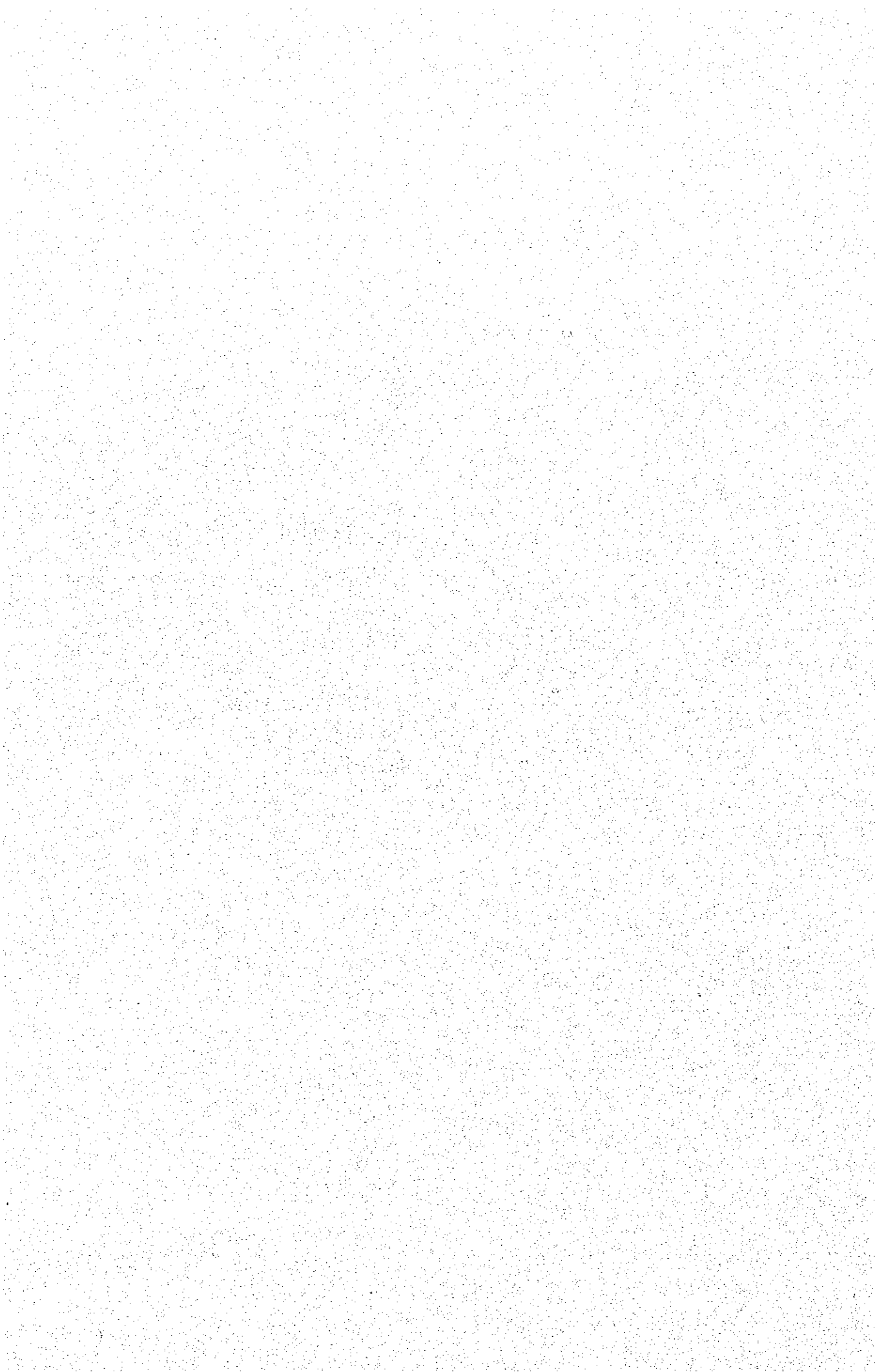


## 調査実施細則及び協議議事録

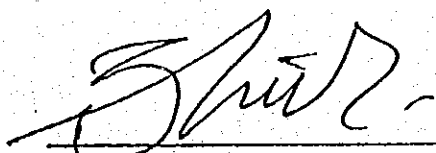
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- ・調査実施細則
- ・調査実施細則に係わる協議議事録
- ・インセプションレポートに係わる協議議事録
- ・プログレスレポートに係わる協議議事録
- ・インテリムレポートに係わる協議議事録
- ・ドラフトファイナルレポートに係わる協議議事録

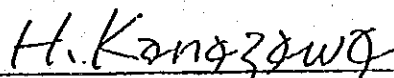


SCOPE OF WORK  
FOR  
THE FEASIBILITY STUDY ON FORESTS RESTORATION  
IN ROMANIAN PLAIN  
AGREED UPON BETWEEN  
MINISTRY OF WATERS, FORESTS AND ENVIRONMENT PROTECTION  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY

Bucharest, April 16, 1997



Mr. Ioan SECELEANU  
Secretary of State  
Ministry of Waters, Forests and  
Environment Protection  
Romania



Mr. Hiroyuki KANAZAWA  
Team Leader  
The Preparatory Study Team  
Japan International Cooperation Agency  
Japan

## I. INTRODUCTION

In response to the request of the Government of Romania, the Government of Japan has decided to conduct a Feasibility Study on Forests Restoration in Romanian Plain (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 programmes 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 elaborate a forest restoration plan which proposes the possible countermeasures for establishment of stable forests to prevent the environment from further degradation, and,
- (2) to transfer technology to the counterpart personnel through the implementation of the Study.

