

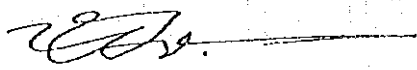
Annex-2

SCOPE OF WORK
FOR
THE MASTER PLAN STUDY
ON
THE INTEGRATED AGRICULTURAL AND RURAL DEVELOPMENT
IN
CENTRAL REGION
IN
THE MONGOLIA

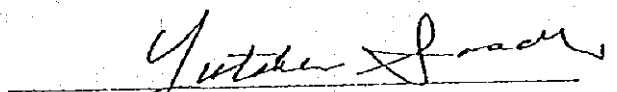
AGREED UPON BETWEEN

THE MINISTRY OF FOOD AND AGRICULTURE
OF
THE MONGOLIA
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

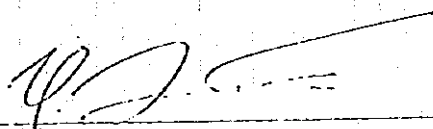
ULAANBAATAR, 17th MARCH, 1994



Mr. Chultemyn Peralai
General Director,
Economics and International Cooperation
Department,
Ministry of Food and Agriculture



Mr. Yutaka Sasaki
Leader,
JICA Study Team



Mr. Choindongiin Enebish
Deputy Director,
Department of Industrial Trade and Cooperation,
Ministry of Trade and Industry

I. INTRODUCTION

In response to the request of the Government of Mongolia the government of Japan decided to conduct The Master Plan Study on the Integrated Agricultural and Rural Development in Central Region in the Mongolia (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

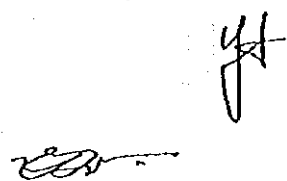
Accordingly the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programmes of the Government of Japan, will undertake the Study, in close cooperation with the authorities concerned of the Government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

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

II. OBJECTIVES OF THE STUDY

The Objectives of the Study are :

1. To formulate a master plan on the agricultural and rural development for Central Region in the Mongolia; and
2. To carry out technology transfer to the Mongolian counterpart personnel in the course of the Study.



III. OUTLINE OF THE STUDY

1. the Study Area

The Study covers about 238,000km² in the Central Region in Mongolia (Aimag of Tov, Selenge, Bulgan and Ovorhangai and City of Ulaanbaatar, Darkhan and Erdenet).

2. Outline of Study

1. Phase I

1) Diagnostic Analysis

1-1) Collection and Review of Data and Information

- Natural Condition
- Socio-economic
- Agricultural
- Agricultural-economics
- Farmer's Organization
- Agricultural Supporting System
- Agricultural-Finance
- Agricultural and Livestock Processing Plants
- Others

1-2) Review of Existing Plan, Existing Examination and Associated Projects

- National Development Plan of the Government
- Agricultural and Livestock Production
- Agricultural Infrastructures in Rural Area
- Administration and Budget System
- Activities of Other Donor Agency
- Others

1-3) Field Survey

- Natural and Social Conditions
- Environment
- Farmer's Economy
- Others

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2) Analysis of Development Potential

- Market Analysis
- Production and productivity of Agriculture and Livestock
- Others

3) Formulation of the Substance of Development

- The Frame of Development
- The Development Schedule
- Others

II Phase II

4) Formulation of Master Plan on the Integrated Agricultural and Rural Development

- Agricultural Administration and Institutional System
- Agricultural Development
- Livestock Development
- Agricultural and Livestock Processing Development
- Agricultural Market
- Rural Infrastructure
- Farmer's Support System
- Others

5) Selection of the Model Program and Project

6) Formulation of Model Program and Project Schedule

- Agricultural and Rural Development Project
- Agricultural Administration and Institutional System Program
- Improvement of Management and Agricultural Technology Development Program
- Others

IV. STUDY SCHEDULE

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

V. REPORTS

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

1. Inception Report

Twenty(20)copies at the commencement of the Phase I field work.

2. Progress Report(1)

Twenty(20)copies at the end of the Phase I field work.

3. Interim Report

Twenty(20)copies at the commencement of the Phase II field work.

4. Progress Report(2)

Twenty(20)copies at the end of the Phase II field work.

5. Draft Final Report

Twenty(20)copies at the end of the Phase II home office work. Mongolia provides 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 one(1)month after receiving Mongolia's comments on the Draft Final Report

VI. UNDERTAKING OF THE GOVERNMENT OF MONGOLIA

1. To facilitate smooth conduct of the study, the Government of Mongolian 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 Mongolia for the duration of their assignment therein, and exempt them from alien registration requirements and consular fees.

