  
Second Secretary,  
Embassy of Japan.
2. Mr. Makio Shichijo,  
Second Secretary,  
Embassy of Japan.



JICA Malaysia Office:

1. Mr. Toshiyuki Arita,  
Assistant Resident Representative,  
Japan International Cooperation Agency,  
JICA Malaysia Office.

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SCOPE OF WORK  
FOR  
THE STUDY ON REGIONAL REFORESTATION  
PLAN FOR FUELWOOD PRODUCTION  
IN  
THE KINGDOM OF MOROCCO

AGREED UPON

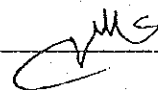
THE MINISTRY OF AGRICULTURE  
AND AGRARIAN REFORM

DEPARTMENT OF FORESTS AND  
SOIL CONSERVATION

AND

THE JAPAN INTERNATIONAL  
COOPERATION AGENCY

RABAT, APRIL 17 1992

  
MR. KARMOUNI Abdelouahab

MINISTRY OF AGRICULTURE  
AND AGRARIAN REFORM

DEPARTMENT OF FORESTS  
AND SOIL CONSERVATION

KINGDOM OF MOROCCO

  
MR. SADACHI Kazuya

LEADER

PREPARATORY STUDY TEAM,  
JAPAN INTERNATIONAL  
COOPERATION AGENCY

JAPAN

## I. INTRODUCTION

In response to the request of the Government of the Kingdom of Morocco, the Government of Japan has decided to conduct the Study on Regional Reforestation Plan for Fuelwood Production (hereinafter referred to as "the Study"), in accordance with the relevant laws and regulations in force in Japan. Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of technical cooperation programs of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of the Government of the Kingdom of Morocco.

The present document sets forth the scope of work with regard to the above mentioned study.

## II. OBJECTIVE OF THE STUDY

The objective of the Study is to contribute to the improvement of the fuelwood supply and production, and the conservation of environment in the Kingdom of Morocco by :

- 1/ Formulating a master plan for fuelwood forest management in the study area and
- 2/ Formulating an implementation plan of reforestation for fuelwood production in an intensive area, according to the above master plan.

## III. STUDY AREA

The study area is Marrekech, Beni-Mellal and Khouribga Provinces (see APPENDIX I). The intensive area is represented by a rural community of Marrakech province (approximately 30.000 ha).

## IV. OUTLINE OF THE STUDY

In order to achieve the objective mentioned above, the Study will cover the following works :

- 1/ Procurement and analysis of the satellite images of the three provinces covered by the study.
- 2/ Aerial photographing (scale 1/25.000) of the rural community selected

3/ The study of the following themes :

- a. National policy and plan on forestry, environment and regional development
- b. Situation of fuelwood demand, supply and trade in the relevant area
- c. Socio-economic conditions
- d. Present conditions on land use, vegetation and others
- e. Inventory of the existing forests
- f. Forestry techniques and works.

4/ Preparation of maps and others as follows

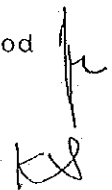
- a. Land use map of the study area (to be developed from satellite images)
- b. Forest base maps of the three provinces
- c. Vegetation maps
- d. Forest stands type maps of the intensive area
- e. Implementation maps of the master plan for the intensive area
- f. Forest inventory books of the intensive area

5/ Formulating a master plan which shows the necessary measures and inputs for 20 years for fuelwood reforestation and supply in the study area.

This plan will orientate the implementation plans to be drawn up in existing rural communities. Main contents are as follows ;

- a. Selection of suitable tree species and plantation techniques according to the landform, soil type, and climate.
- b. Specification of areas to be planted and necessary standing stock to cover shortage of fuelwood demand.
- c. A rough estimation of the reforestation cost to achieve the purpose.
- d. Arrangement for supplying fuelwood to markets and consumers efficiently.

6/ Formulating an implementation plan for 5 years, which stipulates reforestation and related works for fuelwood production in the intensive area.



This plan is expected to be directly implemented, and also to be used as a model for formulating implementation plans in other areas. Main contents are as follows :

- a. Specification of forest types to be developed, identification of reforestation zones, and the definition of adaptable techniques in each compartment according to the guide line in the master plan.
  - b. Yearly programs of activities such as seed's preservation, model nursery establishment, seedling production, planting, tending, cutting and supply of fuelwood.
  - c. Economic evaluation to implement above programs.
- 7/ Holding a seminar on the results of the study at the end of the study period.

#### V. WORK SCHEDULE

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

#### VI. REPORTS

JICA will prepare and submit the following reports in French to the Government of the Kingdom of Morocco :

1/ Inception Report

Twenty (20) copies at the beginning of the Study in Morocco

2/ Progress Report.

Twenty (20) copies within eight (8) months after the beginning of the Study

3/ Interim Report

Twenty (20) copies within eighteen (18) months after the beginning of the Study.

4/ Draft Report

Twenty (20) copies within twentythree (23) months after the beginning of the Study. The Government of Morocco will provide JICA with comments within one (1) month after the reception of this report.

## 5/ Final Report

Fifty (50) copies, JICA will prepare the Final Report within two (2) months after the reception of the comments of Morocco on the Draft Final Report.

In addition to the above reports, one set each of followings will be submitted to the Government of Morocco with relevant reports.

- a. aerial photographs (contact prints and negative films, scale 1/25.000) of the intensive area.
- b. land occupation maps of the study area
- c. vegetation maps (1/50.000)
- d. forest stands type maps (scale 1/25.000) of the intensive area
- e. implementation maps of the model plan for the intensive area
- f. forest inventory books of the intensive area.

## VII. UNDERTAKING OF MOROCCAN SIDE

1. To facilitate smooth conduct of the Study, the Government of the Kingdom of Morocco will arrange for taking 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 stay in the Kingdom of Morocco for the duration of their assignment therein, and exempt them from foreign registration requirements and consular fees.
- 3/ To exempt the members of the Japanese study team from taxes, duties and any other charges imposed on equipment, machinery and materials brought into the Kingdom of Morocco for the conduct 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 emoluments or allowances paid to the members of the Japanese study team for their services in connection with the implementation of the Study (the Ministry of Agriculture and Agrarian Reform would bear payment of the taxes, duties and any other charges imposed on the Japanese study team and members of the team under the laws and regulations in force in the Kingdom of Morocco).

- 5/ To provide necessary facilities to the Japanese study team for the remittance as well as the utilization of funds introduced into the Kingdom of Morocco from Japan in connection with the implementation of the Study.
- 6/ To secure permission for the implementation of the Study.
- 7/ To secure permission for felling trees and collecting plants necessary for the implementation of the Study.
- 8/ To secure permission to take data and documents, including photographs and maps, necessary to the Study, out of the Kingdom of Morocco to Japan by the Japanese study team.
- 9/ To provide medical services as needed under the condition that its expenses are chargeable on the members of the Japanese study team.

2. The Government of the Kingdom of Morocco will bear claims, if any arises, against 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 Ministry of Agriculture and Agrarian Reform (Department of Forests and Soil Conservation) will 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 concerning for the smooth implementation of the Study.

4. The Ministry of Agriculture and Agrarian Reform (Department of Forests and Soil Conservation) will, at its own expense, provide the Japanese study team with the followings, in cooperation with other Moroccan relevant organizations, if necessary:

- 1/ Existing necessary data, information and materials, including aerial photographs, satellite images and topographic maps related to the Study.
- 2/ Counterpart personnel
- 3/ Suitable office with necessary equipment in the study area
- 4/ Credentials or identification cards
- 5/ Typists, drivers and laborers necessary for the implementation of the Study.

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VIII UNDERTAKING OF JAPANESE  
SIDE

For the implementation of the Study, JICA will take necessary measures :

- 1/ To dispatch, at its own expense, study teams to Morocco to conduct the study
- 2/ To pursue technology transfer to the Moroccan counterpart personnel in the course of the Study, by insuring a complementary formation.