## III. SCOPE OF THE STUDY

### 1. Study Area

The Study Areas are Dolj and Olt counties (see Appendix 1)

### 2. Outline of the Study

In order to achieve the objectives mentioned above, the Study will be conducted in the Study Area as follows:

- (1) Collection and analysis of existing data on natural and social conditions
  - Natural conditions
  - Socio-economic conditions
- (2) Aerial photography



- (3) Photo interpretation
  - Defoliation type and degree
  - Tree species
  - Crown density
  - Stand height
  - Others
- (4) Ground surveys
  - Topography
  - Vegetation
  - Biometric parameters
  - Soil
  - Climate/Hydrology
  - Type and degree of decline
  - Others
- (5) Socio-economic surveys
- (6) Preparation of the following thematic maps
  - Vegetation maps
  - Forest damage classification map
- (7) Preparation of the forest restoration plan including the following components
  - Suitable tree species
  - Propagation
  - Silvicultural tending
  - Infrastructure
  - Organization/Management
  - Machinery/Equipment
- (8) Assessments of the feasibility of the forest restoration plan
  - Cost estimation
  - Financial and economic analysis
- (9) Preparation of the forest restoration planning maps

#### IV. STUDY SCHEDULE

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



## V. REPORTS

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

1. Inception Report  
Twenty (20) copies at the commencement of the Study
2. Progress Report (I)  
Twenty (20) copies at the beginning of the Study
3. Interim Report  
Twenty (20) copies at the middle of the Study
4. Draft Final Report  
Twenty (20) copies at the later of the Study. The Government of Romania 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 of the Government of Romania on the Draft Final Report.

In addition to the above reports, the following are to be submitted to the Government of Romania with relevant reports.

- 1) Aerial photography in the Study Area (1set):
  - Original films
  - Contact prints
- 2) Maps in the Study Areas (First original 1set, Second original 1set)
  - Vegetation maps
  - Forest damage classification maps
  - Forest restoration planning maps

## VI. UNDERTAKING 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;

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*[Handwritten signature]*

- (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 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 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;
  - (5) to provide necessary facilities to the Japanese study team for remittance as well as utilization of the funds introduced into Romania 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 photographs) related to the Study out of Romania to Japan; and
  - (8) to provide medical services as needed. Its expenses will be chargeable to members of the Japanese study team.
2. The Government of the Romania shall bear claims, if any arise 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 Waters, Forests and Environment Protection (hereinafter referred to as "MWFEP") shall act as a counterpart agency to the Japanese study team and also as a coordinating body in relations with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.
4. MWFEP shall, at its own expense, provide the Japanese study team with the following, in cooperation with other organizations concerned:
- (1) available data and information related to the Study,
  - (2) counterpart personnel,
  - (3) suitable office spaces with necessary equipment in Bucharest, Dolj and Olt counties, and
  - (4) credentials or identification cards.

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*[Handwritten signature]*

## VII. UNDERTAKING OF JICA

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

- (1) to dispatch, at its own expense and on a grant basis, the study teams to Romania, and
- (2) to pursue technology transfer to the Romanian counterpart personnel in the course of the Study.

## VIII. OTHERS

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

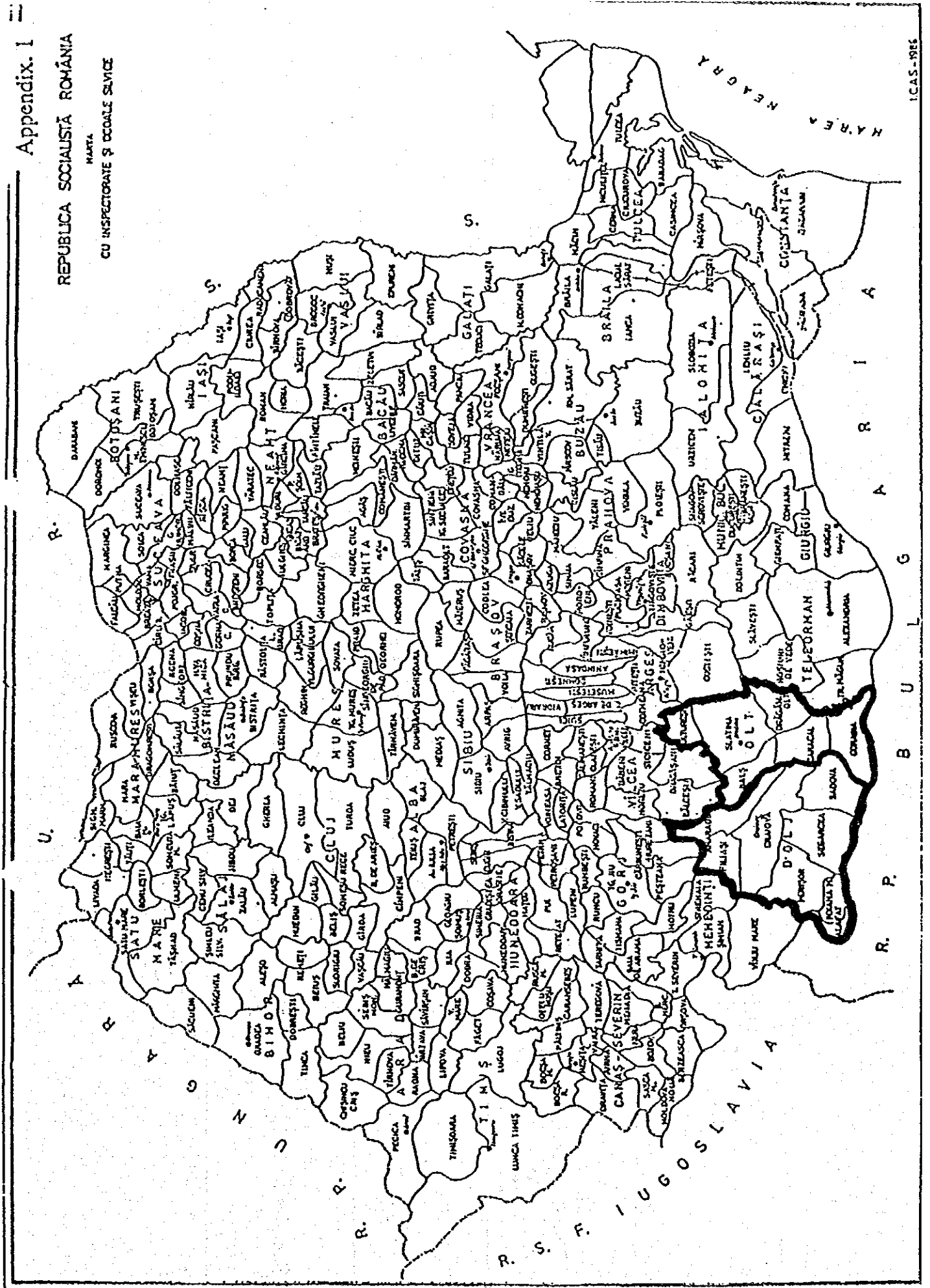
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HKZ