(3) to exempt the members of the Japanese study team from taxes, duties and other charges on equipment, machinery and other materials bought into Mongolia 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 Japanese study team for their services in connection with the implementation of the Study.

- (5) to provide the necessary facilities to the Japanese study team for remittance as well as utilization of the funds introduced into Mongolia 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, documents (including photographs and maps) and specimens related to the Study out of Mongolia to Japan.
- (8) to provide medical services as needed. Its expenses will be chargeable on the members of the Japanese study team.
- (9) to provide the necessary facilities to the Japanese study team for unrestricted re-export of equipment and machinery brought into Mongolia for the conduct of the Study.
- (10) to secure permission to use walkie-talkies and other wireless telecommunications for execution of the field study.
- (11) to provide services of liaison staff, local guides, laborers, drivers, fuel, rent-a-car etc.

2. The Government of Mongolia 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. The Economics and International Cooperation Department, The Ministry of Food and Agriculture, (hereinafter referred to as "EICD") 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.

4. EICD shall, at its own expense, provide the Japanese study team with the followings, in cooperation with other organizations concerned.

- (1) available and data information related to the Study.
- (2) counterpart personnel,
- (3) suitable office space with necessary equipment in Ulaanbaatar and Survey Sites.
- (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, the study teams to Mongolia.
- (2) to pursue technology transfer to the Mongolian counterpart personnel in the course of the Study.

VIII. CONSULTATION

JICA and the Government of the Mongolia shall consult with each other in respect of any matter that any 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	19	20	21		
Work in Mongolia																							
Home office work in Japan																							
Phases	Phase I										Phase II												
Reports	△ IC/R						△ P/R(1)			△ IT/R					△ P/R(2)			△ DF/R			△ F/R		

◎ Comments on DF/R by the Mongolian side

- (Remarks)
- IC/R : Inception Report
 - P/R(1) : Progress Report (1)
 - IT/R : Interim Report
 - P/R(2) : Progress Report (2)
 - DF/R : Draft Final Report
 - F/R : Final Report

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2.2

MINUTES OF MEETING
FOR
THE MASTER PLAN STUDY
ON
THE INTEGRATED AGRICULTURAL AND RURAL DEVELOPMENT
IN
CENTRAL REGION
IN
THE MONGOLIA

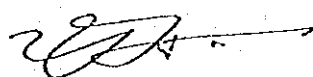
The preparatory study team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA"), headed by Mr. Yutaka Sasaki , visited the MONGOLIA from March 7 to 20 , 1994 for the purpose of discussing and confirming the Scope of Work for the MASTER PLAN STUDY ON THE INTEGRATED AGRICULTURAL AND RURAL DEVELOPMENT IN CENTRAL REGION IN THE MONGOLIA (hereinafter referred to as "the Study").

The Team had a series of discussions with the officials concerned of the Economics and International Cooperation Department (hereinafter referred to as "EICD"), Ministry of Food and Agriculture (hereinafter referred to as "MFA") on the Scope of Work for the Study. The list of participants in a series of meetings is attached in the Annex 1.

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

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

1. EICD shall supply the Japanese study team offices equipped with electricity , water supply , and telephones in Ulaanbaatar , and in other aimag's center offices.
2. The Japanese study team shall carry out the Initial Environmental Examination which includes collection of existing data , additional investigation to identify the environmental conditions and preliminary assessment of potential environmental impact of the proposed project.



But, all procedures required by the Mongolian laws of environment and or regulations shall be taken by EICD. Necessity of detailed Environmental Impact Assessment will be discussed between Mongolian side and the Japanese study team.

3. EICD requested that the following equipment necessary for the Study be provided by JICA.


The Team promised to convey its request to the Government of Japan.

- copymachine
- survey equipments
- vehicles

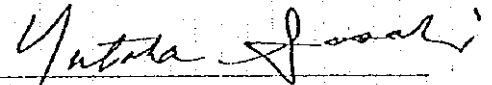
4. EICD requested the counterpart training in Japan. The Team promised to convey its request to the Government of Japan.