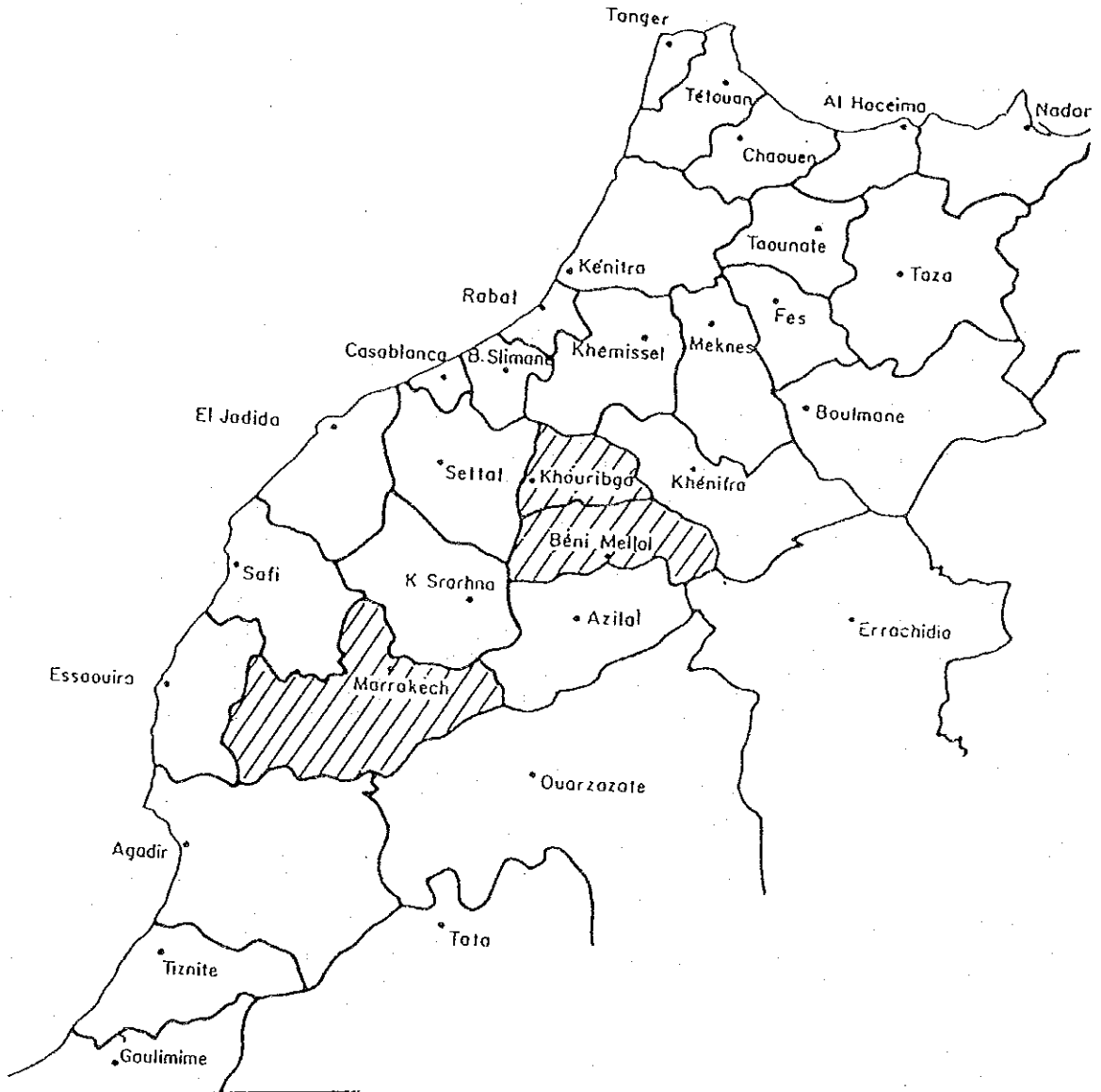
IX. CONSULTATION

JICA and the Ministry of Agriculture and Agrarian Reform (Department of Forests and Soil Conservation) will consult with each other in respect of any matter that may arise from or in connection with the Study.

/h  
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APPENDIX I

THE KINGDOM OF MOROCCO



Target Provinces of the Study



APPENDIX II

TENTATIVE SCHEDULE

ITEM	MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
WORKS IN MOROCCO																												
WORKS IN JAPAN																												
REPORTS																												

CADRE DE TRAVAIL

P O U R

L'ETUDE DU PLAN DE REBOISEMENT REGIONAL  
POUR LA PRODUCTION DE BOIS DE CHAUFFAGE  
AU ROYAUME DU MAROC


CONVENU ENTRE

LE MINISTERE DE L'AGRICULTURE  
ET DE LA REFORME AGRAIRE  
(DIRECTION DES EAUX ET FORETS  
ET DE LA CONSERVATION DES SOLS)

E T

L'AGENCE JAPONAISE DE COOPERATION  
INTERNATIONALE

RABAT, LE 17 AVRIL 1992

  
MONSIEUR KARMOUNI Abdelouahab

MINISTERE DE L'AGRICULTURE ET  
DE LA REFORME AGRAIRE  
(DIRECTION DES EAUX ET FORETS  
DE LA CONSERVATION DES SOLS)  
ROYAUME DU MAROC

  
MONSIEUR SADACHI Kazuya

CHEF DE L'EQUIPE D'ETUDE  
PRELIMINAIRE, AGENCE  
JAPONAISE DE COOPERATION  
INTERNATIONALE,  
JAPON

## I. INTRODUCTION

Suite à la requête émise par le gouvernement du Royaume du Maroc, le gouvernement du Japon a décidé de procéder à l'Etude pour l'élaboration d'un Plan de Reboisement Régional pour la Production de Bois de Chauffage (ci-après désignée par "l'Etude") conformément aux lois et règlements en vigueur au Japon.

En conséquence, l'Agence Japonaise de Coopération Internationale (ci-après désignée par "JICA"), l'agence officiellement responsable de la mise en oeuvre des programmes de coopération technique du gouvernement du Japon, sera chargée de l'Etude en étroite collaboration avec les autorités compétentes du gouvernement du Royaume du Maroc.

Le présent document formule le cadre de travail relatif à l'Etude sus-mentionnée.

## II. OBJECTIF DE L'ETUDE

L'Etude a pour objectif de contribuer à l'amélioration de la production et de l'approvisionnement en bois de chauffage et à la protection de l'environnement dans le Royaume du Maroc par :

- (1) La définition d'un plan directeur d'aménagement forestier de bois de chauffage dans la région concernée par l'Etude et
- (2) La définition d'un plan de reboisement pour la production de bois de chauffage dans la zone pilote, conformément au plan directeur ci-dessus mentionné.

## III. REGION CONCERNEE PAR L'ETUDE

L'Etude portera sur les provinces de Marrakech, Béni Mellal et Khouribga (voir ANNEXE 1), la zone pilote est représentée par une commune rurale relevant de la province de Marrakech (environ 30.000 ha).

## IV. PRESENTATION DE L'ETUDE

Pour répondre à l'objectif précédemment mentionné, l'Etude comprendra les travaux suivants :

1. Fourniture et analyse des images satellites des 3 provinces concernées par l'Etude.
2. Photographie aérienne (échelle au 1/25.000) de la commune rurale choisie.

3. Etude des thèmes ci-après :
  - a. Politique nationale et plan de reboisement, environnement et développement régional
  - b. Etat de la demande, de l'offre et du marché du bois de chauffage dans la région concernée.
  - c. Conditions socio-économiques
  - d. Conditions d'utilisation actuelle des terres, végétation et autres
  - e. Inventaire des forêts existantes
  - f. Techniques et travaux forestiers
  
4. Préparation des cartes suivantes et autres :
  - a. Cartes d'occupation des terres de la région concernée par l'Etude (développées à partir d'images satellite).
  - b. Cartes forestières des trois provinces
  - c. Cartes de végétation
  - d. Cartes des types de peuplements forestiers de la zone pilote
  - e. Cartes de mise en oeuvre du plan directeur pour la zone pilote.
  - f. Livre inventaire des forêts de la zone pilote.
  
5. Formulation d'un plan directeur indiquant les mesures à prendre et les interventions à effectuer sur une durée de 20 ans pour un reboisement et une production de bois de chauffage de la région concernée par l'Etude. Ce plan orientera le plan de détail à élaborer pour chacune des communes rurales existantes et comprendra les principaux points suivants :
  - a. Choix des essences les plus appropriées et des techniques de plantation en fonction du relief, du type de sol et du climat.
  - b. Spécification des zones à reboiser et capital sur pied nécessaire pour satisfaire la demande en bois de chauffage.
  - c. Estimation des coûts des reboisements nécessaires.
  - d. Dispositions pour une alimentation efficace des marchés et des consommateurs en bois de chauffage.
  
6. Formulation d'un plan de mise en oeuvre pour 5 ans stipulant les travaux de reboisement et les travaux connexes nécessaires à une production de bois de chauffage dans la zone pilote.

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 KIP

Ce plan sera directement mis en oeuvre et utilisé comme modèle pour la formulation d'autres plans de mise en oeuvre dans d'autres régions. Il comprendra les principaux points suivants :

- a. Spécification des types de forêts à développer, identification des zones reboisables et définition des techniques appropriées dans chaque cas conformément aux conseils donnés dans le plan directeur.
  - b. Programmes annuels des activités de conditionnement des semences, de production de plants, plantation, entretien, coupe et préparation du bois de chauffage. Elaboration d'un projet d'une pépinière modèle.
  - c. Evaluation économique pour la mise en oeuvre des programmes précédents.
7. Organisation d'un séminaire sur les résultats de l'Etude à la fin de la période d'étude.

#### V. PROGRAMME DES TRAVAUX

L'étude sera menée conformément au programme provisoire joint (voir ANNEXE II).

#### VI. RAPPORTS

La JICA préparera et soumettra à l'approbation du gouvernement du Royaume du Maroc les rapports suivants rédigés en Français :

1. Rapport initial

Rédigé en vingt (20) exemplaires au début de l'Etude au Maroc.

2. Rapport d'avancement

Rédigé en vingt (20) exemplaires dans les huit (8) mois suivant le commencement de l'Etude.

3. Rapport intérimaire

Rédigé en vingt (20) exemplaires dans les dix-huit (18) mois suivant le commencement de l'Etude.

4. Rapport provisoire

Rédigé en vingt (20) exemplaires dans les vingt-trois (23) mois suivant le commencement de l'Etude. Le gouvernement du Maroc fera part de ses commentaires à la JICA au plus tard un (1) mois après réception du dit rapport.

## 5. Rapport définitif

Rédigé en cinquante (50) exemplaires, ce rapport sera préparé par la JICA au plus tard deux (2) mois après réception des commentaires du gouvernement marocain sur le rapport provisoire.