REPUBLICA SOCIALISTĂ ROMÂNIA

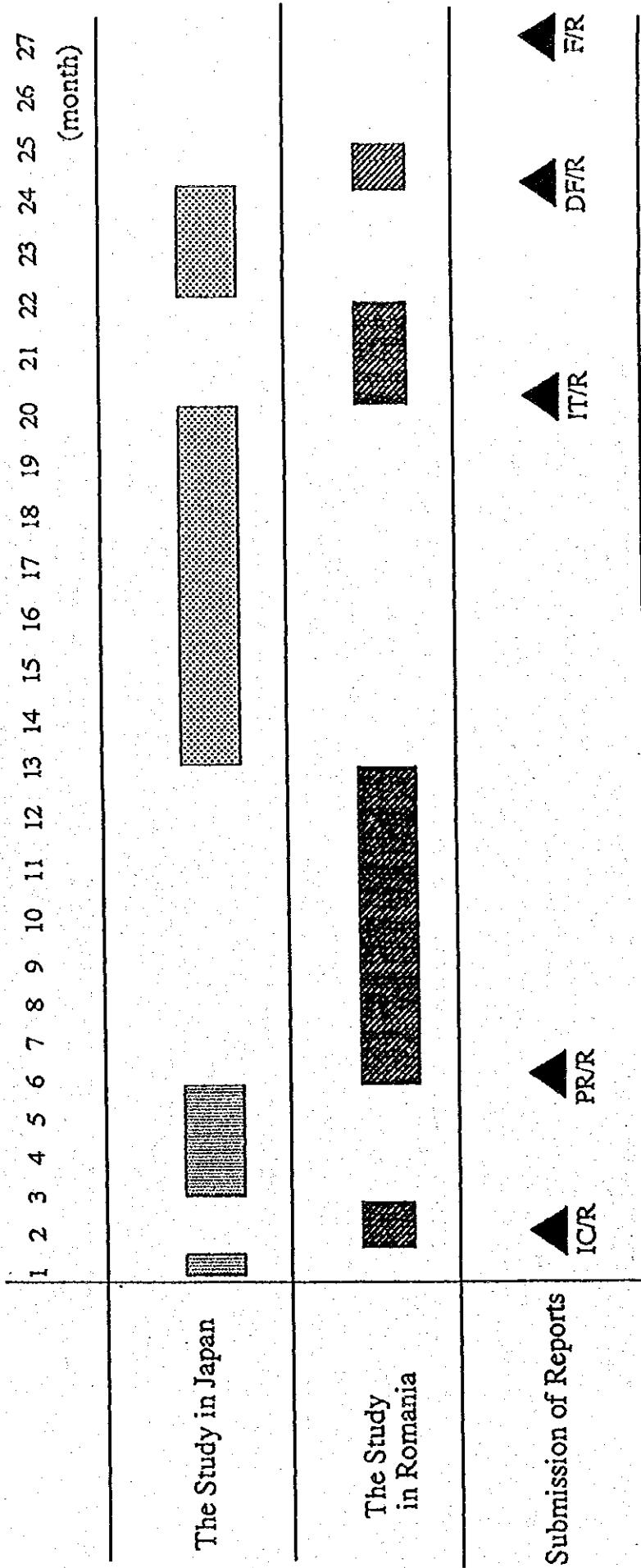
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CU INSPECTORATE ȘI DOCALE SERVICE



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Tentative Study Schedule



(Remarks)

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

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MINUTES OF MEETING  
ON  
SCOPE OF WORK  
FOR  
THE FEASIBILITY STUDY  
ON  
FORESTS RESTORATION IN ROMANIAN PLAIN

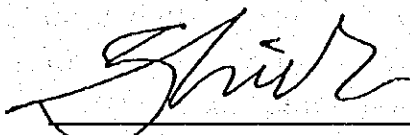
The preparatory study team (hereinafter referred to as " the Team ") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of the Government of Japan, headed by Mr. KANAZAWA, visited Romania from April 7 to 16, 1997 for the purpose of discussing and confirming the Scope of Work for the Feasibility Study on Forests Restoration in Romanian Plain (hereinafter referred to as "the Study").

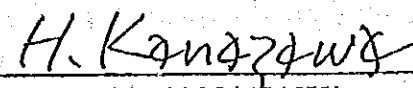
The Team had a series of discussions with the officials concerned of the Ministry of Waters, Forests and Environment Protection, (hereinafter referred to as "MWFEP") headed by Mr. I. SECELEANU on the Scope of Work of the Study.