5. The team requested EICD organize Steering Committee for the Study and EICD agreed upon this request.

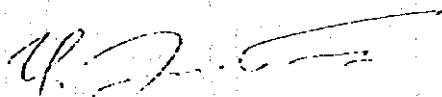
Ulaanbaatar
17 March, 1994



Mr. Chultemyn Perenlei
General Director,
Economics and International Cooperation
Department,
Ministry of Food and Agriculture



Mr. Yutaka Sasaki
Leader,
JICA Study Team



Mr. Choindongiin Enebish
Deputy Director,
Department of Industrial Trade and Cooperation,
Ministry of Trade and Industry



LIST OF PARTICIPANTS

MEA

Mr. *G. Surenjargal* Deputy Minister

EICD

Mr. *Ch. Perenlei* General Director

Mr. *D. Dorligsuren* Deputy Director

Mrs. *R. Durima* Officer

Ministry of Trade and Industry

Mrs. *L. Nasanbuyan* Assistant Director

The Team

Mr. *Yutaka Sasaki* Leader

Mr. *Kensyu Oosawa* Member

Mr. *Yosio Watanabe* Member

Mr. *Tutomu Kananaya* Member

Mr. *Masaki Oga* Member

Mr. *Naoto Morioka* Member

The Japanese Embassy in Mongolia

Mr. *Keizo Kagawa* First Secretary

Members of Steering Committee

1. Chairman of Steering Committee:

Deputy Minister of Food and Agriculture (MFA)

2. Coordinator of Steering Committee:

General Director of Economic and International Cooperation Dep., MFA

3. Members:

(1) General Director of Dep., National Development Board (NDB)

(2) Deputy Minister of Trade and Industry (MTI)

(3) Officer of Asian and African Dep., Ministry of Foreign Relations (MFR)

(4) General Director of Technology and Investment Policy Dep., NDB

(5) Director of International Co-operation Dep., Ministry of Nature and Environment (MNE)

(6) Director of Agricultural Dep. of Ulaanbaatar city

(7) General Director of Science and Technology Dep., Ministry of Science and Education (MSE)

(8) General Director of Medical Aid Dep., Ministry of Health (MOH)

(9) General Director of City Construction, Architecture, Social Service Dep., Ministry of Infrastructure Development (MID)

(10) Head of Central Energy Network, Ministry of Energy (MOE)

List of Study Team Members and Counterparts

Member' Name	Assignment	Counterparts' Name and Position
K.Hattori	Team Leader	D.Dorligsuren : General director of EICD, MOFA
	Environment	D.Avaadorj : Chief of Section, Rangeland institute, MNE Sh.Bayasgalan : Chief of Section, Hydro meteorological research institute, MNE E.Oyunchimeg : Officer of autoroad dep., MID
T.Tajiri	Agricultural Institutional System	D.Dorligsuren : -do- Z.Oyuntsetseg : Officer of the EICD N.Batjargal : Officer of Animal husbandry dep. G.Hishgee : Officer of Crop, machinery and irrigation dep.
	Irrigation & Drainage	D.Batbayar : Research worker of Water policy research institute, MNE Luvsandavaajav : Head of section of Water policy research institute, MNE D.Avaadorj : -do- T.Lubsanbud : Officer of Crop, machinery and irrigation dep.
H.Takai	Land Use	D.Avaadorj : -do-
	Rural Society	Ch.Tungalag : Officer of the EICD
T.Kiyonaga	Meteorology	Sh.Bayasgalan : -do-
	Hydrology	Luvsandavaajav : -do-
K.Kuniyasu	Rural Infrastructure	E.Oyunchimeg : -do- T.Lhagva : Officer of Crop, machinery and irrigation dep.
	Soil	G.Mijiddorj : Director of Plant science and agricultural research institute
S.Takahashi	Cultivation	G.Hishgee : -do- Ts.Galbadrakh : Officer of Crop, machinery and irrigation dep. Ts.Horloobaatar : Officer of Crop, machinery and irrigation dep.
	Agricultural Economy	D.Dorligsuren : -do- Z.Oyuntsetseg : -do- Ch.Tungalag : -do-
K.Sakai	Market-Economy	
	Finance	D.Dorligsuren : -do-
Y.Shinomi	Farm Management	G.Hishgee : -do-
	Agricultural Farming & Extension	R.Namkhai : Officer of the EICD
T.Takano	International Trade	R.Namkhai : -do-
	Livestock Development	N.Batjargal : -do- S.Namjildorj : Officer of General dep. of State Veterinary Service G.Unenbat : Officer of Animal husbandry dep. G.Hashbaatar : Officer of Food department
K.Okano	Animal Products marketing & processing	
	Facilities Planning	T.Enebish : Officer of Macro-economic policy dep. of National Development Board
K.Okano	Farmland Protection	D.Avaadorj : -do-
	Agro-products Marketing & Processing	G.Hashbaatar : -do- N.Tsagaach : Officer of Technology and investment policy dep. of NDB
K.Okano	Project Evaluation	Z.Oyuntsetseg : -do-
	Economic & Financial Analysis	Z.Oyuntsetseg : -do-