En plus des rapports précédents, un jeu complet des documents suivants sera remis au gouvernement marocain avec les rapports concernés :

- a. Photographies aériennes (planches contact et négatifs échelle au 1/25.000) de la zone pilote.
- b. Cartes d'occupation des terres de la région concernée par l'Etude
- c. Cartes de la végétation (1/50.000).
- d. Cartes des peuplements forestiers (1/25.000) de la zone pilote.
- e. Cartes de mise en oeuvre du plan pour la zone pilote.
- f. Livre inventaire des forêts de la zone pilote.

## VII. APPORT DE LA PARTIE MAROCAINE

1. Afin de faciliter la bonne conduite de l'Etude, le gouvernement du Royaume du Maroc prendra les mesures suivantes :

- (1) assurer la sécurité des membres de l'équipe japonaise chargée de l'Etude,
- (2) Délivrer les autorisations d'entrée, de sortie et de résidence sur le territoire du Royaume du Maroc pendant la durée de leur mission aux membres de l'équipe japonaise chargée de l'Etude et de les exempter des formalités d'enregistrement requis et des droits consulaires.
- (3) Exempter les membres de l'équipe japonaise de l'Etude des droits de douane, des taxes et autres charges sur les équipements, machines et autres matériels importés au Royaume du Maroc pour la réalisation de l'Etude.
- (4) Exonérer les membres de l'équipe japonaise de l'étude de l'impôt sur le revenu et des autres charges de toute nature relatives à tous émoluments et allocations qui leur seront payés pour leurs services d'exécution de l'Etude.

Toutes les taxes, impôt général sur le revenu et autres charges fiscales auxquelles les membres de la mission d'Etude japonaise seraient assujettis dans le cadre de la législation marocaine en vigueur seront imputables au Ministère de l'Agriculture et de la Réforme Agraire.

- (5) Accorder les facilités nécessaires aux membres de l'équipe japonaise chargée de l'Etude pour disposer et utiliser les fonds introduits sur le territoire du Royaume du Maroc depuis le Japon dans le cadre de la mise en oeuvre de l'Etude
  - (6) Délivrer les autorisations nécessaires à la mise en oeuvre de l'Etude.
  - (7) Délivrer les autorisations nécessaires à l'abattage des arbres et à la collecte des plantes nécessaires à la mise en oeuvre de l'Etude.
  - (8) Délivrer les autorisations nécessaires aux membres de l'équipe japonaise chargée de l'Etude pour exporter du Royaume du Maroc vers le Japon les informations et les documents, y compris cartes et photographies nécessaires à l'étude.
  - (9) Assurer les soins médicaux nécessaires éventuels étant entendus qu'ils sont facturables aux membres de l'équipe japonaise chargée de l'Etude.
2. Le cas échéant, le gouvernement Marocain se chargera des réclamations déposées contre les membres de l'équipe Japonaise de l'Etude survenues au cours, en lien, ou à la suite de l'accomplissement de leurs devoirs dans la conduite de l'Etude, à moins que de telles réclamations ne proviennent d'une grande négligence ou d'une mauvaise conduite intentionnelle de la part des membres de l'équipe japonaise de l'Etude.
  3. Le Ministère de l'Agriculture et de la Réforme Agraire (Direction des Eaux et Forêts et de la Conservation des Sols) fera fonction d'organe homologue de l'équipe japonaise chargée de l'Etude et d'organe de coordination avec les autres organismes gouvernementaux ou non pour tout ce qui concerne la bonne mise en oeuvre de l'Etude.
  4. Le Ministère de l'Agriculture et de la Réforme Agraire (Direction des Eaux et Forêts et de la Conservation des Sols), en coopération avec les autres organismes marocains concernés, mettra, si nécessaire et à ses propres frais, à disposition de l'équipe japonaise chargée de l'Etude ce qui suit :
    - (1) Données, informations et matériel disponibles, y compris photographies aériennes, images satellite et cartes topographiques relatives à l'étude.
    - (2) Personnel homologue
    - (3) Bureau adéquat équipé dans la région de l'Etude
    - (4) Lettres de mission ou cartes de séjour.
    - (5) Dactylographes, chauffeur et main d'oeuvre nécessaire à la mise en oeuvre de l'Etude.

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### VIII. APPORT DE LA PARTIE JAPONAISE

Pour la mise en oeuvre de l'Etude, la JICA prendra les mesures nécessaires pour :

- (1) Envoyer au Maroc à ses frais les équipes pour la réalisation de l'Etude.
- (2) Au cours de l'étude, procéder au transfert de la technologie aux homologues marocains en leur assurant une formation complémentaire.

### IX. CONSULTATION

La JICA et le Ministère de l'Agriculture et de la Réforme Agraire (Direction des Eaux et Forêts et de la Conservation des Sols) se consulteront mutuellement sur tout ce qui concerne l'Etude.

h  
KJ



MINUTES OF DISCUSSIONS ON THE SCOPE OF WORK  
FOR  
THE STUDY ON REGIONAL REFORESTATION  
PLAN FOR FUELWOOD PRODUCTION  
IN THE KINGDOM OF MOROCCO

In response to the request of the Government of the Kingdom of Morocco, the Government of Japan decided to conduct the Study on regional reforestation plan for the fuelwood production (hereinafter referred to as "the Study") and the Japan International Cooperation Agency dispatched the preparatory study team (hereinafter referred to as "the team"), headed by

Mr. KAZUYA SADACHI

From April 7, 1992 to April 17, 1992.

The Team and official concerned of the Government of the Kingdom of Morocco, headed by Mr. KARMOUNI ABDELOUAHAB had a series of discussions and exchanged their views on the Scope of work (hereinafter referred to as "the S/W) for the Study. Consequently, both sides agreed on the S/W on April 17, 1992.

Both sides confirmed that the matters mentioned below are the results of the discussions :

1. Transfer of techniques

The Government of the Kingdom of Morocco will assign necessary number of counterpart personnel throughout the study so that the transfer of techniques can be conducted smoothly.

Also a seminar on the Study will be held at the end of the cooperation period as it is mentioned in the S/W.

2. Counterpart training in Japan

- Moroccan side requested to accept Moroccan counterpart staff in JICA 's training program to be held in Japan.
- The Team answered that JICA would make necessary arrangements to conduct the training program.

3. Equipments

Moroccan side requested the procurement of following equipments for the smooth conduct of the Study, and the Team agreed to make available the following equipments to the Study :

- a. equipments for forest survey
- b. four-wheel drive vehicles
- c. copying machines and computers

These equipments will be handed over to the Kingdom of Morocco after the completion of the study.

The nature and quantity of the equipments will be defined according to the need of the study.

#### 4. Complementary Progress Report

In addition to the Progress Report referred in the S/W, Moroccan side requested the submission of a complementary Progress Report compiled by the Japanese Study Team within thirteen (13) months after the beginning of the Study.

Both sides agreed that the Report would be submitted by the Japanese study team.

#### 5. Development of new techniques

Moroccan side also requested to extend the Study to the new techniques development on more efficient fuelwood burning system and renewable energy resources substituted for fuelwood.

#### 6. Field Work Period in Morocco

The Moroccan side requested to extend Japanese Study Team's field work period in Morocco referred in the S/W, so as to get more data and favor close contact between mutual personnel.

The team considered the request and agreed to inform the Japanese authorities concerned.

#### 7. Participants

List of participants in the series of discussions is attached as an annex.


RABAT,



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MR. SADACHI Kazuya

Leader of preparatory Study  
Team,  
Japan International  
Cooperation Agency  
JAPAN



---

MR. KARMOUNI Abdelouahab

Ministry of Agriculture and  
Agrarian Reform (Department of  
Forests and Soil Conservation)

KINGDOM OF MOROCCO

LIST OF  
PARTICIPANTS

JAPANESE PREPARATORY STUDY TEAM  
JAPAN INTERNATIONAL COOPERATION  
AGENCY

MOROCCAN COUNTERPART  
MINISTRY OF AGRICULTURE  
AND AGRARIAN REFORM

(DEPARTMENT OF FORESTS AND  
SOIL CONSERVATION)

MR. SADACHI Kazuya  
MR. NISHIMURA Tetsuo  
MR. SHIMIZU Tatsuo  
MR. AIBA Manabu  
MR. INOUE Hiroaki  
MR. OKATSU Keigo

MR. KARMOUNI Abdelouahab  
MR. HISSEM Lahoucine  
MR. OMERANI Abdesslam

*K&S*

SCOPE OF WORK  
FOR  
THE FOREST RESOURCES MANAGEMENT STUDY FOR ZAMBIA TEAK  
FORESTS  
IN SOUTH-WESTERN ZAMBIA  
AGREED UPON BETWEEN  
MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES  
AND  
THE JAPAN INTERNATIONAL COOPERATION AGENCY

Lusaka, October 21, 1993



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Mr. Peter L. Mwamfuli  
Permanent Secretary,  
Ministry of Environment  
and Natural Resources



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Dr. Sumihiko Asakawa  
Leader,  
The Preparatory Study Team  
Japan International  
Cooperation Agency

## I. INTRODUCTION

In response to the request of the Government of the Republic of Zambia, the Government of Japan decided to conduct the Forest Resources Management Study for Zambia Teak Forests in South-Western Zambia (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan and Zambia.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of Japan, will undertake the Study in close cooperation with the Ministry of Environment and Natural Resources of the Republic of Zambia.

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 survey the forest resources, in particular, the Zambia Teak Forests with a view to prepare a forest management plan.
- 2) to carry out technology transfer in the course of the Study to the counterpart personnel of the Government of Zambia:

and thus to enhance the capacity of the Forest Department to protect and conserve the Zambia Teak Forests on a sustainable basis.