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

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

Bucharest, April 16, 1997

  
\_\_\_\_\_  
Mr. Ioan SECELEANU  
Secretary of State  
Ministry of Waters, Forests and  
Environment Protection  
Romania

  
\_\_\_\_\_  
Mr. Hiroyuki KANAZAWA  
Team Leader  
The Preparatory Study Team  
Japan International Cooperation Agency  
Japan

## ANNEX

The following are the main issues discussed in relation to the Scope of Work for the Study:

1. Both sides confirmed that National Administration of The Forest (hereinafter referred to as "RNP") and Forest Research and Management Institute (hereinafter referred to as "ICAS") would be also act as counterpart organizations with MWFEP.
2. The Team requested that MWFEP would take necessary permissions from the authorities concerned for taking aerial photos (color infrared, scale 1/20,000) and taking them out of Romania for interpretation, and for taking topographic maps (scale 1/25,000) out of Romania for categorization of forests based on defoliation type and degree and mapping the thematic maps. MWFEP accepted this request.
3. MWFEP promised that it would provide Romanian counterpart personnel from MWFEP, RNP and ICAS during the implementation of the Study.
4. Romanian side requested that during the implementation of the Study in Japan, the Romanian counterpart personnel should be trained concerning the Study. The Team agreed the idea and explained that it is necessary to submit an official request through the diplomatic channel for the counterpart training.
5. MWFEP requested the Team that JICA would consider providing necessary equipment for the technology transfer concerning the Study. The Team promised to convey the request to the Government of Japan.
6. The Team explained that the equipment to be used by the Japanese study team would be the property of Japanese side unless further official request of donation be accepted by JICA at the time of completion of the Study.
7. Both sides agreed that the Study should include a technology transfer seminar at the stage of explanation of the Draft Final Report to disseminate the results of the Study. The seminar is to be jointly organized by the Romanian side and the Japanese study team.
8. Both sides agreed that basically final report would be publicized to the people who were interested in the Study.



## LIST OF PARTICIPANTS

SUBJECT : Feasibility Study on Forests Restoration in Romanian Plain  
DATE : April 7 - 16, 1997  
PLACE : Bucharest, Olt County and Dolj County

### 1. Ministry of Waters, Forests and Environment Protection

Mr. I. Seceleanu Secretary of State  
Ms. A. Jucan Director  
Mr. C. Zaharescu Expert

### 2. National Office of Cadastre Geodesy and Cartography

Dr. M. Rotaru President  
Mr. Chiriacescu Deputy Director

### 3. National Administration of Forest

Mr. Gh. Cahnita Director General  
Mr. L. Contescu Senior Engineer  
Mr. N. Florica Director, Forest Branch "Slatina"  
Mr. A. Suschievici Deputy Director, Forest Branch "Slatina"  
Mr. I. Mitran Chief of Bals Forest District, Forest Branch "Slatina"  
Mr. T. Popa Director, Forest Branch "Craiova"  
Mr. I. Cojocaru Deputy Director, Forest Branch "Craiova"  
Mr. Gh. Folea Chief of Perisor Forest District, Forest Branch "Craiova"  
Ms. E. Nuta Chief of Craiova Forest District, Forest Branch "Craiova"

### 4. Forest Research and Management Institute

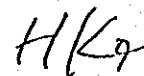
Dr. N. Geambasu Director  
Dr. C. Rosu Engineer, Specialist  
Mr. O. Badea Engineer, Specialist  
Mr. V. Ganz Engineer, GIS and RS unit  
Mr. F. Danescu Engineer, Soils laboratory  
Ms. M. Cuceriaev Engineer, Photogrammetry

### 5. Preparatory Study Team, JICA

Mr. H. Kanazawa Leader  
Mr. Y. Nakayama Coordinator  
Mr. H. Taoda Silviculture of Broad-leaved Tree  
Mr. K. Morisada Soil  
Dr. H. Sawada Forest Aerial Photogrammetry

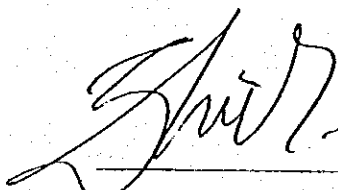
### 6. Others

Mr. S. Nishimura Embassy of Japan  
Mr. S. Shirai Embassy of Japan  
Mr. S. Fujita Embassy of Japan

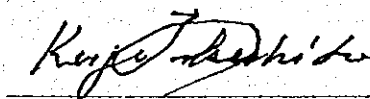


MINUTES OF MEETING  
ON  
INCEPTION REPORT  
FOR THE FEASIBILITY STUDY  
ON  
FORESTS RESTORATION IN ROMANIAN PLAIN

Bucharest, September 29, 1997

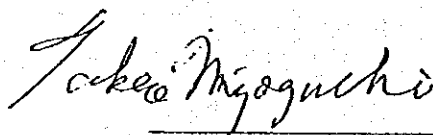


Mr. Ioan SECELEANU  
Secretary of State  
Ministry of Waters, Forests and  
Environment Protection  
Romania



Dr. Keiji TAKESHITA  
Leader  
The Study Team for The  
Feasibility Study on Forests  
Restoration in Romanian Plain  
Japan

Witnessed by



Mr. Takeo MIZOGUCHI  
JICA Advisory Team  
Japan

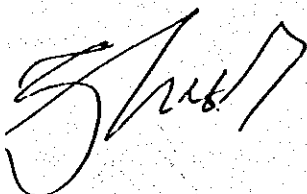
In accordance with the Scope of Work for The Feasibility Study on Forests Restoration in Romanian Plain (hereinafter referred to as "The Study") agreed upon between the Ministry of Waters, Forests and Environment Protection (hereinafter referred to as "MWFEP") headed by Mr. Ioan SECELEANU, Secretary of State of MWFEP, and Japan International Cooperation Agency (hereinafter referred to as "JICA"), The Study Team for The Study (hereinafter referred to as "the Study Team") headed by Dr. TAKESHITA, Leader of the Study Team, prepared and submitted the twenty copies of the Inception Report for The Study (hereinafter referred to as "the Inception Report") to Romanian side.

The meeting of the Inception Report organized by MWFEP was held on September 24 -- 25, 1997 at the meeting room of National Administration of The Forest (hereinafter referred to as "RNP") with attendance of JICA Advisory Team headed by Mr. Takeo Mizoguchi. The other attendants of the meeting are as per attached.

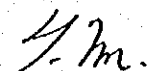
The meeting was opened by Mr. Ioan SECELEANU, and chaired by Mr. Ovidiu BADEA, Scientific Director of Forest Research and Management Institute (hereinafter referred to as "ICAS") and Mr. Mihai DAIA, Technical Director of RNP. The Chairperson, Mr. BADEA, presented the general agenda to the participants. Upon the request by Mr. BADEA, the Study Team had a series of discussions with the officials concerned of MWFEP, RNP and ICAS on the Inception Report.