Working Group's Members (organized by counterparts)

Chairman	: D.Dorligsuren	General director of EICD, MOFA
Deputy Chairman	: D.Bayartsogt	Deputy director of EICD, MOFA
Coordinator	: A.Shiilegdamba	Officer of EICD, MOFA
	: D.Dalantainyan	Officer of EICD, MOFA

Annex-4

LIST OF STUDY TEAM MEMBERS

Name	Assignment
Koji Hattori	Study Team Leader, Environment
(Masaru Sasaki) 「Teruhisa Tajiri」	Agricultural Institutional System, Irrigation , Drainage
Hiroyuki Takai	Land Use , Rural Society
Toshiyuku Kiyonaga	Hydrology & Meteorology , Rural Infrastructure
(Kazuo Ogawa) 「Katuto Kuniyasu」	Soil , Cultivation
(Kunihiro Ozaki) 「Shuichi Takahasi」	Agricultural Economy , Market-Economy, Finance
Kiyoshi Sakai	Agricultural Farming , Farm Management, Extension , International Trade
Yukio Shinomi	Development of Livestock , Marketing & Processing of Livestock products
Teruhiko Takano	Facilities Planning , Presevation of Farmland
Kazuo Okano	Marketing & Processing of Agricultural Products, Project Evaluation , Economic & Financial Analysis
Toshio Hujino	Coordinator
Ren Saima	Interpreter
「Noriko Katou」	Interpreter

Notes : () : took only Phase I Study 「 」 : took only Phase II Study

Annex-5

Table of Work Schedule (1)

Study Item	FY 1994												FY 1995											
	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
A. Study Period																								
B. Phase																								
C. Fiscal Year																								
D. Explanation of Report																								
1. Advance Preparation in Japan																								
2. Phase I Study																								
1) Field Survey (Stage 1)																								
(1) Briefing/Discussion of Inception Report, etc.																								
(2) Information, Riview of Existing Plan, etc., Field Survey, etc.																								
① Review of Economic Policy																								
② Analysis of Production Sector																								
③ Analysis of Infrastructure for Agriculture, Livestock and Rural																								
④ Natural Conditions																								
⑤ Environment																								
⑥ Additional Contracted Survey of Project Site																								
Step 1 Analysis of Present Cond. Asses. of Obstructing Factors Asses. of Need for Development																								
(3) Step 2 Potential																								

Legend :  Preliminary Preparation  Field Survey  Work in Japan  Explanation of Report  Others

Table of Work Schedule (2)

Study Item	FY 1994												FY 1995											
	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
(4) Preparation and Briefing of Progress Report (1)																								
2) Work in Japan (Stage 2)																								
(1) Step 3 Formulation of the Substance of Development																								
(2) Matters Related to Environment																								
(3) Preparation of Interim Report																								
3. Phase II Study																								
1) Field Survey (Stage 3)																								
(1) Briefing/Discussion of Interim Report																								
(2) Survey Supplementary to Phase I																								
(3) Step 4 Formulat. of Master Plan on the Integ. Agri. and Rural Develop.																								
(4) Step 5 Selection of the Model Program and Project																								
(5) Matters Related to Environment																								
(6) Preparation and Briefing of Progress Report (2)																								
2) Work in Japan (Stage 4)																								
(1) Step 6 Formulation of Model Prog. and Project Schedule																								
(2) Preparation of Draft Final Report																								
4. Briefing/Discussion of Draft Final Report in Xongol																								
5. Preparation of Final Report																								

Legend : — Preliminary Preparation  Field Survey  Work in Japan  Explanation of Report Others

Work Schedule for Study Team

Assignment	FY 1994												FY 1995											
	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3			
Team Leader																								
Environment																								
Institutional System																								
Irrigation & Drainage																								
Land Use																								
Rural Society																								
Meteorology/Hidrology																								
Rural Infrastructure																								
Soil																								
Cultivation																								
Agricultural Economy																								
Finance																								
Farm Management																								
Agricultural Farming & Extension																								
International Trade																								
Livestock Development																								
Animal Products Marketing & Processing																								
Facilities Planning																								
Farmland Protection																								
Agro-Products Marketing & Processing																								
Project Evaluation																								
Economic & Financial Analysis																								