## III STUDY AREA

The study area covers approximately 500,000 ha of South-Western Zambia including Mulobezi and Sesheke (see appendix).

## IV. OUTLINE OF THE STUDY

In order to achieve the objectives mentioned above, the Study will include the following three (3) phases.

### Phase I

1. Aerial photographing of the Study area.  
(approximately 500,000 ha; scale 1/25,000)
2. Collection and analysis of the data and information, the field survey on the following:

- a) Natural conditions
- b) Socio-economic conditions
- c) Forestry conditions
- d) Land-use conditions

#### Phase II

1. Preparation of topographic maps of the Study area.  
(scale 1/50,000; contour intervals 20 m)
2. Interpretation of aerial photographs and preparation of land-use and vegetation maps of the Study area.
3. Identification of the area covered by Zambia Teak Forests (hereinafter referred to as "the Teak Forests Area").
4. Collection and analysis of the data and information in the Teak Forests Area, through the forest survey on the following:
  - a) Forest resources
  - b) Soils
5. Preparation of the following documents for the Teak Forests Area
  - a) Land-use and vegetation maps
  - b) Soils maps
  - c) Forestry inventory books

#### Phase III

1. Formulation of the forest management plan to include the following components:
  - a) Land-use plan
  - b) Silvicultural systems
  - c) Utilisation systems
  - d) Initial Environmental Examination

#### V WORK SCHEDULE

The Study shall be carried out in accordance with the attached tentative work schedule (see appendix 2).

*M.A.C.*

*S.A.*

## VI REPORTS

JICA shall prepare and submit the following reports in English to the Government of Zambia.

1. Inception Report

Twenty (20) copies at the commencement of the study in Zambia.

2. Progress Report (1)

Twenty (20) copies at the commencement of the first period of Phase II in Zambia.

3. Progress Report (2)

Twenty (20) copies at the commencement of the first period of Phase III in Zambia.

4. Interim Report

Twenty (20) copies at the commencement of the second period of Phase III in Zambia.

5. Draft Final Report

Twenty (20) copies at the end of Phase III. The Government of Zambia will provide JICA with its comments on the Draft Final Report within one (1) month after the receipt of the Draft Final Report.

6. Final Report

Fifty (50) copies within two (2) months after the receipt of the comments of the Government of Zambia on the Draft Final Report.

In addition to the above reports, one set each of the following will be submitted to the Government of Zambia with relevant reports.

a) Aerial photographs for the Study area:

- . Positive and negative films (scale 1/25,000 1 set)
- . Contact prints (scale 1/25,000 1 set)

b) Maps and others:

- . Topographic maps for the Study area (scale 1/50,000 1 set)

*MAEC*

*J.A.*

- . Land-use and vegetation maps for the Study area, also indicating the forest condition in the Teak Forests Area (scale 1/50,000 1 set)
- . Soil maps for the Teak Forests Area (scale 1/50,000 1 set)
- . Forest inventory books for the Teak Forests Area

#### VII. UNDERTAKING OF THE GOVERNMENT OF ZAMBIA

1. To facilitate the smooth running of the Study, the Government of Zambia shall take necessary measures:
  - a) to ensure the safety of the Japanese study team,
  - b) to permit the members of the Japanese study team to enter, leave and sojourn in Zambia for the duration of their assignment therein, and exempt them from foreign registration requirements and consular fees,
  - c) to exempt the members of the Japanese study team from taxes, duties and other charges on equipment, machinery and other materials brought into Zambia for the conduct of the Study,
  - d) to exempt the members of the Japanese study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese study team for their services in connection with the implementation of the Study,
  - e) to provide necessary facilities to the Japanese study team for remittance as well as utilization of the funds introduced into Zambia from Japan in connection with the implementation of the Study,
  - f) to secure permission for entry into private properties or restricted areas for the conduct of the Study,
  - g) to secure permission for the Japanese study team to take all data and documents (including maps and photographs) related to the Study out of Zambia to Japan,
  - h) to provide medical services as needed, whose expenses will be charged to members of the Japanese study team.
2. The Government of Zambia shall bear claims, if any, against 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 wilful misconduct on the part of the members of the Japanese study team.

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*S.A.*



3. The Ministry of Environment and Natural Resources shall act as counterpart agency to the Japanese study team.
4. The Ministry of Environment and Natural Resources shall act as the coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.
5. Ministry of Environment and Natural Resources shall, at its own expense, provide the Japanese study team with the following, in cooperation with other organizations concerned:
  - a) available data and information related to the Study,
  - b) counterpart personnel,
  - c) standard office spaces with necessary equipment in Sesheke and Machile,
  - d) credentials and identification cards.

#### VIII UNDERTAKING OF JICA

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

1. to dispatch, at its own expense, study teams to Zambia,
2. to pursue technology transfer to the Zambian counterpart personnel in the course of the Study.

#### IX OTHERS

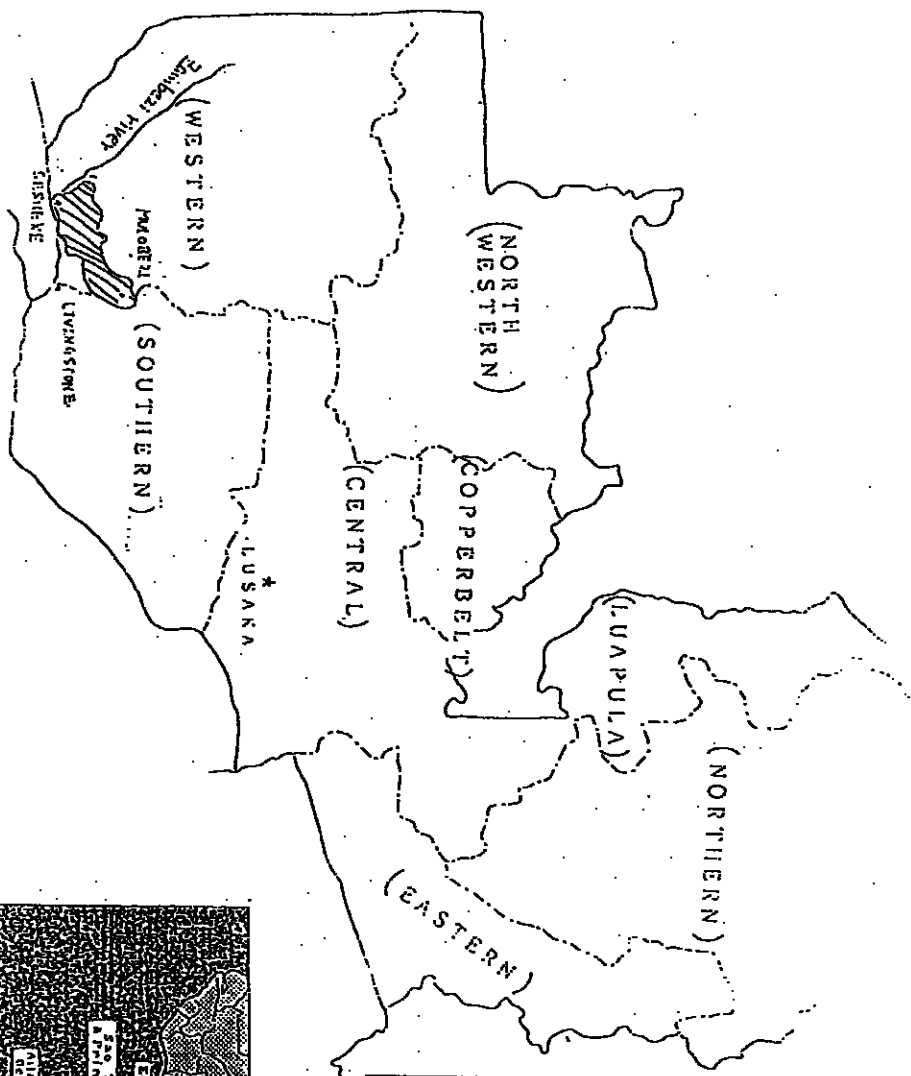
JICA and Ministry of Environment and Natural Resources shall consult with each other in respect of any matter that may arise from or in connection with the Study.

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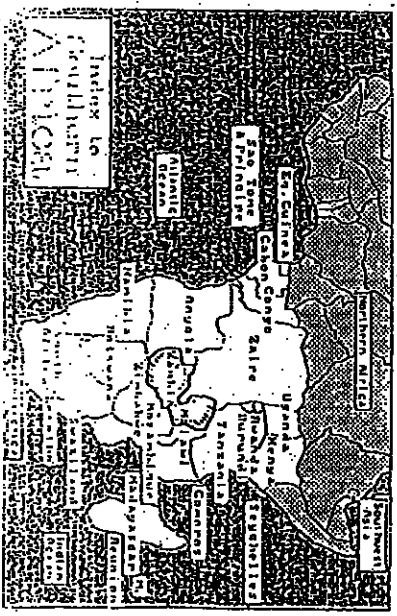
LOCATION OF THE PROJECT



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 Author: [illegible]

**LEGEND**

- International border ———
- Provincial border - - - - -
- Study area



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MEC

S.A.