As a result of discussions, the Inception Report were basically accepted by the participants. The Chairpersons expressed their deep thanks to JICA Advisory Team and the Study Team on their efforts in starting the Study. It was confirmed that the Feasibility Study would proceed in accordance with the Inception Report.

The main issues discussed by the both sides in relation to the Inception Report are shown in the ANNEX as attached hereto.



1



## ANNEX1

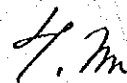
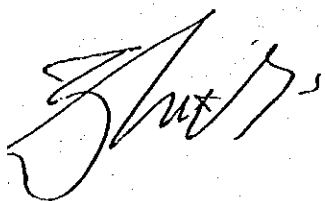
After the explanation of the Inception Report by The Study Team, Romanian side and Japanese side confirmed the following issues relating to the execution of the Study.

1. Both sides agreed to the following with regard to the contents and process of the Inception Report.

- (a) The scales of the aerial photos changed from 1/20,000 to 1/25,000.
- (b) The scales of the Thematic Maps will be made by 1/25,000.
- (c) Romanian side would provide publication and information (including maps) relating to the forest decline in Romania to the Study Team.
- (d) Romanian side would cooperate in the selection of experimental locations.
- (e) Romanian side would prepare the fields for seedling propagation including cutting and grafting trials.
- (f) Both sides confirmed that transfer technology would proceed with transfer technology plan (draft) submitted by the Study Team.

2. The Romanian side agreed to the following requests from the Study Team.

- (a) The Romanian side would designate counterpart personnel for 10 members of the Study Team from RNP and ICAS by the end of the Study. The fields of the ten members are as follows:
  - Forest Conservation
  - Financial and Economic Analysis
  - Socioeconomy





- Forest Ecology and Environment
- Reforestation and Nursing
- Forest Diseases and Harmful Insects
- Soil
- Climate and Forest Hydrology
- Forest Survey
- Forest Management

(b) The Romanian side would provide 1/50,000 scale forestry maps to the Study Team for satellite image analysis of the study area.

(c) The Romanian side would provide offices with necessary equipment in Bucharest, Olt, and Dolj to the Study Team as soon as possible.

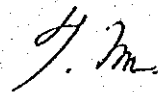
(d) The Romanian side would assist to select field workers in Olt and Dolj to the Study Team. The Study Team would employ them in accordance with the recommendation.

3. The Japanese side agreed to the following requests from the Romanian side.

(a) For investigation of forest decline, following subjects would be considered; air pollution, soil pollution and their long term monitoring.

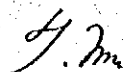
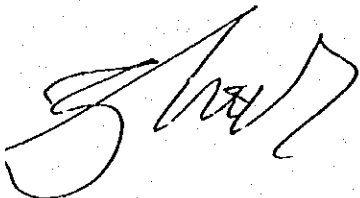
(b) There is a great need in identifying the necessary technical measures which is to be used in the development of forest vegetation, so as to overcome the limitation factor which is represented by clay layers.

(c) Aspects regarding the harmful insects control will be considered exclusively on biological and other



similar methods so as not to affect the forestry ecosystem, which is already a very sensitive environment.

- (d) A more profound research and development for the vegetative propagation of biological material.
- (e) According to the requests of the Romanian side for map making methods, costs and the way of application of Thematic Maps, the Japanese side would prepare information about it.



## LIST OF PARTICIPANTS

**SUBJECT:** The Inception Report for The Feasibility Study on Forests Restoration in Romania Plain

**DATE :** September 24 – 25, 29 1997

**PLACE :** Bucharest

### **The Ministry of Waters, Forests and Environment Protection**

- Mr. Ioan Seceleanu - Secretary of State
- Mr. Filimon Carcea - Counselor to the Ministry
- Mr. Claudiu Zaharescu - Expert
- Mr. Ion Munteanu - Expert

### **The National Administration of Forestry**

- Mr. Gheorghe Cahnita - General Director
- Mr. Dominic Denes - General Deputy Director
- Mr. Mihai Daia - Technical Director
- Mr. Dragos Mihai - Forest Protection
- Mr. Valerian Jinga - Expert
- Mr. Constantin Conduneanu - Chief of Service
- Mr. Traian Fulicea - Forest Protection
- Mr. Nicolae Avram - Forestry Fund
- Mr. Stelian Haroidon - Monitoring of Forest Use
- Mr. Liviu Furnicescu - Chief of Service Investment Division

### **Forest Research and Management Institute**

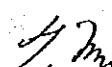
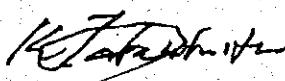
- Mr. Ovidiu Badea - Scientific Director
- Dr. Constantin Rosu - Pedology
- Mr. Nicolae Donita - Expert

### **JICA Advisory Team:**

- Mr. Takeo Mizoguchi - Silviculture
- Mr. Yasunori Nakayama - Coordinator

### **JICA Study Team**

- Dr. Keiji Takeshita - Team Leader, Forest Expert
- Mr. Tadayoshi Komiya - Sub Leader, Financial and Economic Analysis
- Dr. Juemon Itoh - Sub Leader, Forest Ecology and Environment
- Mr. Kozo Yamagaki - Reforestation and Nursing
- Mr. Nobuo Enda - Forest Diseases and Harmful Insects
- Mr. Akihito Sakurai - Forest Management
- Mr. Hideto Hosoda - Satellite Image Analysis / Supervision of Aerial Photography
- Mr. Takeshi Yamazaki - Work Coordination



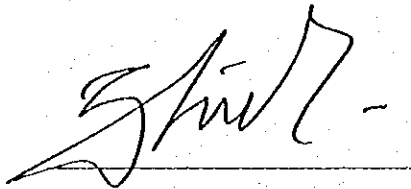
MINUTES OF MEETING  
ON  
PROGRESS REPORT  
FOR THE FEASIBILITY STUDY  
ON  
FORESTS RESTORATION IN ROMANIAN PLAIN

In accordance with the Scope of Work for The Feasibility Study on Forests Restoration in Romanian Plain (hereinafter referred to as "the Study") agreed on April 16<sup>th</sup> 1997, Japan International Cooperation Agency (hereinafter referred to as "JICA") started the Study in September 1997 by dispatching JICA Study Team to Romania.