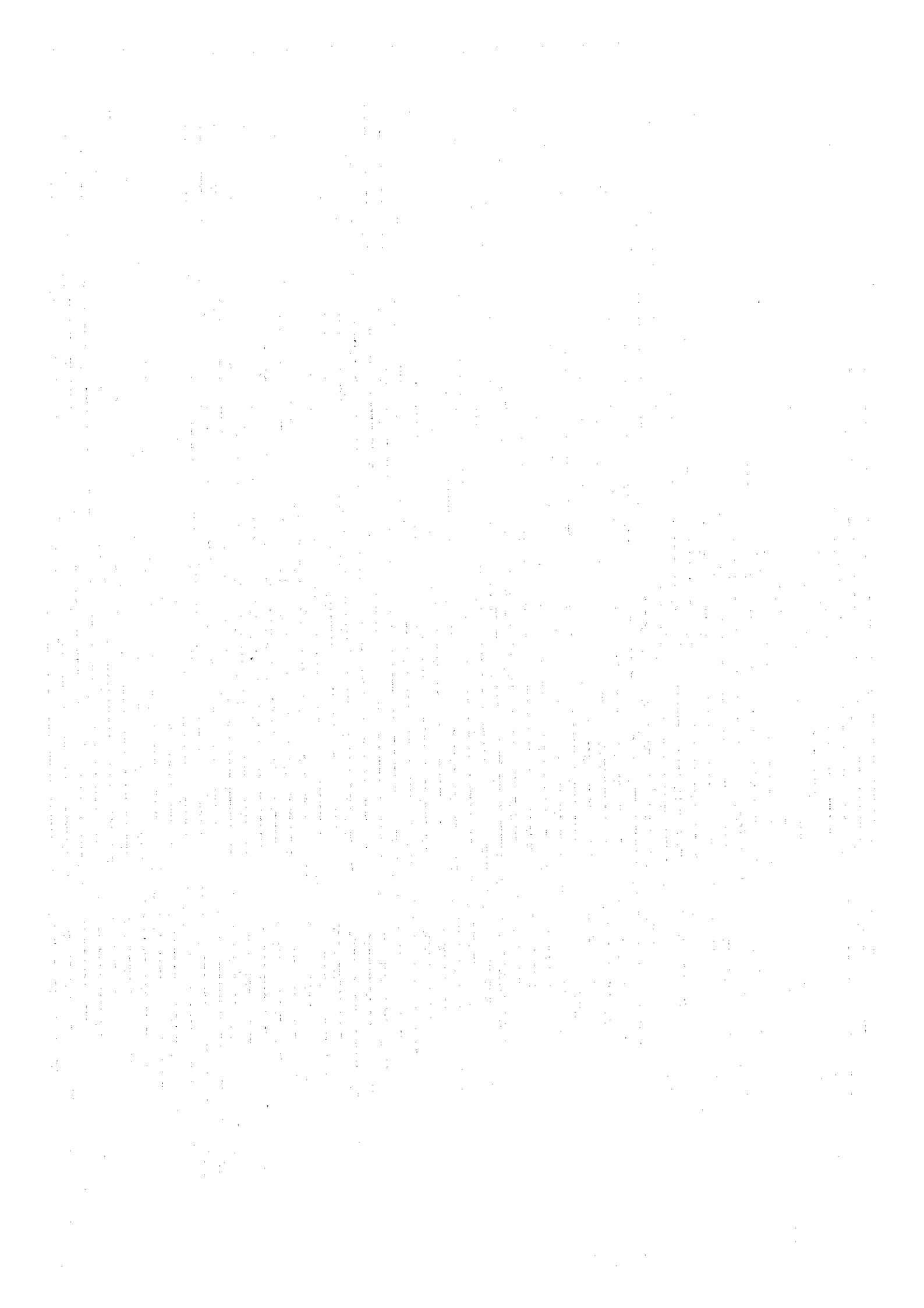
Legend :  Field Survey  Work in Japan

Collected Data

Item	DATA & INFORMATION
Cultivation	PLANTS FOR GREEN MANURE AND FEED IN MONGOLIA
Cultivation	VEGETABLES AND THEIR CULTIVATION IN MONGOLIA
Agricultural Economy	Ulaanbaatar Membership Business Directory
Farming	Pattern norm of the Machinery Agriculture works
Farming	Mongolian Agricultural Management Development Project(Crop Farm Management Training P
Farming	Agriculture Development Project(F/R)
International Trade	The Designing and Implementation of Export Promotion and Development Policy of Mongol
International Trade	PRODUCTION & TRADE YEARBOOK (1983-1993)
Livestock Develop.	Animal Hygien and Genetic Control Low
Livestock Develop.	Fodder Production and Feeding Technology for Mechanized Dairy Farm
Livestock Develop.	Policy Alternatives for Livestock Development (No.4),1993
Livestock Develop.	Policy Alternatives for Livestock Development (No.6),1993
Livestock Develop.	Livestock Feed Improvement Project Final Report,1992
Livestock Develop.	Livestock Sector Study Phase 2 Draft Final Report,1993
Livestock Develop.	Livestock Genepool Project Mission Report,1995
Livestock Develop.	Livestock Population and Productivity and the Human Population
Livestock Develop.	Pilot Livestock Sample Survey Report
Livestock Develop.	Statistical Data of Livestock Sector in 1994
System Design	Designing Standard for Building Works
Marketing/Processing	PRICE SURVEY RESULTS OF MAIN AGRICULTURAL PRODUCTS BY AIMAG
Marketing/Processing	PROJECT ON ESTABLISHMENT OF SUGAR FACTORY IN ZUUN-KHARAA
Marketing/Processing	AGRICULTURAL PROCESSING, STORAGE & DISTRIBUTION PROJECT
Economic Analysis	Mongolia Annual Economic Development Report
Economic Analysis	MONGOLIAN ECONOMY AND SOCIETY IN 1993
Economic Analysis	MONTHLY BULLETIN OF STATISTICS (January 1995)
Economic Analysis	MONTHLY BULLETIN OF STATISTICS (April 1995)
Economic Analysis	MONTHLY BULLETIN OF STATISTICS (July 1995)
Miscellaneous	INFORMATION OF MONGOLIA
Miscellaneous	NATIONAL PROGRAMME ON THE POPULATION'S FOOD SUPPLY IMPROVEMENT