AGREED MINUTES OF THE MEETING  
ON THE  
SCOPE OF WORK  
FOR  
THE FOREST RESOURCES MANAGEMENT STUDY FOR ZAMBIA TEAK  
FORESTS  
IN SOUTH-WESTERN ZAMBIA  
HELD BETWEEN THE JAPANESE TEAM  
AND MINISTRY OF ENVIRONMENT  
AND NATURAL RESOURCES  
ON OCTOBER 21, 1993

The preparatory study team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA"), and headed by Dr. Sumihiko Asakawa, visited the Republic of Zambia from October 14 to 26, 1993 for the purpose of discussing and confirming the Scope of Work for the Forest Resources Management Study for Zambia Teak Forests in South-Western Zambia (hereinafter referred to as "the Study")

The team had a series of discussions with the officials concerned of the Ministry of Environment and Natural Resources (hereinafter referred to as "MENR") on the Scope of Work for the Study. The list of participants in the meeting is attached in the Annex.

As a result of the discussions, MENR and the Team agreed upon the Scope of Work for the Study.

The following are the main items to be stressed and agreed upon by both sides in relation to the Scope of Work for the Study.

1. Forest Department will be directly responsible for the implementation of the Study.

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2. MENR requested that the following equipment procured by JICA for the Study team be donated to MENR after the termination of the Study. The Team promised to convey its request to the Government of Japan.

- 1) Four-wheel drive vehicle(s)
- 2) Transceiver(s)
- 3) Personal computer(s)
- 4) Photocopy machine

3. MENR requested the counterpart training in Japan. The Team promised to convey its requests to the Government of Japan.

4. JICA may hold a seminar on the result of the Study at the end of the Study period in Zambia.

5. MENR promised to prepare standard field offices in Sesheke and Machile by the commencement of the Study. JICA requested MENR to arrange a suitable office in Lusaka temporarily for the Study team as needed.

6. MENR requested JICA to consider extending subsistence allowance to Zambian counterparts for the smooth execution of the study. The Team promised to convey its request to the Government of Japan.

7. The MENR requested the Japanese Team to conform to the prevailing rules and regulations in the Government of Zambia.

8. The MENR requested that JICA should where possible assist in the Social Welfare of the people in the project areas.


9. The MENR requested that the conditions of service of JICA team and counterpart staff should be clearly spelt out.

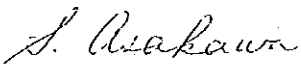
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10. The Study Team suggested the establishment of a Joint Committee chaired by MENR to coordinate activities and exchange information and views on major issues arising from or in connection with, the study. The composition of the proposed Committee would be decided at a later date in consultation between JICA, MENR and other interested parties, including GTZ. The MENR took note and promised to consider the request.

Lusaka, 22 October, 1993

  
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for Mr. Peter L. Mwamfuli  
Permanent Secretary  
Ministry of Environment  
and Natural Resources

  
-----  
Dr. Sumihiko Asakawa  
Leader,  
The Preparatory Study  
Team  
Japan International  
Cooperation Agency

LIST OF PARTICIPANTS

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ZAMBIAN TEAM

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Mr. P.L. Mwamfuli	-	Permanent Secretary (Chairman)
Mr. T.J. Ng'wane	-	Deputy Permanent Secretary
Mr. J.S. Akapelwa	-	Chief Conservator of Forests
Mrs. A. C. Banda	-	Principal Mwekera College
Mr. A.S. Banda	-	Chief Publicity & Training Officer
Mrs. V.M. Mbeule	-	Senior Executive Officer (Secretary)

JAPANESE TEAM

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Dr. S. Asakawa	-	Team Leader Preparatory Study Team (JICA)
Mr. Kagawa	-	JICA (Tokyo)
Mr. Kaji	-	Forestry Agency
Mr. Tsuburaya	-	Forestry Agency
Mr. Nabeya	-	JICA Lusaka Office

*fn*

*S. A.*



Project Administration Service

5231 Makishi Road  
Private Bag RW 37X  
ZA 15102 Ridgeway  
Lusaka/Zambia

Tel. 222 876-7  
Fax: (00 260 1) 222 875  
Telex: 40246 GTZLU ZA

CO-OPERATION AGREEMENT

between

JICA - Japan International Co-operation Agency

and

GTZ - German Agency for Technical Co-operation

for

the Teak Forest Project in Zambia

1. JICA and GTZ agree to co-operate closely in the preparation and execution of the Teak Forest Project.
2. JICA and GTZ will exchange all relevant information and documents.
3. JICA and GTZ agree to set up a Joint Committee to be chaired by the Ministry of Environment and Natural Resources which should review the progress of the project every six months.
4. JICA and GTZ shall consult each other in any arising matter.

Lusaka, 26th October 1993

Dr. Sumihiko Asakawa  
Leader  
The Preparatory Study Team  
JICA

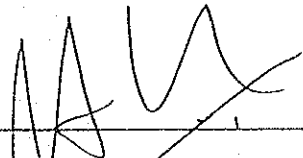
Peter Rhode  
Head of GTZ Office  
Zambia



SCOPE OF WORK  
FOR  
THE FOREST RESOURCES MANAGEMENT STUDY  
AT CHACO  
IN  
THE ARGENTINE REPUBLIC

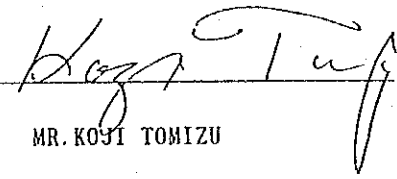
AGREED UPON BETWEEN  
THE GOVERNMENT OF FORMOSA PROVINCE  
AND  
THE JAPAN INTERNATIONAL COOPERATION AGENCY

FORMOSA, 20 JULY, 1993



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DR. VICENTE BIENVENIDO JOGA  
GOVERNOR,  
FORMOSA PROVINCE  
THE ARGENTINE REPUBLIC



---

MR. KOJI TOMIZU  
LEADER,  
PREPARATORY STUDY TEAM  
JAPAN INTERNATIONAL  
COOPERATION AGENCY

## I. INTRODUCTION

In response to the request of the Government of the Argentine Republic (hereinafter referred to as "the Government of Argentina"), the Government of Japan has decided to conduct the Forest Resources Management Study at Chaco in the Argentine Republic (hereinafter referred to as "the Study") in accordance with the Agreement on Technical Cooperation between the Government of Japan and the Government of Argentina signed on August 24, 1981.

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 concerned of the Government of Argentina.

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 conduct a Forest Resources Management Study in order to investigate the condition of the forest and to formulate a forest management plan in the chaco region.
- 2) to carry out technology transfer in the course of the Study to the counterpart personnel within the Government.

the intended purpose of the above is to contribute to the sustainable development of forest resources in Argentina.

## III. OUTLINE OF THE STUDY

### 1. Study Area

The Study area will cover approximately 2,500,000 ha. (APPENDIX-I)

the area of approximately 200,000 ha in the study area for the intensive field survey and the aerial photographs (hereinafter referred to as "the

Intensive Area"), and the area of approximately 30,000ha in the Intensive area for the formulation of the model forest management plan ( hereinafter referred to as "the Model Area") will be selected.

## 2. Scope of the Study

The Study will consist of the following phases. Work plans in each phase are as follows.

### 2-1 Work in phase 1

#### (1) Collection of data and information, and field survey,

- a. Socio-economic conditions,
- b. Natural conditions,
- c. Existing policy and regulations concerned with the Study,
  - National and regional socio-economic development plans
  - Environmental regulations,
  - Forestry, and
  - Other.
- d. Forestry and forest related industry,
- e. Forest management systems and technology,
- f. Land holding and tenure conditions, and
- g. Other.

#### (2) An investigation of the Landsat Data in order to survey the forest and determine the condition and use of land in the study area.

#### (3) Aerial photographing (1/20,000) of the Intensive area.

#### (4) Preparation of maps

- a. Land use and vegetation map
- b. Forest resources evaluation map
- c. Topographic map

### 2-2 Work in phase 2

#### (1) Forest resources survey of the Model area on

- a. Forest type and vegetation,
- b. Natural regeneration,

- c. Volume table, and
  - d. Soil type.
- (2) Formulation of guidelines for forest resources management of the Study Area considering the following environmental aspects.
- Criteria for forest management.
  - Criteria for forest conservation, and
  - Other.

2-3 Work in phase 3

- (1) Formulation of the forest management plan on the following items of the Model area.
- a. Forest classification
  - b. Land use
  - c. Logging
  - d. Afforestation
  - e. Forest protection
  - f. Forest roads
- (2) Preparation of the maps and books of the Model areas as follows:
- a. Forest type map.
  - b. Soil map.
  - c. Forest management plan map, and
  - d. Forest inventory book.