The Study Team visited Romania from March 1 to March 7 1998 as second field survey. The Team submitted twenty copies of the Progress Report, and had a presentation of the Progress Report to the officials concerned of MWFEP, RNP, and ICAS.

As a result of discussions, the Progress Report was accepted by the participants. The main issues discussed by the all attendance in relation to the Progress Report are shown in the ANNEX 1 as attached hereto.

Bucharest, March 6, 1998

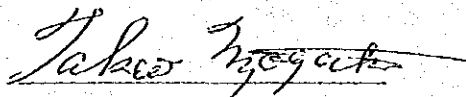


Mr. Ioan SECELEANU  
Secretary of State  
Ministry of Waters, Forests and  
Environment Protection  
Romania



Dr. Juemon ITOH  
Ag. Leader  
JICA Study Team  
Japan

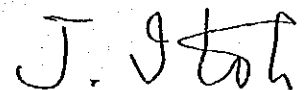
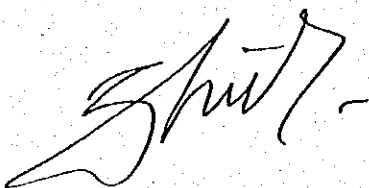
Witnessed by



Mr. Takeo MIZOGUCHI  
JICA Advisory Team  
Japan

## ANNEX 1

- (1) The Forest Restoration Plan would be, in principle, prepared on forests which were classified as Decline Degree 2 or higher by the Romanian forest monitoring survey.
- (2) Based on a joint schedule, the Romanian counterparts would accompany the Study Team for the entire duration of the third field survey and would cooperate with them.
- (3) Technology transfer would be mainly conducted through "On the job training" in the second year.
- (4) MWFEP facilitates the provision of the following items to the Study Team required for the Study: meteorological and hydrological data, and information on forest inventory books and topographical maps. The above items can freely be taken to Japan, according to the Romanian Law.
- (5) MWFEP takes the necessary measures to obtain the permits and authorizations of the aerial photography and also taking them out from Romania to Japan.
- (6) RNP Craiova and Slatina would record data of litter traps experiment after the Study Team goes back to Japan.
- (7) The Romanian Side requested to be set more allocation of counterpart training in Japan for efficient technology transfer.
- (8) The Romanian Side requested Japanese Study Team to acquire drivers and fuel for the two cars provided by JICA, when the Study Team is in Romania.



LIST OF PARTICIPANTS

SUBJECT: The Progress Report for the Feasibility Study on Forests Restoration in Romania Plain

DATE : March 3 – 6, 1998

PLACE : Bucharest

**The Ministry of Waters, Forests and Environmental Protection – MWFEP**

- Mr. Ioan Seceleanu - Secretary of State
- Mrs. Angelica Jucan -- Director -- Forest Management and Ecological Restoration
- Mr. Claudiu Zaharescu - Expert

**The National Administration of the Forest – RNP**

- Mr. Dominic Denes -- Assistant General Director
- Mr. Mihai Daia - Technical Director
- Mr. Liviu Contescu -- Chief of service -- Forest Regeneration
- Mr. Iulian Bercea -- Director -- RNP Craiova
- Mr. Gheorghe Lazar -- Expert -- RNP Craiova -- Forest Regeneration
- Mr. Ilie Suschievici -- Technical Director -- RNP Slatina

**Forest Research and Management Institute – ICAS**

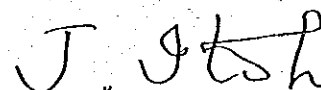
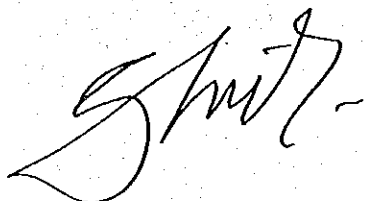
- Mr. Ovidiu Badea - Scientific Director
- Dr. Constantin Rosu -- Forest Site
- Mr. Gheorghe Marin -- Technical Director -- Forest Management Planning
- Dr. Nicolae Geambasu -- Pedology

**JICA Advisory Team**

- Mr. Takeo Mizoguchi - Silviculture
- Mr. Yukihide Katsuta - Coordinator

**JICA Study Team**

- Dr. Juemon Itoh -- Ag. Leader, Forest Ecology and Environment
- Mr. Tadayoshi Komiya - Sub Leader, Financial and Economic Analysis
- Mr. Hiroshi Takatoh - Soil



MINUTES OF MEETING  
ON  
INTERIM REPORT  
FOR THE FEASIBILITY STUDY  
ON  
FORESTS RESTORATION IN ROMANIAN PLAIN

In pursuance of the objective of the Scope of Work for The Feasibility Study on Forests Restoration in Romanian Plain (hereinafter referred to as "the Study") signed on April 16, 1997, Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Study Team for the Study (hereinafter referred to as "the Study Team") headed by Dr. Keiji TAKESHITA from February 22 to 26, 1999.

The Study Team submitted the 20 (twenty) copies of the Interim Report for the Study (hereinafter referred to as "the Interim Report") to the Romanian side and held a series of discussions with the Romanian Authorities concerned, as described in the following pages.