Miscellaneous	-do- Sub Project(Food grain & bread, Sugar, Vegetable oil, Fruit & berry, Meat, Milk
Miscellaneous	Action Program of the Government of Mongolia
Miscellaneous	National Privatization Law

Collected Data

Item	DATA & INFORMATION
Environment	National Report Mongolia June 1991
Environment	Management law for administration units in Mongolia
Environment	Mongolia National Plan of Action to Combat Desertification
Environment	Government Regulation No.121 on the Environmental Impact Assessment Procedure
Agricultural system	Mongolia Agricultural Sector Program Loan TA Project(DF/R)
Irrigation	Irrigation Rehabilitation Project (FAO/ADB)
Irrigation	Water Policy Institute(Activities & Duty)
Land Use	Land Use by Aimag(1986 - 1989)
Land Use	Land law
Hydrometeorology	Mean monthly precipitation (mm) (1961-1992)
Hydrometeorology	Meteorological Location map (1/1,000,000)
Hydrometeorology	Hydrological Location map (1/1,000,000)
Hydrometeorology	River system map
Hydrometeorology	Number of Rivers, Lakes, and Springs
Hydrometeorology	Ground water and surface water Resources
Hydrometeorology	Mean monthly water discharge of study area (m ³ /sec)(1973-1992)
Hydrometeorology	Irrigation water requirement by crops
Hydrometeorology	water consumption
Hydrometeorology	Mean monthly temperature (°C) (1962-1992)
Hydrometeorology	Mean monthly rainy days (days)
Hydrometeorology	Mean monthly Wind speed, Wind vane (m/sec, %)(1982-1992)
Hydrometeorology	Mean monthly Humidity (%) (1961-1992)
Hydrometeorology	Mean monthly Solar radiation (hour) (1961-1992)
Hydrometeorology	Mean monthly Soil temperature (°C) (1959-1991)
Hydrometeorology	Mean monthly Snowfall days (days)
Hydrometeorology	Evaporation (mm) (April-Oct.)
Rural Infrastructure	Central Energy System
Rural Infrastructure	Utilization of wells by Aimag
Rural Infrastructure	water supply area of one well by Aimag
Cultivation	VARIETIES OF MAIN CROP AND THEIR CHARACTERISTICS IN MONGOLIA
Cultivation	CONTROL OF CROP DISEASES, PESTS, WEEDS IN MONGOLIA
Cultivation	STANDARD OF FERTILIZER APPLICATION IN MONGOLIA
Cultivation	CULTIVATION METHOD OF WHEAT, BARLEY IN CENTRAL MONGOLIA



JICA