#### IV. WORK SCHEDULE

The Study shall be carried out in accordance with the attached tentative work schedule. (APPENDIX H)

#### V. REPORTS

JICA shall prepare the following reports in Spanish for the Government of Argentina. (APPENDIX H)

1. Inception Report:

- twenty (20) copies at the beginning of Phase 1 field work.
2. Progress Report (I)  
twenty (20) copies at the middle of Phase 1 field work.
3. Progress Report (II)  
twenty (20) copies at the beginning of Phase 2 field work.
4. Interim Report:  
twenty (20) copies at the beginning of Phase 3 field work.
5. Draft Final Report:  
twenty (20) copies at the end of Phase 3 study. The Government of Argentina will provide JICA with its comments on the Draft Final Report within one (1) month after receipt of the Draft Final Report.
6. Final Report:  
fifty (50) copies within two (2) months after receipt of the comments from the Government of Argentina on the Draft Final Report.
7. Maps of the Study Area by Landsat data:
- (1) Land use and vegetation map (scale:1/250,000 )
  - (2) Forest resources evaluation map (scale:1/250,000 )
8. Aerial photographs and other of the Intensive Area:
- (1) Negative films (scale:1/20,000 1 set)
  - (2) Contact prints (scale:1/20,000 1 set)
  - (3) Index maps
9. Maps and books of the Model Area:
- (1) Topographic map (scale:1/20,000 1 set)
  - (2) Forest type map (scale:1/20,000 1 set)
  - (3) Soil map (scale:1/20,000 1 set)
  - (4) Forest management plan map (scale:1/20,000 1 set)
  - (5) Forest inventory books (1set)

VI. UNDERTAKING OF THE GOVERNMENT OF ARGENTINE

1. The Government of Argentina 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 Governmnet of Argentina.

2. To facilitate smooth conduct of the Study. the Government of Argentina 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 Argentine for the duration of the their assignment therein, and exempt them from foreign 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 Argentine for the conduct of the Study.
- (4) to exempt the members of the Japanese study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese study team for their services in connection with the implementation of the Study.
- (5) to provide necessary facilities to the Japanese study team for the remittance as well as utilization of the funds introduced into Argentine from Japan in connection with the implementation of the Study.
- (6) to secure permission for entry into private properties or restricted areas for the conduct of the Study.
- (7) to secure permission for felling the trees and collecting the plants necessary for implementation of the Study.
- (8) to secure permission for the Japanese study team to take all data and documents (including aerial photographs and their positive films) related to the Study out of Argentine to Japan.
- (9) to secure permission of the flight for aerial photography and use of airports for the implementation of the Study.
- (10) to secure clearance for the use of communication facilities including transceivers.

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

3. The Government of Argentina shall bear claims, if any arises against 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.

4. The Formosa Provincial Government shall act as counterpart agency to the Japanese study team and also as coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

5. The Formosa Provincial Government shall, at its own expense, provide the Japanese study team with the following, in cooperation with other organizations concerned:

- (1) available data, maps and information related to the Study.
- (2) counterpart personnel.
- (3) suitable office space with necessary equipment in Formosa and Igr Guillermo N. Juarez.
- (4) credentials or identification cards.
- (5) appropriate number of vehicles with drivers, typists and laborers, necessary for the implementation of the Study.

#### VII. UNDERTAKING OF JICA

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

- (1) to dispatch, at its own expense, the study teams to the Argentine Republic.
- (2) to pursue technology transfer to the Argentina counterpart personal in the course of the Study..

VIII. OTHERS

(1) JICA and the Formosa Provincial Government shall consult with each other on any matter that may arise from or in connection with the Study.

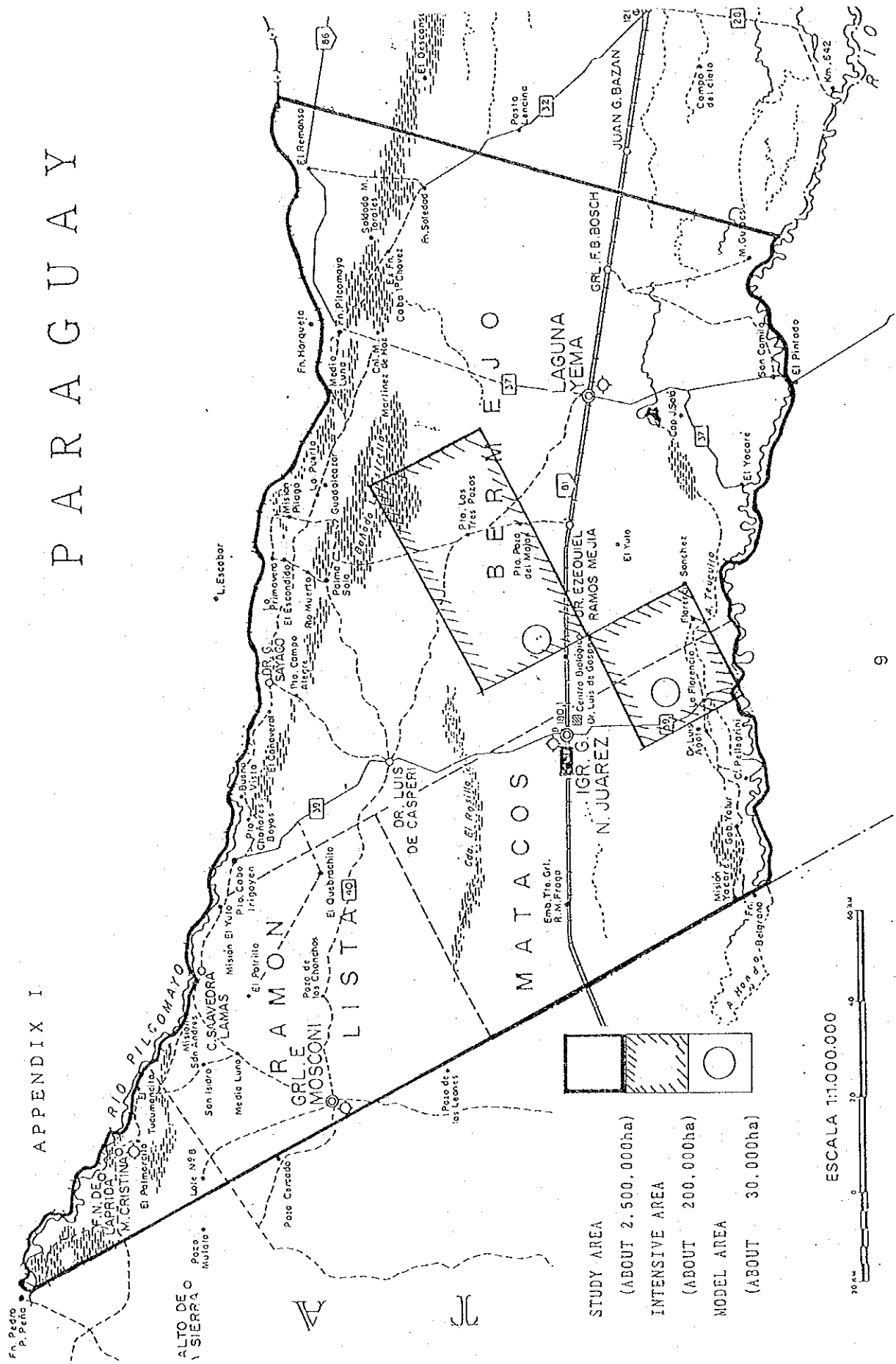
(2) The Scope of work is made both in English and Spanish. In the case of any discrepancies arising in translation, the English version shall prevail.

*W* *W*



# PARAGUAY

## APPENDIX I



- STUDY AREA  
(ABOUT 2,500,000ha)
- INTENSIVE AREA  
(ABOUT 200,000ha)
- MODEL AREA  
(ABOUT 30,000ha)

ESCALA 1:1,000,000



Tentative Work Schedule

APPENDIX II

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
THE STUDY IN JAPAN	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>																				
THE STUDY IN ARGENTINE	<input type="checkbox"/>																										
SUBMISSION OF REPORTS	△ IC/R		△ PG/R-( I )							△ PG/R-( II )							△ IT/R							△ DF/R		△ F/R	
PHASE	← PHASE-1			← PHASE-2							← PHASE-3																

NOTE IC/R : Inception Report      DF/R : Draft Report      F/R : Final Report  
 PG/R : Progress Report      IT/R : Interim Report

MINUTES OF MEETING  
ON  
THE SCOPE OF WORK  
FOR  
THE FOREST RESOURCES MANAGEMENT STUDY AT CHACO  
IN  
THE ARGENTINE REPUBLIC

The Preparatory Study Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") headed by Mr. KOJI TOMIZU, visited the Argentine Republic from 13th July to 24th July, 1993 for the purpose of discussing and confirming the Scope of Work for the Forest Resources Management Study at Chaco in the Argentine Republic (hereinafter referred to as "the Study").

The team had a series of discussions with the officials concerned at the Formosa Provincial Government, the Argentine Republic ( hereinafter referred to as "the FPG") on the Scope of Work for the Study. The list of participants attending the meetings is attached in the Annex.

The following are the main issues discussed and agreed upon by the FPG and the Team.

1. The FPG requested the following matters to the Team , and the Team promised to convey the requests to the Government of Japan.

1) Procurement of the following equipment for the Study by JICA and the donation of this equipment to the Formosa Provincial Government after the completion of the Study.

- four-wheel vehicles
- personal computer
- photocopy machine
- facsimile machine
- survey equipment

2) Training of the Argentine counterpart(s) in Japan.

3) To hold a seminar, for those concerned, at the time of the Final Draft Report's submittence to facilitate the understanding of the Study results.

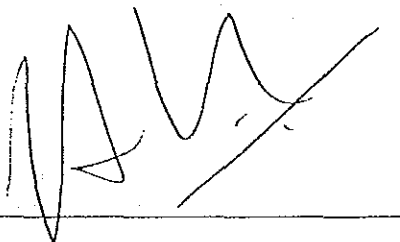
2. The FPG expressed that they would make necessary efforts and take necessary measures on the following matters for the smooth implementation of the Study.

1) To get support from the universities and governmental organizations related to the Study.

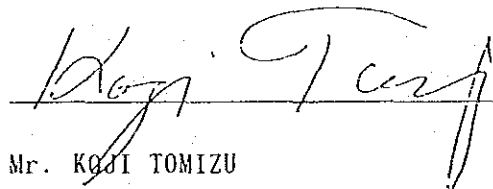
2) To assure the undertaking of Argentina mentioned in the Scope of Work, paragraph VI., in close collaboration with the authorities concerned in the central government.