Bucharest,  
February 25, 1999

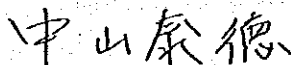


Mr. Anton VLAD  
Secretary of State  
Ministry of Waters, Forests and  
Environment Protection  
Romania



Dr. Keiji TAKESHITA  
Team Leader  
JICA Study Team  
Japan

Witnessed by



Mr. Yasumori NAKAYAMA  
JICA Advisory Team  
Japan

Based on the above mentioned discussions, both sides agreed on the following:

- (a) The description and contents of Vegetation Maps, Forest Damage Classification Maps and Forest Restoration Planning Maps as proposed by the Study Team.
- (b) The Fifth Field Survey will concentrate especially with regard to the following aspects:
  - On field confirmation of aerial photo interpretation;
  - Grouping of forest function for formulation of forest restoration plan;
  - The cutting method: ratio of tree cutting;
  - Reforestation methods: obtaining of the planting stock, planting density, mechanization works;
  - Methods of natural regeneration encouragement;
  - Infiltration Works: specification, relationship between soil moisture conditions and forest decline;
  - Evaluation of the Plan: financial - economic Analysis.
- (c) In order to improve the technical standards included in the Forest Restoration Plan, the restoration methods by damage grades and regeneration methods will be decided on the spot, during the Fifth Field Survey. The participants will be from ICAS, RNP and the Forest Branch Offices.
- (d) Regarding the Seminar on Technology Transfer the following were set:
  - Date: October, 1999 (The Sixth Field Survey)
  - Place: Bucharest
  - Themes: Causes of forest decline and countermeasures for restoration of declined forests; Evaluation of forest decline by interpretation of aerial photography.
  - Participants:
    - Romanian side: Staff of ICAS, RNP and the Forest Branch Offices.
    - Japanese side: JICA Study Team and Advisory Team.
  - Expenses
    - The Romanian Side will supply the necessary equipment, such as overhead projector, slide projector, etc. for the seminar.
    - The Study Team will bear the expenses for holding the seminar, such as rental fees for the seminar room, stationary, making documents, etc.
    - The Romanian side will bear the costs for the Romanian participants at the seminar, such as transportation expenses, hotel charges, etc.
- (e) The Romanian side will resume the collection of data in order to record: the volume of precipitation, water quality and soil moisture starting with April 1999. The Romanian counterparts which were trained by JICA Study Team will carry out these works.

The list of participants is given in ANNEX 1, attached.



## List of Attendance

SUBJECT: Feasibility Study on Forests Restoration in Romanian Plain

DATE : February 22 – 25, 1999

PLACE : RNP, Bucharest

1. The Ministry of Waters, Forests and Environmental Protection (MWFEP)
  - Mr. Anton VLAD, Secretary of State
  - Ms. Angelica JUCAN, Engineer, Director
  - Mr. Claudiu ZAHARESCU, Engineer, Expert
  - Mr. Ion MUNTEANU, Engineer, Expert
2. The National Administration of Forestry (RNP)
  - Mr. Dorin CIUCA, General Director
  - Mr. Gheorghe DIMA, Director
  - Mr. Liviu CONTESCU, Senior Engineer, Forest Production
  - Mr. Mihai DAIA, Chief of Regeneration Department
  - Mr. Dragos MIHAI, Forest Engineer, Forest Protection
  - Mrs. Rodica UNGUREANU, Engineer, Chief of Service Ecological Reconstruction
  - Mr. Constantin RUSNAC, Chief of Forest Road Service
3. Valcea Forest Branch Office (RNP Valcea)
  - Mr. Alic SUSCHIEVICI, Main engineer, Forest Range Slatina
  - Mr. Adriel COTET, Forest Engineer, Forest Regeneration, Forest Branch Valcea
4. Targu-Jiu Forest Branch Office (RNP Targu-Jiu)
  - Mr. Constantin TROCAN, Technical Director, Forest Branch Targu-Jiu
  - Mr. Iulian BERCEA, Chief of Filiasi Range Forest, Forest Branch Targu-Jiu
  - Mr. Nicolae PARVU, engineer, Forest Branch Targu-Jiu
5. Targoviste Forest Branch Office
  - Mr. Dan-Robert SIMION, Chief of Gaesti Nursery, Forest Engineer, Forest Branch Targoviste
6. Forest Research and Management Institute (ICAS)
  - Mr. Stefan MOISE, Technical Director
  - Mr. George MAN, Scientific Secretary of ICAS
  - Mr. Ovidiu BADEA, Senior researcher
  - Mr. Gheorghe MARIN, Engineer
  - Dr. Constantin ROSU, Senior researcher
  - Dr. Nicolae GEAMBASU, Senior researcher
  - Dr. Nicolae DONITA, Expert
  - Mr. Viorel BLUJDEA, Researcher
  - Mr. Laurentiu POPOVICI, Senior researcher
  - Mr. Iovu Adrian BIRIS, Researcher
  - Mrs. Simona DRAGOI, Senior researcher
  - Mr. Vladimir GANCZ, Senior researcher
7. JICA Advisory Team
  - Mr. Yasunori NAKAYAMA, Coordinator
8. JICA Study Team
  - Dr. Keiji TAKESHITA, Team Leader
  - Dr. Juemon ITOH, Co-Leader,
  - Mr. Tadayoshi KOMIYA, Co-Leader

*gm.*

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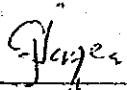
MINUTES OF MEETING  
ON  
THE DRAFT FINAL REPORT  
OF  
THE FEASIBILITY STUDY  
ON  
FORESTS RESTORATION IN ROMANIAN PLAIN


In pursuance of the objective of the Scope of Work for The Feasibility Study on Forests Restoration in Romanian Plain (hereinafter referred to as "the Study") signed on April 16, 1997, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Study Team for the Study (hereinafter referred to as "the Study Team") headed by Dr. Keiji TAKESHITA from October 31 to November 7, 1999.

The Study Team submitted the twenty (20) copies of the Draft Final Report for the Study (hereinafter referred to as "the Draft Final Report") in English to the Romanian side, and held a series of discussions with the Romanian Authorities concerned, and held a seminar in Bucharest on November 4, 1999.

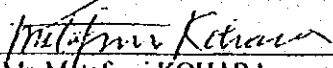
The salient results of the discussions are described in Annex as attached hereto.

Bucharest,  
November 5, 1999

  
Mr. Gheorghe LAZEA  
General Secretary  
Ministry of Waters, Forests and  
Environment Protection,  
Romania

  
Dr. Keiji TAKESHITA  
Team Leader of the Study Team,  
Japan Forest Civil Engineering  
Consultants Foundation,  
Japan

Witnessed by:

  
Mr. Motofumi KOHARA  
Leader of the Advisory Team  
Forestry and Fisheries Development Study Division,  
Agriculture, Forestry and Fisheries Development  
Study Department,  
Japan International Cooperation Agency

## Annex 1

### 1. The Conclusions of the Meeting on the Draft Final Report

(1) During the two-day explanation and discussion meeting, the Romanian side expressed the following opinions:

- It is desirable that the minimum area of damaged forests destined to cutting and reforestation to be enlarged to 5,000 m<sup>2</sup> or more for a proper growth of the planted trees.
- It is desirable that in the *Quercus* spp. damaged forests the belts for plowing to be larger than 10 m. Also in the *Robinia pseudoacacia* damaged forests with bad soil conditions in which planting of *Quercus* seedlings is planned, it is desirable that the works of soil preparations and plantings should to be done on the entire area.

(2) The Study Team responded as follows:

- Forests Restoration Plan was formulated according to the forest management techniques which were established during the on-site discussions held in June 1999 by the experts of both sides.
- The process of formulating Forest Restoration Plan based on the above-mentioned management techniques was described in the Draft Final Report. This process was fully understood by the Romanian side.

(3) The Romanian side can implement this plan with some necessary modifications for the action plans. Therefore, it was agreed that there is not necessary to change the content of the Draft Final Report.

### 2. Presentation of the Thematic Maps

The Romanian side received two (2) kinds of thematic maps of the Study as follows:

- Vegetation Maps
  - One (1) set of the original maps
  - One (1) set of the second original maps
  - Three (3) sets of blue prints
- Forest Damage Classification Maps
  - One (1) set of the original maps
  - One (1) set of the second original maps
  - Three (3) sets of blue prints

Also the Study Team presented the Forest Restoration Planning Maps (Draft) to the Romanian side, and the Romanian side agreed with the format of these maps.

The Forest Restoration Planning Maps will be submitted to the Romanian side together with the Final Report.

### 3. Comments on the Draft Final Report

The Romanian side will provide JICA with other comments on the Draft Final Report by November 30 after receipt of the Draft Final Report.

Plan.

14/ 4/97

#### 4. Final Report

Within two (2) months after receipt of the comments, JICA will send fifty (50) copies of the Final Report in English to the Romanian side. Both sides agreed that the Final Report would be available to any persons who have interest in the Study.

#### 5. Survey Equipment

The Romanian side requested donation of the equipment used by the Study Team as attached in Annex

3. JICA agreed to take necessary measures after receiving the request from the Romanian side.

The list of participants is given in Annex 2, as attached.

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## Annex 2

### *List of Participants*

*SUBJECT: The Draft Final Report for the Feasibility Study on Forests Restoration in Romanian Plain*

*DATE: 2<sup>nd</sup> to 5<sup>th</sup> NOVEMBER 1999*

*PLACE: Bucharest, Romania*

#### *Ministry of Waters, Forests and Environmental Protection (MWFEP)*

Mr. Gheorghe LAZEA – General Secretary

Mr. Tinel GHEORGHE – Director

Dr. Angelica JUCAN – Chief of Compartment

#### *The National Administration of Forestry (RNP)*

Mr. Gheorghe DIMA – Director

Ms. Rodica UNGUREANU – Chief Afforestations

Mr. Dragos MIHAI – Principal Engineer

Mr. Liviu CONTESCU – Principal Engineer

#### *Ramnicu Valcea Forest Branch Office*

Mr. Alic SUSCHIEVIC – Principal Engineer

Mr. Adriel COTET – Principal Engineer

#### *Targu Jiu Forest Branch Office*

Mr. Cornel DUMBRAVA – Chief Afforestations

Mr. Nicolae PARVU – Principal Engineer

Ms. Elena NUTA – Chief Engineer Ocolul Silvic Craiova

#### *Targovisite Forest Branch Office*

Mr. Dan Robert SIMION – Chief Forest Nursery

#### *Forest Research and Management Institute (ICAS)*

Mr. George MAN – Director

Dr. Ovidiu BADEA – Scientific Director

Mr. Stefan MOISE – Technical Director

Dr. Nicolae GEAMBASU – Chief Ecology Laboratory

Mr. Viorel BLUJDEA – Researcher

Ms. Simona DRAGOI – Researcher

Mr. Laurentiu POPOVICI – Researcher

Mr. Adrian Iovu BIRIS – Researcher

Dr. Constantin ROSU – Researcher

Dr. Nicolae DONITA – Researcher

#### *JICA/JCV Romania Office*

Mr. Hiroaki OKUBO – Resident Representative

#### *JICA Advisory Team*

Mr. Motofumi KOHARA – Director, JICA

Dr. Takefumi IKEDA – Forest Ecology/Forest Protection

Ms. Sayako TOKUDA – Coordinator, JICA

#### *JICA Study Team*

Dr. Keiji TAKESHITA – Team Leader

Mr. Tadayoshi KOMIYA – Sub Leader, Financial and Economic Analysis

Mr. Akihito SAKURAI – Forest Management

## Annex 3

## List of Equipment

Description		Quantity
Soil EC Meter	Fujiwara Corp. SPAD PK-33	1
Soil pH Tester	Fujiwara Corp. SPAD PHS-120	1
Soil Nitric Acid Ion Meter	Fujiwara Corp. SPAD NOS-120	1
Water Nitric Acid Ion Meter	Fujiwara Corp. SPAD NOW-120	1
Electronic Tensiometer	Soil Moisture Equipment Corp. 5910-A	1
Soil Penetration Tester	Hasegawa Corp. H-100	1
Permeability Test Apparatus	Hasegawa Corp.	1

JICA