3) To procure necessary found in order to complete the functions of Argentine counterpart personal.

Formosa, 20 July, 1993



DR. VICENTE BIENVENIDO JOGA  
GOVERNOR,  
FORMOSA PROVINCE  
THE ARGENTINE REPUBLIC



Mr. KOJI TOMIZU  
LEADER OF THE PREPARATORY  
SURVEY TEAM,  
JAPAN INTERNATIONAL COOPERATION  
AGENCY

ANNEX

ASISTENTES POR LA PARTE ARGENTINA

DR. VICENTE B. IDGA - GOBERNADOR DE LA PROVINCIA DE FORMOSA.  
GILDO INFRAN - VICE GOBERNADOR DE LA PROVINCIA DE FORMOSA.  
DR. JORGE G. IBANEZ - MINISTRO SECRETARIO DE ESTADO DE PLANEAMIENTO  
Y DESARROLLO.  
JORGE ROMAN - ING. AGRONOMO - MINISTRO DE ASUNTOS  
AGROPECUARIOS Y RECURSOS NATURALES.  
AVELINO D. SANCHEVAL - C.P.N. - MINISTRO SECRETARIO GENERAL DEL PODER  
EJECUTIVO PROVINCIAL.

EQUIPO DE TRABAJO

NINFA MENDIETA DE BRANDA - ING. AGRONOMA - DIRECTORA DE PLANEAMIENTO.  
NIDIA LOPEZ DE FILIPIGH - ING. FORESTAL - TECNICA ASESORA DE PLA-  
NEAMIENTO.  
MARTIN RENE ROMANO - ING. FORESTAL - DIRECTOR DE BOSQUES.  
VICENTE SANCHEZ - ING. FORESTAL - DIRECTOR DE INVENTARIO  
FORESTAL.  
ESTEBAN ARIAS - ING. FORESTAL - TECNICO DE DIRECCION DE  
BOSQUES.  
VICTORIO RUBEN SAN - ING. FORESTAL - TECNICO ASESOR DE INVEN-  
TARIO FORESTAL.

INTEGRANTES DE LA MISION JAPONESA

HOJI TOMIZU - SUS. DIRECTOR DEL DPTO. DE ESTUDIOS DE  
(Jefe) DESARROLLO EN AGRICULTURA, FORESTACION Y  
PESCA. JICA.  
HIJOMI TAKAYASHI - JEFE DE LA UNIDAD DE COOPERACION TECNICA,  
(Estudio Forestal) CIVIL DE COOPERACION INTERNACIONAL. CENTRO  
(Asistente)

DE MEJORAMIENTO DE ARBOLES, AGENCIA DE SILVICULTURA.

MASAKATSU SUZUKI  
(Planificación  
del Manejo Forestal)

-JEFE DE SEC. DE PLAN DE MANEJO FORESTAL,  
DIV. DE PLANIFICACION, DEPTO. DE BOSQUES  
PRIVADOS, AGENCIA DE SILVICULTURA.

MASAYOSHI NISHIKAWA  
(Coordinador)

-DIV. DE ESTUDIOS DE DES. EN FORESTACION  
Y PESCA, DPTO. DE ESTUDIOS DE DESARRO-  
LLO EN AGRIC., SILVICULTURA Y PESCA. JICA.

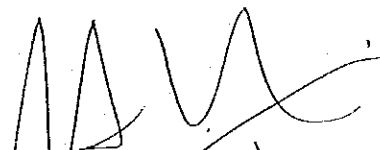
SACHYO SAKURAI  
(Interprete)

-JAPAN INTERNATIONAL COOPERACION CENTER.

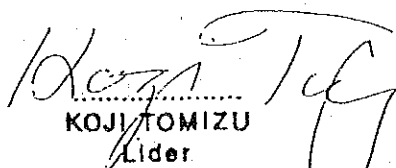
ALCANCE DE TRABAJO  
PARA  
EL ESTUDIO SOBRE EL  
INVENTARIO Y MANEJO FORESTAL  
EN LA REGION DEL PARQUE CHAQUERO  
EN LA REPUBLICA ARGENTINA

ACORDADO ENTRE  
EL GOBIERNO DE LA PROVINCIA DE FORMOSA  
Y  
LA AGENCIA DE COOPERACION INTERNACIONAL DEL JAPON

Formosa, 20 de Julio de 1993



VICENTE B. JOGA  
Gobernador  
Pcia. de Formosa



KOJI TOMIZU  
Lider  
Mision de Estudio Preparatorio  
Agencia de Cooperacion  
Internacional del Japon

## I. INTRODUCCION

En respuesta a la solicitud del Gobierno de la República Argentina (en adelante denominado "GOA"), el Gobierno del Japón a decido llevar a cabo el Estudio sobre el Inventario y Manejo Forestal en la Región del Parque Chaqueño en la Argentina (en adelante denominado "El Estudio") en conformidad con el Convenio de Cooperación Técnica firmado entre el Gobierno del Japón y el GOA, el 24 de agosto de 1.981.

En consecuencia, la Agencia de Cooperación Internacional del Japón (en adelante denominada "JICA"), agencia oficial responsable para la implementación de los programas de Cooperación Técnica del Gobierno del Japón, llevará a cabo el estudio de Cooperación estrecha con las autoridades concernientes al GOA.

El presente documento fija el alcance de trabajo para el Estudio.

## II. OBJETIVOS DEL ESTUDIO

Los objetivos del Estudio son:

- 1) Llevar a cabo el Estudio sobre el Inventario Forestal para investigar el estado de los bosques y formular el plan de manejo forestal en la Región del Chaco.
  - 2) Llevar a cabo la transferencia de tecnología al personal de contraparte del Gobierno en el transcurso del Estudio.
- Contribuir al desarrollo sostenible de los recursos forestales en la Argentina.

## III. LINEAMIENTOS DEL ESTUDIO.

### 1. Área de Estudio.

El área de Estudio cubrirá aproximadamente de 2.500.000 Has.



(Anexo 1).

Será seleccionado un área de aproximadamente 200.000 Has. en el área de Estudio para un reconocimiento de campo intensivo y un relevamiento fotogramétrico (en adelante denominado "Área Intensiva"), y un área de aproximadamente 30.000 Has. en el Área Intensiva para la formulación del modelo de manejo forestal (en adelante denominado "Área Modelo").

## 2. Alcance del Estudio.

El Estudio consistirá de las siguientes fases, y los planes de trabajo en cada fase son los siguientes:

### 2.1. Trabajos en la Fase 1.

(1) Recolección de datos e informaciones, y reconocimiento de campo.

- a. Condición socio-económica.
- b. Condiciones naturales,
- c. Políticas y regulaciones existentes concernientes con el Estudio.
  - Planes de desarrollo socio-económico nacional y regional.
  - Regulaciones ambientales,
  - Silvicultura y
  - Otros.
- d. Silvicultura e industrias relacionadas.
- e. Sistema y tecnología de manejo forestal.
- f. Posesión de la tierra y condiciones de la tenencia y
- g. Otros.

(2) Revisión de los bosques y otras condiciones de uso de la tierra mediante la investigación de los datos satelitales Landsat.

(3) Fotogrametría del Área intensiva (1/20.000).

(4) Preparación de cartas.

a. Carta de vegetación y suelos.

b. Carta de evaluación de recursos forestales.

c. Carta topográfica.

## 2.2. Trabajo en la Fase 2.

(1) Reconocimiento de recursos forestales del Área Modelo sobre :

a. Tipo de bosque y vegetación,

b. Regeneración natural,

c. Tabla de volúmen y

d. Tipo de suelos.

(2) Formulación de los lineamientos para el manejo de los recursos forestales en el Área de Estudio.

considerando aspectos ambientales sobre:

- Criterio para el Manejo de los bosques.

- Criterio para la conservación de los bosques.

- Otros.

## 2.3. Trabajos en la Fase 3.

(1) Formulación del plan de Manejo forestal sobre los siguientes ítems del Área Modelo.

a. Clasificación del bosque.

b. Uso de la tierra.

c. Plan de cortas.

- d. Forestación.
- e. Protección del bosque.
- f. Caminos forestales.

(2) Preparación de cartas y otras documentaciones del Área Modelo como los siguientes:

- a. Carta de bosque.
- b. Carta de suelo.
- c. Carta del plan de Manejo forestal e
- d. Inventario forestal.

#### IV. PROGRAMA DEL ESTUDIO

El estudio se llevará a cabo de acuerdo con el programa tentativo de tareas. (Ver Anexo 2).

#### V. INFORMES

JICA deberá preparar los siguientes informes en español para el Gobierno de la República Argentina. (Ver Anexo 2).

1. Informe Inicial:

20 copias al comienzo de las tareas de campo de la Fase 1.

2. Informe de Progreso (1):

20 copias en la mitad de las tareas de campo de la Fase 1.

3. Informe de Progreso (2):

20 copias al comienzo de las tareas de campo de la Fase 2.

4. Informe Intermedio:

20 copias al comienzo de las tareas de campo de la Fase 3.

5. Borrador del informe final:

20 copias al final de los estudios de la Fase 3. El Gobierno de la Argentina efectuará a JICA los comentarios sobre el

Borrador del informe final en el plazo de un (1) mes luego de recibido el mismo.

6. Informe Final:

50 copias en menos de dos (2) meses luego de recibidos los comentarios del Gobierno de la Argentina sobre el Borrador del Informe Final.

7. Cartas del Area de Estudio por datos satelitales del Landsat:

- (1) Carta de uso de la tierra y de vegetación  
(escala: 1/250.000)
- (2) Carta de evaluación de recursos forestales  
(escala: 1/250.000)

8. Fotografías aéreas en el Area Intensiva:

- (1) Peliculas en negativo (escala: 1/20.000 1 juego)
- (2) Impresiones de contacto (escala 1/20.000 1 juego)
- (3) Mapa indice.

9. Cartas y otros en el Area Modelo:

- (1) Carta topográfica (escala: 1/20.000 1 juego)
- (2) Carta de tipo de bosque (escala: 1/20.000 1 juego)
- (3) Carta de suelos (escala 1/20.000 - 1 juego)
- (4) Carta de manejo forestal (escala:1/20.000 1 juego)
- (5) Inventario forestal (1 juego)

VI. COMPROMISOS POR PARTE DEL GOBIERNO DE LA REPUBLICA ARGENTINA.

1. El Gobierno de la República Argentina acordará los privilegios, exenciones y demás beneficios para la Misión del Estudio, en conformidad al Convenio de Cooperación Técnica entre los Gobierno del Japón y de la República Argentina.

2. Para facilitar un adecuado desarrollo del estudio, el

Gobierno de la Argentina tomará los siguientes recaudos:

- (1) Garantizar la seguridad de los miembros de la Misión de Estudio.
- (2) Permitir a los miembros de la Misión el ingreso, partida y permanencia en la Argentina a lo largo de su estadía en el país, y eximirlos de los requerimientos de registros de extranjeros y derechos consulares.
- (3) Eximir a los miembros de la Misión del Estudio de impuestos, obligaciones y demás cargos en equipamiento, maquinaria y demás materiales adquiridos dentro de la República Argentina para la ejecución del Estudio.
- (4) Eximir a los miembros de la Misión de Estudio de impuestos sobre rentas y cargos de otro tipo que puedan imponerse en relación a emolumentos o concesiones abonadas a los miembros de la Misión por sus servicios relacionados a la ejecución del Estudio.
- (5) Proveer a la Misión de las facilidades necesarias tanto como para la remisión como para el uso de los fondos introducidos en la Argentina desde el Japón en relación a la ejecución del Estudio.
- (6) Garantizar el permiso de ingreso a propiedades privadas o áreas restringidas para la ejecución del Estudio.
- (7) Garantizar el permiso para talar los árboles y coleccionar las plantas necesarias para la implementación del Estudio.
- (8) Garantizar el permiso para la Misión para obtener todo tipo de datos, documentación (incluyendo fotografías

aéreas y películas positivas) relacionados con el Estudio fuera de la Argentina al Japón.

(9) Garantizar el permiso de vuelos para fotografías aéreas y el uso de aeropuertos para la implementación del Estudio.

(10) Garantizar la autorización para el uso de equipos de comunicación, incluyendo tranceptores.

(11) Proveer atención médica a los miembros de la Misión. En caso de ser necesario, los gastos serán cubiertos por los miembros de la Misión.

3. El Gobierno de la Argentina se hará cargo de las demandas que quedan surgir contra los miembros de la Misión, como resultado del cumplimiento de sus tareas durante la ejecución del Estudio, excepto cuando dichas demandas surjan de graves negligencias o conductas inadecuadas por parte de los miembros de la Misión.

4. El Gobierno de la Provincia de Formosa deberá actuar como contraparte de la Misión Japonesa y también como coordinador en relación con otras organizaciones gubernamentales y no gubernamentales para la implementación del Estudio.

5. El Gobierno de la Provincia de Formosa proveerá a la Misión, bajo su propio costo, y en cooperación con otras organizaciones relevantes concernientes, lo siguiente:

(1) Datos, Mapas e Informaciones disponibles relacionados con el Estudio.

(2) Personal de contraparte.

(3) Espacio de oficina apropiado con los equipos e

instalaciones necesarios en Formosa a Ing. Guillermo N. Juárez.

(4) Credenciales o tarjetas identificatorias.

(5) Numero apropiado de vehiculos, con chofer, dactilógrafa y operarios necesarios para la implementación del Estudio.

#### VII. COMPROMISOS DE JICA.

Para la implementación del Estudio, JICA deberá tomar las siguientes medidas:

(1) Enviar, bajo su propio costo, la Misión hacia la Argentina.

(2) Efectuar la transferencia de tecnología al personal de contraparte Argentino durante el desarrollo del Estudio.

#### VIII. OTROS.

(1) JICA y el Gobierno de la Provincia de Formosa se consultarán mutuamente el uno al otro en relación a las cuestiones que puedan surgir de o en conexión con el Estudio.

(2) El alcance de trabajo se prepara en idioma inglés y castellano. En caso de surgir discrepancias en la interpretación, se consultará el texto inglés.





Tentative Work Schedule

APPENDIX II

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
THE STUDY IN JAPAN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
THE STUDY IN ARGENTINE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SUBMISSION OF REPORTS	Δ IC/R	Δ PG/R-( I )	Δ PG/R-( I )	Δ PG/R-( I )	Δ PG/R-( I )	Δ PG/R-( I )	Δ PG/R-( I )	Δ PG/R-( I )	Δ PG/R-( I )	Δ PG/R-( I )	Δ PG/R-( I )	Δ PG/R-( II )	Δ PG/R-( II )	Δ PG/R-( II )	Δ PG/R-( II )	Δ PG/R-( II )	Δ IT/R	Δ IT/R	Δ IT/R	Δ IT/R	Δ IT/R	Δ IT/R	Δ IT/R	Δ IT/R	Δ DF/R	Δ DF/R	Δ F/R	Δ F/R
PHASE	PHASE - 1			PHASE - 2				PHASE - 2				PHASE - 2				PHASE - 3				PHASE - 3								

NOTE IC/R : Inception Report    DF/R : Draft Report    F/R : Final Report  
 PG/R : Progress Report    II/R : Interim Report

MINUTA DE REUNIONES

SOBRE EL

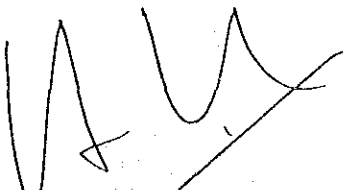
ALCANCE DE TRABAJO

PARA

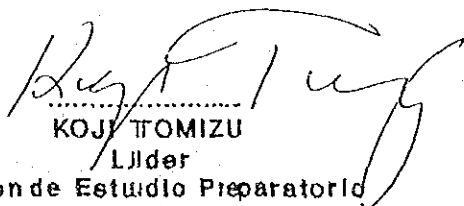
EL ESTUDIO SOBRE EL INVENTARIO Y MANEJO FORESTAL

EN LA REGION DEL PARQUE CHAQUERO

Formosa, 20 de Julio de 1983.



.....  
VICENTE B. JOGA  
Gobernador  
Pcia. de Formosa



.....  
KOJI TOMIZU  
Lider  
Mision de Estudio Preparatorio  
Agencia de Cooperacion  
Internacional del Japon

La Misión del Estudio Preparatorio (en adelante denominada "La Misión") organizado por la Agencia de Cooperación Internacional del Japón (en adelante denominada "JICA") presidida por el Sr. Koji TOMIZU, visitó la República Argentina desde el 13 al 24 de Julio de 1.993 con el propósito de discutir y confirmar el Alcance del Trabajo para el Estudio sobre el Inventario y Manejo Forestal en la Región del Parque Chaqueño en la República Argentina (en adelante denominado "El Estudio").

La Misión tuvo una serie de discusiones con las autoridades del Gobierno de la Provincia de Formosa, (República Argentina), (en adelante denominada "G.P.F.") sobre el Alcance de Trabajo del Estudio. En el Anexo se adjunta la lista de participantes de una serie de reuniones.

Los principales resultados discutidos y acordados por el (G.P.F) y la Misión, son los siguientes:

1. El G.P.F. requirió las siguientes cuestiones a la Misión y la Misión prometió transmitir los requerimientos al Gobierno del Japón.

(1) Obtención de los equipamientos para el Estudio por JICA y la donación de los mismos, al Gobierno de la Provincia de Formosa luego de la finalización del Estudio.

- Vehículos de doble tracción.

- Computadora personal.

- Fotocopiadora .

- Fax.

- Equipamiento para el relevamiento.

(2) Capacitación de contraparte argentina en Japón.

(3) Realizar un seminario para facilitar la comprensión de los resultados del Estudio para las personas relacionadas, simultáneamente con la presentación del Borrador del Informe Final.

2. El G.P.F. expresó que efectuarán los esfuerzos necesarios y tomarán las siguientes medidas necesarias para la buena implementación del Estudio.

(1) Conseguir el apoyo de las universidades y otros organismos gubernamentales relacionados al Estudio.

(2) Asegurar el cumplimiento de los compromisos de la Argentina mencionados en el parágrafo VI del Alcance de Trabajo, en estrecha colaboración con las autoridades concernientes del Gobierno Central.

3. Asignación de recursos financieros para los viáticos y funcionamiento del personal de contraparte argentino.

A N E X O

ASISTENTES POR LA PARTE ARGENTINA

- DR. VICENTE E. JOBA - GOBERNADOR DE LA PROVINCIA DE FORMOSA.  
GILOD INFRAN - VICE GOBERNADOR DE LA PROVINCIA DE FORMOSA.  
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